

**MANAGING RACE/ETHNICITY AND GENDER
DIVERSITY IN THE
CONTEXT OF
TOTAL QUALITY MANAGEMENT**

by:

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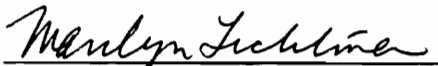
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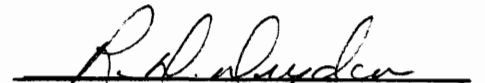
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ABSTRACT

This document serves as a means of enlightening organizations that are not practicing TQM/continuous improvement or managing race/ethnicity and gender diversity or that are practicing both but want to benchmark their practices against other organizations used in this study or against the program the researcher designed to assist organizations in the management of race/ethnicity and gender diversity about managing race/ethnicity and gender diversity in the context of large-scale organizational change efforts. Both TQM and race/ethnicity and gender diversity are defined in this document. Also discussed are the reasons why organizations should manage race/ethnicity and gender diversity as a means of improving overall organizational performance.

This document also contains an extensive body of knowledge review that discusses both phenomena extensively. Also outlined in this document is the research methodology used by this researcher to collect the necessary data for carrying out this research. Discussed in the research methodology section are the handling of the logistics, practicalities, ethical issues and confidentiality related to entry into the organizations used in this research and data collection while in the organizations. This research methodology chapter also contains the data analysis techniques the research used to analyze the data.

In the results chapter of this document, the research presents a detailed case description about the data found in each organization pertaining to the research. The detailed case description contains: a brief overview of the organization, its TQM efforts, the endeavors that the organization uses to manage race/ethnicity and gender diversity, the means the organization uses to achieve the elements (working together; empowerment, participation, and involvement; and communication) that relate to both TQM and diversity management; and a summary. Also in this chapter is a comparison of each organization's endeavors and means to the other organizations used in the study.

Chapter 5 contains the conclusions and interpretations of the general findings pertaining to the information rendered from this research pertaining to how the organizations used manage race/ethnicity and gender diversity in a TQM environment. Chapter 6 also contains the program this researcher developed to assist organizations in managing race/ethnicity and gender diversity in the context of large-scale organizational change efforts aimed at improving organizational performance. The information the researcher used to compile this chapter is based on the data, facts, information, knowledge, past and present experiences acquired while doing the research endeavor, and while a graduate student at Virginia Tech.

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CHAPTER 1 INTRODUCTION

1.2. Background

1.2.1. Research Vignette

I viewed, with great interest, a segment of "60 Minutes" on Sunday, April 25th, 1993 that focused on why African American students at Duke University, like many predominantly white universities, are segregating themselves from the mainstream. A "60 Minutes" reporter facilitated a dialogue about this issue with four students (one white female, one white male, one black female, and one black male). African American students at Duke are segregating themselves from other students by clustering together in the classrooms and sitting in the front of the class so the professor will know they are interested. They eat together in the dining halls, study in the Black Student Center instead of in the library, and don't live on campus but in student apartments off campus. Black students who decide to join predominantly white fraternities and sororities are viewed as outsiders and are no longer considered a part of the African American student community. All of the other predominantly white universities contacted by "60 Minutes" regarding this problem declined to be interviewed; however, "60 Minutes'" research revealed that the occurrence of self-selected segregation by African American students is widespread throughout America's predominantly white institutions.

The basis of the discussion between the students was to evaluate the core problem of why African American students feel they have to segregate themselves from the mainstream and to understand what is happening at Duke University that is causing this problem? The African American students concluded they are maintaining their cultural identity by "sticking together" as well as sustaining a level of comfort by being with others who share the same culture and heritage as they do. What the African American students see happening at the university is a culture where the majority tries to assimilate them into

the mainstream while ignoring the culture of the minority and not valuing or respecting them as people. They don't want to be assimilated or absorbed into the majority culture. They want to be a part of the mainstream culture while maintaining and having their individual and culture differences valued and respected. What is happening at Duke is the students are moving away from integration toward segregation which allows more homogeneous subsets to be created.

The administration promotes special initiatives for black students, such as the Black Student Center. One could assume the administration is either not aware of what is occurring, does not feel that it is important enough to take action, or feels it will eventually work itself out. Whatever the reason, what is occurring at Duke is an excellent example of not managing racial/ethnicity diversity, but letting the diversity manage the university. In my opinion, if the trend to segregate exists between the students, then it possibly exists between black and white employees throughout the university and in society in general.

Furthermore, Duke a recipient of the IBM/TQM grant, like many universities and organizations is trying to implement TQM as a process to improve organizational performance. What is happening at Duke is an interesting characterization of the problem I am studying. As the American workforce becomes more race/ethnicity and gender diverse, organizations are either struggling to manage this diversity or not attempting to manage it at all. Organizations that are trying to implement TQM are faced with even greater problems because they have to manage their race/ethnicity and gender diversity if the TQM process is going to be successful. TQM encourages people to work in teams with others who may be different. If race/ethnicity and gender diversity continue to go unmanaged or not managed effectively in organizations, the following risks will occur:

1. The risk of unmanaged conflict that will be more difficult to manage than if the organization had been proactive about trying to manage race/ethnicity and gender diversity.
2. The risk of racial and ethnic segregation.
3. The risk of the organization not being all it can be due to not tapping the full potential of all individuals.

However, if organizations foster and manage diversity, people will be more inclined to try to work harmoniously with others who are different in order to accomplish organizational goals.

1.1.2. Defining Managing Diversity and Total Quality Management

Copeland (1988) states that "rapidly changing demographics are forcing more and more Americans to interact with people different from themselves, people whom they do not understand and have unique values and ways of doing things." Therefore, diversity is defined as differences or dissimilarities among people (Rosener and Loden, 1991). There are many ways people differ. They differ according to ethnic background, gender, race, sexual orientation, age, physical disabilities, religious beliefs, educational background, cognitive style, personality type, geographic location, marital status, income, work experience, military experience, ability, opportunity, motivation, skill and parental status. This list is by no means exhaustive.

However, there are two dimensions of diversity being studied in the context of TQM for this research: race/ethnicity and gender diversity. In my opinion, America has been plagued with years of inequities against minorities and women. Moreover, these groups are entering the workforce in increasing numbers; therefore, organizations are going to have to be able to accept, respect, and utilize the talents and uniqueness these groups

bring with them to the organization. The changing demographics of the US workforce reflect the increase in these dimensions of diversity. The Hudson Institute reports in its *Workforce 2000: Work and Workers for the 21st Century*, that 61 percent of the new workers will be women, and 29 percent will be minorities. Therefore, organizations need to plan how to manage these increasing numbers of race/ethnicity and gender diverse employees as a means of increasing their competitiveness and organizational performance. Before developing a plan to manage race/ethnicity and gender diversity, organizations need to understand that the management of workforce diversity is a philosophy that suggests organizations make whatever changes necessary in their systems, structures, and management practices to eliminate any subtle barriers that might inhibit people from reaching their full potential (Gerber, 1990). In attempting to manage the diversity of their workforce, organizations should develop steps to assist in tapping the full potential and talents of all employees (Thomas, 1991). Organizations must also empower employees to participate in the management process, which includes planning, problem solving, decision making, and the operation of the organization (Thomas, 1991).

Many organizations are implementing Total Quality Management (TQM) within the organization as a means to improve organizational performance. One of the main goals of TQM involves keeping the customer satisfied through continuously improving the quality of goods provided and services rendered (Deming, 1986 and McCabe, 1989). TQM is based on the theory that the greater the involvement an employee has in determining organizational goals, the more committed he or she will be to achieving them (Ishikawa, 1985). Like managing race/ethnicity and gender diversity, TQM requires organizations to make changes in their systems, structures, and management practices that will encourage and allow employees to utilize their full potential. TQM also encourages teamwork, empowerment, employee commitment, participative management, communication and sharing of information, employee and group decision making, problem solving, and

education and training (Crosby, 1984; Deming, 1986; Feigenbaum, 1983; Juran, 1988; and Ishikawa, 1985).

The fundamental engines that drive TQM are empowering, energizing, and enabling individuals to work with one another (Patton, 1992). In essence, the TQM process encourages people to interact with others who are different from themselves. Therefore, an assumption is that organizations have to manage their race/ethnicity and gender diversity if they are going to continuously improve organizational performance.

Many may question why an industrial engineer is interested in researching the management of racial/ethnicity and gender diversity in a TQM environment. However, a main objective of industrial engineering is the improvement of processes, systems, products, and services and the integration of people, materials, machines, capital, and information in the improvement effort. Diversity management involves utilizing the full potential of all employees in the operation of the organization. TQM focuses on improving the quality of goods and services presented to the customer. Therefore, diversity management and TQM qualify as areas of study for an industrial engineer since they involve the integration of people in the improvement of organizational systems and processes that, in turn, will improve organizational performance.

1.2. Scope of This Research

A researcher begins with a topic that is very large and then funnels the topic toward a specific issue or phenomenon. It was difficult to narrow this research down to a practical level. From the beginning, my research interest was in the field of total quality management. However, after hearing and reading about the need for organizations to manage workforce diversity as a competitive advantage aimed at improving overall performance, I recognized that managing workforce diversity had a lot of attributes and elements that were similar to TQM. I began to read what the literature said about the

management of workforce diversity in the context of TQM. There was very little literature addressing the management of diversity in the context of TQM, so I decided to research this area myself. The next dilemma I faced was how to perform this type of research and what am I trying to accomplish by doing it.

The literature on TQM states that many organizations are struggling with the implementation and practice of the TQM process. A conclusion I've drawn from the literature is that this lack of success may be due to organizations not understanding the human component of TQM and its relationship to the management of people within the organization. Managers do not understand that before they can successfully implement TQM, they have to make sure that all employees are included and understand TQM (Feigenbaum, 1983 and Ishikawa, 1985). Effective TQM implementation, I believe, is dependent on this happening. However, In my opinion, most managers are not familiar with or interested in the management of diversity philosophy; therefore, they do not realize its contribution to TQM. Therefore, I will undertake the task of exploring and describing what organizations that are successful in the practice of TQM and diversity management are doing to manage race/ethnicity and gender diversity. An objective of these tasks is to enlighten organizations about race/ethnicity and gender diversity management and its practice in organizations that are successful at TQM.

1.2.1. Research Questions

The research question transposes the research problem into question form. Defining the research question may be the most important step in the research process.

1. How do organizations that successfully practice TQM manage race/ethnicity and gender diversity?
2. How does an organization that is successful at the practice of managing numerous areas of diversity manage race/ethnicity and gender diversity?

3. How is the practice of managing race/ethnicity and gender diversity different or similar in a TQM environment in comparison to an organization that is considered one of the best at diversity management?
4. How would I manage race/ethnicity and gender diversity aimed at improving organizational performance based on the knowledge gained from this research?

1.2.2. Research Objectives

The research objective identifies what can be learned, gained, or used from the research either through prediction and description. This research has several objectives:

1. To benchmark how organizations that effectively practice TQM manage race/ethnicity and gender diversity against an organization that is considered a leader in diversity management.
2. To investigate, generate, and share knowledge that will help organizations understand how numerous organizations that effectively practice TQM and an organization that is considered one of the best at diversity management manage race/ethnicity and gender diversity.
3. Design and develop a program to assist organizations in race/ethnicity and gender diversity management in the context of large-scale organizational change efforts aimed at improving organizational performance.

1.2.3. Problem Statement

The problem statement is the reason you do research. The problem statement is the center/core around which the research effort evolves. The researcher identifies a problem and then engages in research to generate new knowledge or to test or confirm existing

hypotheses with regard to the problem. The following paragraphs will capture the problem I will explore.

As the American workforce becomes more diverse, my intuition tells me that organizations are currently struggling and will continue to struggle with managing and understanding the effect of diversity on organizational performance. Furthermore, organizations are toiling with TQM as a means in helping them improve organizational performance. Management does not understand why their TQM efforts are stifled and not yielding the results that were intended. I perceive this deficiency in the generation of new ideas and the lack in improvement of old ones as a result of the utilization of only a fraction of the mental potential existing in the organization.

I believe organizations must understand that everyone in the workforce has to be involved in the improvement effort if the organization is to continuously improve. Organizations must utilize the full potential and capabilities of everyone in the organization in the development of new and innovative ideas and methods to produce quality products and services that will eventually lead to increased productivity, satisfied customers, and overall increased organizational performance.

1.2.4. Premises and Delimitations

Premises are propositions put forth as facts, strongly held assumptions, or as givens in rational arguments. Delimitations describe what a problem is not. The delimitations for this research are defined as follows:

1. Although the definition of workforce diversity encompasses many variables, the variables used in this study will be limited to race/ethnicity and gender.

2. This research will use the Senate Productivity and Quality Award (SPQA), Award for Continuing Excellence (ACE), and the Malcolm Baldrige Award as surrogate measures to operationalize the outcome variable performance.

1.2.5. Conceptual Models

The conceptual model is a representation of how key pieces of your research fit together or affect each other. Figure 1.1 displays the global model of this research. In the global model, organizational leadership and management determine the degree to which an organization either does or does not practice race/ethnicity and gender diversity management in the context of TQM. The degree to which an organization practices diversity management while practicing TQM affects organizational performance at each of the six quality checkpoints (See Section 2.3.). The six quality checkpoints represent the organizing of quality efforts at different stages within the organizational system. Organizational performance is measured at each of the quality checkpoints (Sink, 1989). If the organization does a good job of practicing both diversity management and TQM, the organization will continue to improve its overall performance.

Figure 1.2. displays the conceptual model for this research. This conceptual model, within the scheme of the global model, represents race/ethnicity and gender diversity management, and TQM, and their effect on organizational performance.

1.2.6. Assumptions

Assumptions are conditions that are presumed and without them the research state would not be possible.

1. Organizations used in this research have exemplary cultures.

Global Conceptual Model of Research

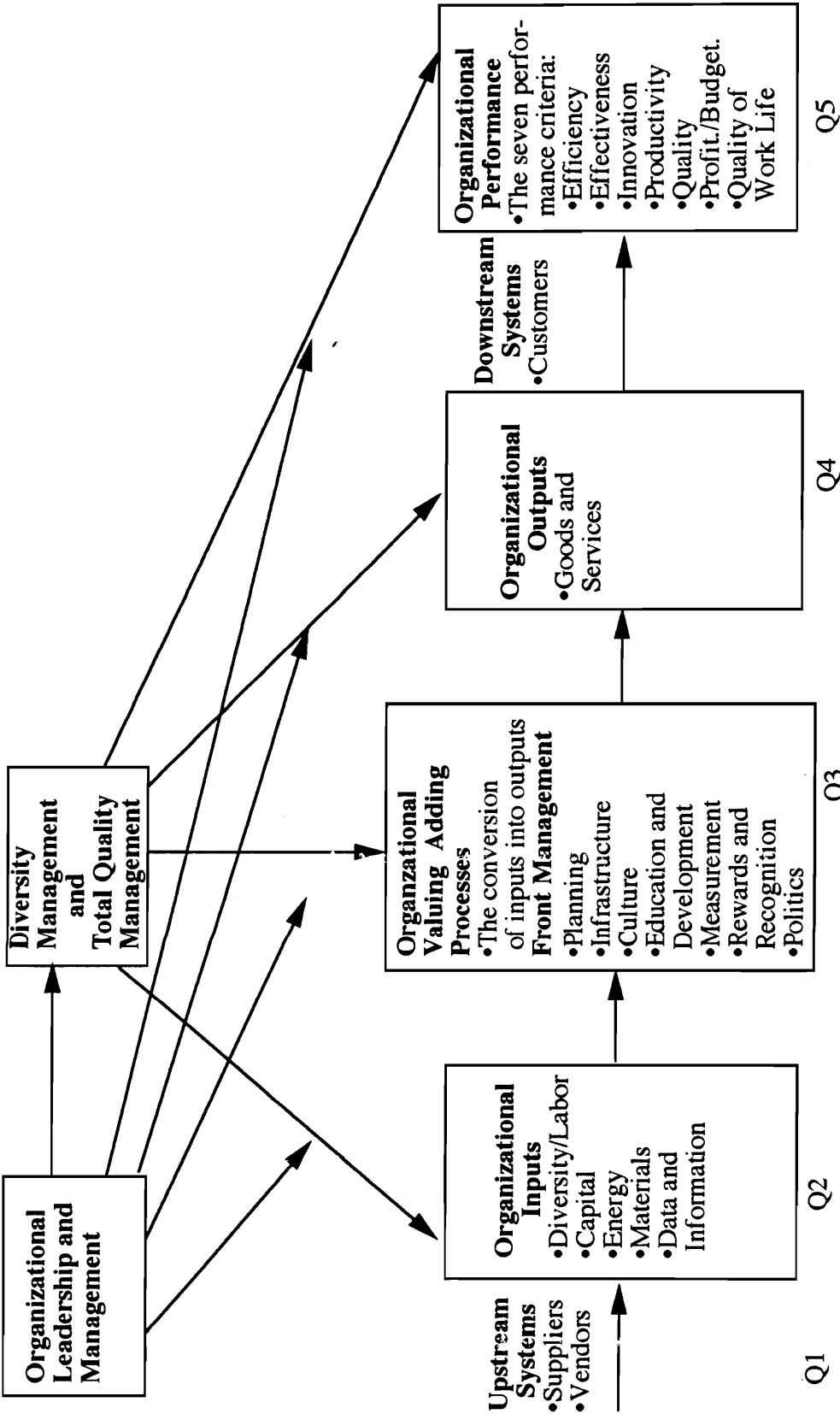


Figure 1.1.

Conceptual Model

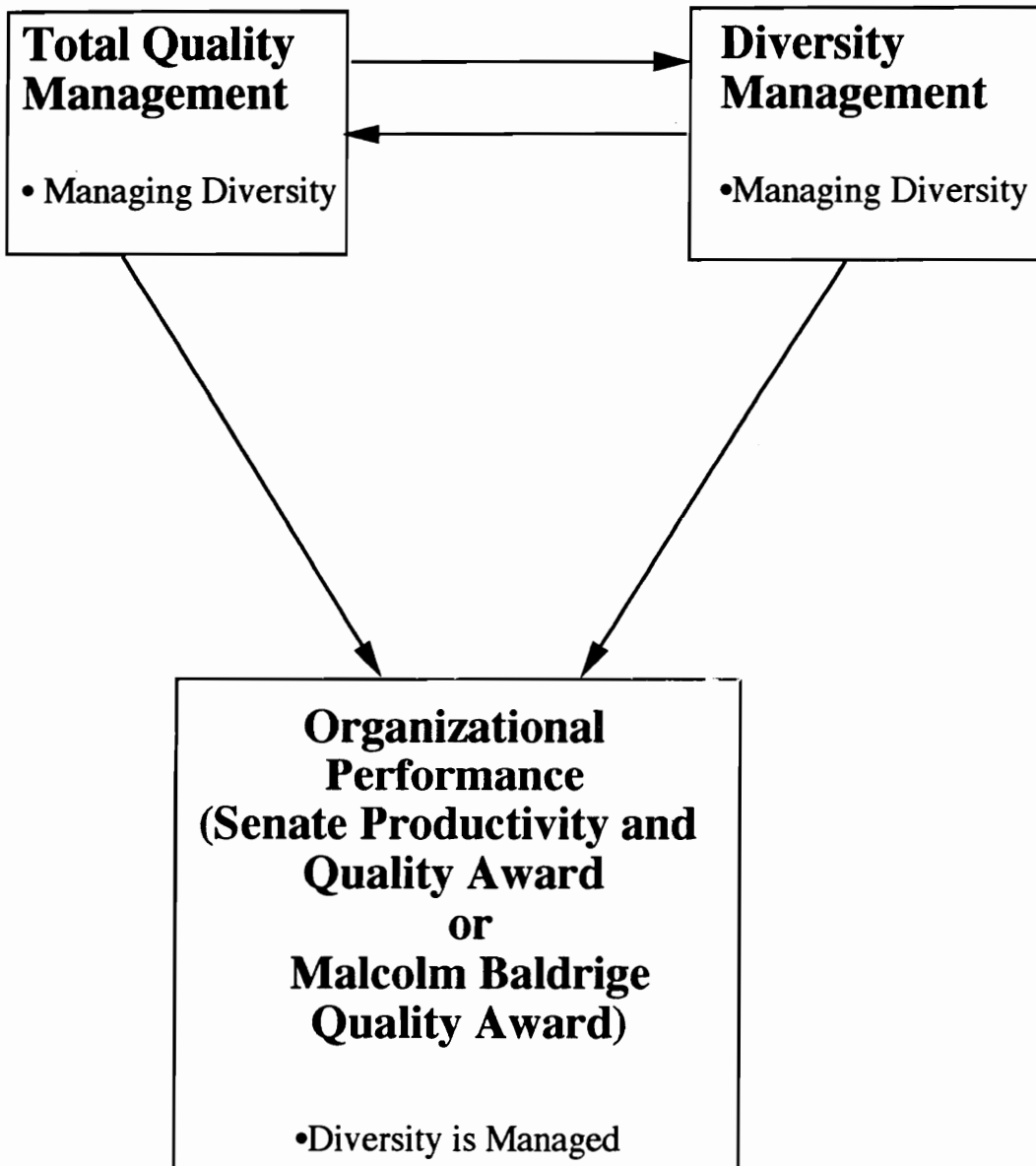


Figure 1.2.

2. SPQA, ACE and Malcolm Baldrige Award are valid and credible processes and, if an organization wins one of these awards, it has achieved excellence in organizational performance, as deemed by the SPQA and Malcolm Baldrige board members.

1.3. Desired Outputs, Outcomes and Products of this Research

Outputs are tangible consequences produced from research. Outcomes are tangible or intangible consequences that result from research.

1. Answering the research questions.
2. Accomplishing the research objectives.
3. Several papers and articles published in reputable journals after graduation.
4. Acceptance of at least one of my articles at a reputable conference after graduation.
5. Publication of a book based on this research.

1.4. Justification for This Research

I conducted research in the area of diversity management and TQM because both areas are receiving much attention in the management literature and in practice. I believe most organizations are struggling with the practice of both processes. However, I also believe organizations that are practicing TQM do not understand that both TQM and diversity management share common elements such as working together and teamwork, employee involvement and participation, sharing of information, and communication. In opinion, in order for an organization to successfully practice TQM, it has to be able to manage the elements that are generic to itself and diversity management. Therefore, this research will enlighten organizations that want to be successful in their practice of TQM of

the need and importance of the management of race/ethnicity and gender diversity.

Consequently, by researching these phenomena, I will show how both processes are interrelated and how race/ethnicity and gender diversity needs to be managed in the context of TQM in order for organizations to continuously improve their performance.

1.5. Dissertation Overview

Chapter 1 (Introduction) introduces the concepts of race/ethnicity and gender diversity management, TQM, and the need for research in these areas. Chapter 1 also identifies the scope of the research, research questions, research objectives, problem statement, premises and delimitations, conceptual models, outputs/outcomes, assumptions, and the justification for this research. Chapter 2 (Review of the Body of Knowledge) of this dissertation encompasses background information about research. Also included in this chapter is a review of the body of knowledge on workforce diversity, organizational culture, total quality management, elements that relate to both TQM and the management of race/ethnicity and gender diversity, and quality awards. References for the review include literature, attending conferences and seminars about diversity management and TQM, observations, discussions with managers and employees within organizations about these phenomena, and discussions with people who are knowledgeable about these areas. Chapter 3 (Research Methodology) outlines how this research was conducted. In this chapter, the type of research I'm doing for this dissertation, design issues and choices for the research, data collection and storage, data analysis, types of data sources used to answer research questions, conclusions, and interpretations are described in detail. Tools and techniques used in the research process are also described explicitly. Chapter 4 (Results) includes results from the four organizations where data was gathered. Details about these four organizations' endeavors that constitute the management of race/ethnicity and gender diversity, resources used to initiate and manage elements that relate to both

TQM and race/ethnicity and gender diversity management, and the comparison of each organization's endeavors and resources to other organizations that participated in this study. The detailed case descriptions for each of these four organizations are located in Appendix B. Chapter 5 (Interpretations and Conclusions) includes the interpretation of the similarities and differences between the four organizations used in this research. Chapter 6 contains a program to assist organizations in the management of race/ethnicity and gender diversity in the context of large-scale organizational change efforts aimed at improving organizational performance. Chapter 7 (Evaluation of the Research) addresses the quality of the research. Chapter 8 (Next Steps) contains what research could or should be done to further examine this topic. Chapter 9 (Lessons Learned) contains the lessons I learned while conducting this research. This chapter also contains the advice I would give to new graduate students entering the Management Systems Engineering option.

Included in the Appendices is any supporting information or information not needed in the body of this dissertation. Appendix A contains the background on research. Appendix B contains the observation checklist used during quality team meetings. Appendix C contains key informant and focus group interview questions. Appendix D consists of the code list used to code the data used in the research. Appendix E contains the biographies of the experts in the field of diversity management. Appendix F contains my career plan and plan of study while at Virginia Tech.

CHAPTER 2 REVIEW OF THE BODY OF KNOWLEDGE

The body of knowledge is very important because it supplies the researcher with background information about his or her research area. The body of knowledge can range from books, periodicals, conferences to personal experiences. In this chapter, the body of knowledge review will include race/ethnicity and gender diversity management, culture, TQM, the elements that relate to both the management of race/ethnicity and gender diversity and TQM, and quality awards.

2.1. What is Workforce Diversity?

An example illustrating workforce diversity (See Section 1.1 on ways people differ) is a jar with an infinite number of red balls, white balls, blue balls, and gray balls. Contemporary organizations are akin to this jar in that they employ numerous types of individuals. Workforce diversity is the resulting product of the heterogeneous mixture formed when these elements are introduced into a homogeneous environment (Thomas, 1990). But, does a homogeneous environment really exist? Even if an organization or a work group consists of white males with the same educational level, these individuals may still have different cognitive styles and personality types that may cause conflict due to the differences of opinions and in decision making skills. But, before organizations can think of diversity in this context, they have to be able to manage race/ethnicity and gender diversity (cultural diversity), which are elements of diversity that this country has had problems with accepting and valuing since their inception. The management of race/ethnicity and gender diversity is vital if people within organizations are to understand and manage other areas of diversity. The challenge then becomes discovering the means to operationalize the management of race/ethnicity and gender diversity. Figure 2.1. exhibits

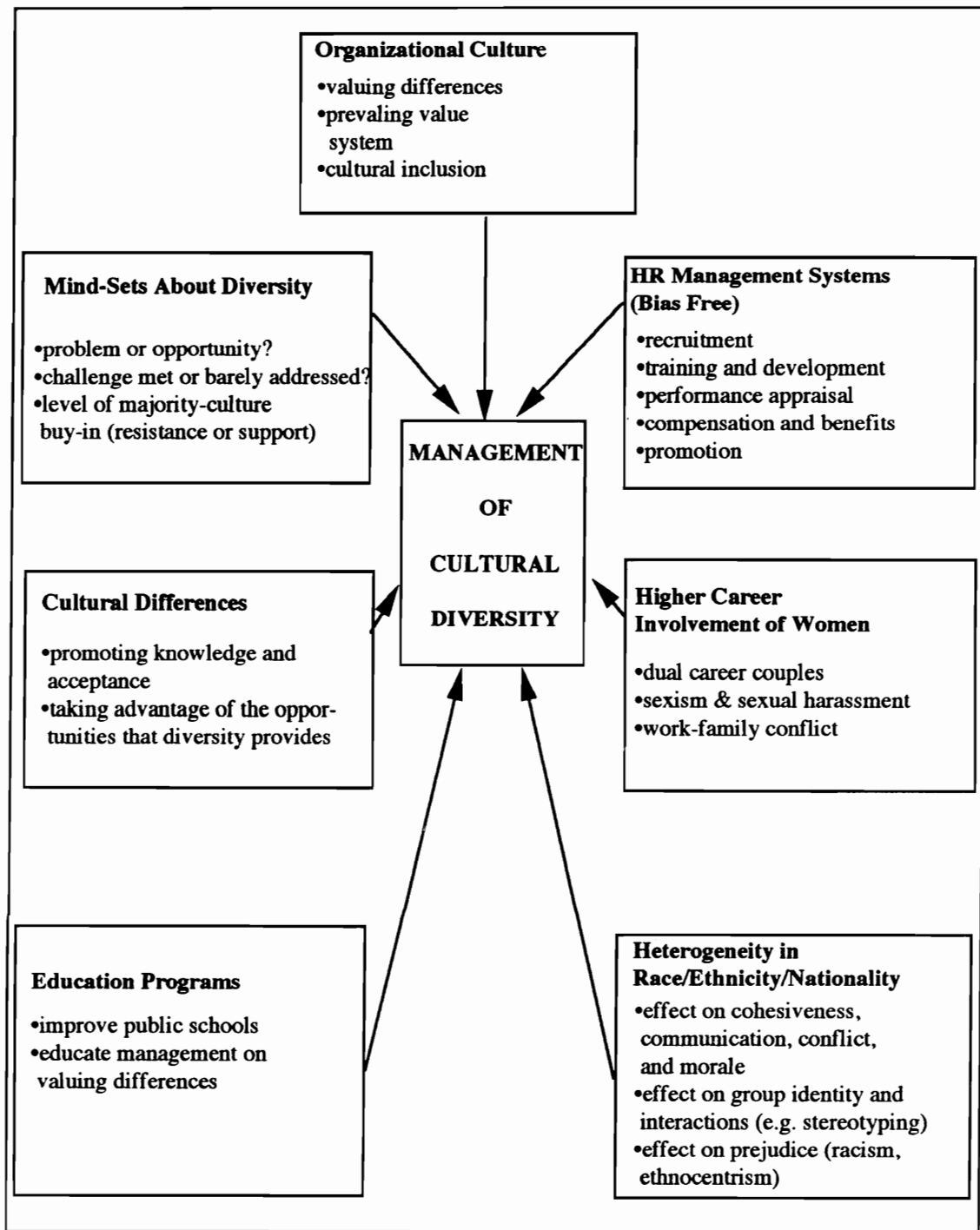


Figure 2.1. Spheres of Activity in the Management of Race/Ethnicity and Gender Diversity
(Cox & Blake, 1991)

the variety of management issues and activities related to hiring and effective utilization of race/ethnicity and gender diverse personnel.

There are three ways to deal with these types of diversity: affirmative action, understanding and valuing diversity, and managing diversity (Thomas, 1990). Affirmative action, understanding and valuing race/ethnicity, and gender diversity are based on acculturation and assimilating these diverse groups within the organization's culture. Managing race/ethnicity and gender diversity breaks the affirmative action cycle and focuses on the precept that the organization has to change its systems and culture (roots) to make it inclusive and receptive to race/ethnicity and gender diverse employee needs.

2.1.1. Differences between the Three Approaches to Dealing with Race/Ethnicity and Gender Diversity

Understanding race/ethnicity and gender diversity does not address whether the system or culture of an organization is managed effectively. It deals with relationships between individuals. If an organization wants to make a sustainable natural progress toward a well managed heterogeneous organization, the transformation process must include changing the system, culture, individuals and their interpersonal relationships (Thomas, 1990).

The difference between managing race/ethnicity and gender diversity, affirmative action, and valuing race/ethnicity and gender diversity is that managing this type of diversity assumes that the burden of adjustment or change is not solely placed on the individual, but that the organization is willing to change its culture to accommodate it (Thomas, 1990). Most organizations do not understand that there are numerous areas of diversity, such as educational level and cognitive style/personality type, that have a major impact on the overall effectiveness of the organization. Therefore, most organizations are not prepared or ready for an organizational shift or cultural change to manage non visual

areas of diversity when they don't understand or know how to manage visual differences such as race/ethnicity and gender diversity to improve organizational performance.

2.1.3. Affirmative Action

Affirmative action (AA) is an artificial intervention that is intended to correct the numerical imbalance caused by the discrimination against minorities and women in the workforce (Thomas, 1990). Affirmative action gets minorities and women through the doors and into the organization but other actions are necessary to get them empowered within the organization. The lack of upward mobility of these groups is still a problem in most organizations. Understanding, valuing, and managing race/ethnicity and gender diversity can remedy the "glass ceiling" and "glass wall" effect most minorities and women experience in organizations. The glass ceiling is an impenetrable barrier that's invisible and denies minorities and women lateral movement as well as upward mobility within an organization (Solomon, 1990).

Affirmative action programs grew out of a series of assumptions (Thomas 1991):

1. The mainstream in US business is made up of white males.
2. Women and minorities are excluded from this mainstream because of widespread racial, ethnic, and sexual prejudices.
3. Such exclusion is unnecessary, given the strength of the US economic edifice.
4. Furthermore, it is contrary to both good public policy and common decency.
5. Therefore, legal and social coercion are necessary to bring about change.

The interventions of affirmative action used to include and improve the status of women and minorities in organizations are:

- Outreach efforts to increase the number of qualified minorities and women in the pipeline. Included here are initiatives to influence individual selection

of education and training opportunities, so that choices will be in line with projected occupational openings.

- Renewed recruitment efforts to increase the number of minorities and women in a given corporation.
- Programs to enhance minorities' and women's understanding of the requirements for corporate success. The premise here is that this understanding will better prepare these individuals for assimilation.
- Mentoring programs for minorities and women. Where mentoring has been identified as a "success key," managers often establish special initiatives to assure that this avenue is available.
- Tracking of minorities and women viewed as having high potential for upward mobility. The intent is to assure that these employees remain visible and receive the necessary attention to ready them for promotions (Thomas, 1991).

These interventions have reaped positive results, but they have not been successful in moving organizations beyond affirmative action. I conclude, based on personal experiences in organizations and the experiences of friends and family, that most organizations, especially in the southeast, are in the AA phase of crunching numbers to meet governmental goals. I believe these organizations have not been able to move from the AA phase to understanding and valuing diversity, because they don't view diversity as a business issue.

3.1.3. Understanding and Valuing Race/Ethnicity and Gender Diversity

The concept of valuing race/ethnicity and gender diversity implies that employees in an organization have learned to appreciate others' differences and individualities without

criticism and judgment. Managers should consider diversity as an asset to an organization since diversity provides a richer environment, a variety of viewpoints, greater employee productivity, and performance that can lead to increased creativity, innovation, quality, efficiency, organizational effectiveness, and problem solving. Employees are more inclined to contribute to an organization if they see that the organization values their ideas, opinions, and beliefs.

Interventions used by organizations to assist in valuing and understanding diversity include the following:

- Establishment of caucuses that support the individual and foster understanding of the given groups' "culture." (e.g., caucuses for women, blacks, and Hispanics).
- Designation of "cultural days," where specific cultures are highlighted. On "Hispanic Awareness Day," for example, the cafeteria may feature Hispanic food, and the Hispanic caucus may present an exhibit and a formal program reflecting the Hispanic culture.
- Presentation of educational and training programs to enhance participants' awareness of "cultural differences" and recognition of their personal feelings regarding individual differences (Thomas, 1991).

An objective of understanding and valuing diversity is to formulate activities and education and training programs that emphasize awareness and respect for others' differences. The goal of these programs is to enhance and improve interpersonal relationships among individuals while minimizing racism, sexism, and discrimination.

2.2.3.1. Reasons for Valuing Diversity

Just as organizations are faced with a race/ethnicity and gender diverse workforce, they are also faced with this same type of diverse customer base. Knowledge of how this customer base thinks and feels is important when trying to satisfy and understand the customer's wants, needs, and expectations. At this point, valuing and utilizing the talents and knowledge of the race/ethnicity and gender diverse workforce is a competitive advantage. Furthermore, competing in the marketplace requires organizations to use and develop all of its talents and resources, not just those of the white males with similar educational levels, social backgrounds, cognitive styles, and personality types. Valuing diversity boils down to a matter of organizations surviving in both the national and international marketplace.

There are many reasons why an organization should value diversity. Some of these reasons are (Copeland, 1988):

1. *Competition for talent:* The labor pool in the US is shrinking. There are 6 million fewer teenagers today than in 1980 and more people leaving the labor force than entering it.
2. *Productivity:* The way people are treated and how they perceive opportunities effect loyalty and performance. Increased performance is the bottom line indicator for why an organization should value diversity.
3. *Marketplace demands:* The US minority purchasing power now equals the Gross National Product of Canada. Minority markets buy more than any country with which the US trades. A culturally sensitive and diverse workforce enables organizations to better understand and serve their diverse customers.
4. *Changing environment:* The US is losing its dominance over the world marketplace. Because of increased competition from other countries,

organizations should welcome new ideas, solutions, perspectives, and methods brought by diversity.

5. *A long-term economic issue:* Even in the face of short-term layoffs, minorities must be recruited, developed, and promoted. Rosabeth Moss Kanter reports that in comparing the 20-year performance of progressive companies with non-progressive companies, "companies with reputations of progressive human resource practices (includes innovation in affirmative action and equal employment opportunities (EEO)) were significantly higher in long-term profitability and financial growth than their counterparts." (Kanter, 1983).
6. *A mainstream agenda:* Diversity is good for results; hence, valuing and managing differences is not just EEO driven, but supported by management.
7. *Good management:* A good manager gets things done through other people, so an individual's career advancement depends on effectively working with other people, including those who are different.
8. *Employee comfort:* When all of us working in organizations recognize and value the contributions of diverse employees, we should become better able to talk about and deal with differences. We should be more comfortable and productive working with bosses, subordinates, and peers who are different from us.
9. *Benefits to the individual:* Many people who have experienced diversity training say that one by-product of training that has meant the most to them has been the broadening of their personal horizons and the expansion of their enjoyment of different people. They have felt less insulated, less intimidated, even less angry in their lives.

In conclusion, it is obvious that race/ethnicity and gender diversity will bring a competitive edge to those organizations who can understand, value, and manage it well.

2.1.3.2. Demographics

The changing demographics in the US play an important role in why organizations should value race/ethnicity and gender diversity. By the next decade, ethnic and racial minorities in the US will grow seven times faster than the white male population. The Hudson Institute, in its *Workforce 2000: Work and Workers for the 21st Century*, predicts that just 15 percent of the new entrants to the labor force by the year 2000 will be US born white males (Geber, 1990). The Hudson report also states that 61 percent of the new workers will be women and 29 percent will be minorities. Further studies have projected that white Americans will be the minority in the US by the year 2020 surpassed by American Indian, Asian, African, and Hispanic descendants. Rapidly changing US demographics are forcing more and more Americans to interact with people different from themselves-people whom they do not understand and who have unique values and ways of doing things (Copeland, 1988). This means recognizing that race/ethnicity and gender diversity is already a fact of life, and that learning to understand "culturally different" workers and creating an environment in which they will flourish is inevitable (Nelton, 1988). Therefore, industries that strive to remain white and male dominated will find their pool of competent workers falling short of their demand (Foster, Jackson, Cross, Jackson, and Hardiman, 1988).

Every culture has something to offer. Therefore, organizations need to create an environment that permits race/ethnicity and gender diversity to flourish. Table 2.1. displays the current and projected labor force shares by age, gender, and race.

There is also a vital statistic that verifies that the number of ethnic minorities and women in the workforce has increased even though they aren't being promoted to management ranks proportionately. Some of these statistics are:

- In the 1950s, 20% of college undergraduates were women; today, that percentage is 54%.
- In 1960, female lawyers numbered 7,500; currently, (1991) there are 180,000 female lawyers.
- During the same period (1960-1991), the number of female engineers increased from 7,404 to 174,000.
- In 1960, 28% of women who had children younger than 18 were in the work force; it's now 68%.
- The number of women, blacks and Hispanics in management has quadrupled since 1970, and the number of Asians has increased 8 times.
- Only 2% of top executives in Fortune 500 companies are women (Soloman, 1990).

Table 2.1. Current and Projected Labor Shares by Age, Gender, Race, and Hispanic Origin: 1986-2000.
(Leonard, 1988)

	1986	2000
16-24 years old	19.8%	16.3%
Female	44.5	47.3
White	86.4	84.1
Black	10.8	11.8
Asian and Other: (a)	2.8	4.1
Hispanic Origin: (b)	6.9	10.2
(a) Includes American Indians, Pacific Islanders, and Alaskan Natives		
(b) Hispanics also included in both white and black population groups		

Examples of some statistics showing the lack of increase of women and ethnic minorities in top management positions and salaries are:

- In 1986, a study showed that of 400 *Fortune* 1,000 organizations, less than 9% of all managers were minorities.
- Blacks earn 10-26% less than Caucasians with similar educational backgrounds, and black professionals and managers are twice as likely to be jobless as Caucasians (3.9% versus 1.8%).
- Working women earn \$.66 to every dollar a male peer makes.
- As women are promoted, the wage gap widens, so when she reaches the level of vice president, the average female earns 42% less than a male (Solomon, 1990).

If an organization's goal is to attract and retain the best and brightest, it must inspire and encourage talented people and show a desire to promote and pay individuals based on their skill and accomplishments.

2.1.4. Managing Race/Ethnicity and Gender Diversity

The goal of race/ethnicity and gender diversity management is to treat people as individuals, recognizing that each employee has different needs and will need different kinds of help to succeed (Gerber, 1990). To achieve this goal effectively and successfully, organizations have to make whatever changes necessary in their structures, cultures, systems, and management practices in order to give all employees, regardless of race and gender, equal access and opportunities in reaching their full potential.

To study the problems that race/ethnicity and gender diverse employees face within the organization, a task force should be commissioned by management. The task force's

objective is to study the issues and make recommendations to management. Belfry and Schmidt (1988-89) state:

The task force should include an appropriately diverse selection of employees and a representative from employee relations and training and development. It is up to the task force to assess the current and future demographics of the organization. The task force should also develop a statement of corporate philosophy and what the goals should be in managing the race/ethnicity and gender diverse workforce.

The best way for the task force to gain access to what employees really think and feel is through the use of a confidential survey. Once the results from the survey are rendered, they should be published so employees know their responses will be considered. After the survey has been studied, then the task force can outline priorities, define problem areas, generate and evaluate solutions, and develop a written action plan to be presented to management. The action plan should include (Belfry and Schmidt, 1988-89):

- Action steps--what will be done
- Accountabilities--who will be responsible for what
- Target dates--when steps will be implemented or completed
- Follow-up and support

Solutions in the plan should be based on what the organization wants to do to manage its race/ethnicity and gender diversity based on the task force's findings.

Before beginning the action plan, an audit of the organization's culture; human resource systems such as recruitment, performance appraisal, potential assessment and promotion; and compensation should be undertaken (Cox and Blake, 1991). Cox and Blake further state the primary objectives of this audit are to uncover sources of potential bias unfavorable to members of certain cultural groups and to identify ways that corporate culture may inadvertently put some members at a disadvantage.

Organizations have to understand and value diversity before employees can work effectively together in teams in a TQM environment. Also, team members have to understand and value diversity before they can accept and respect different point-of-views, opinions, and perspectives when solving problems, making decisions, and improving processes. These different point-of-views, opinions, and perspectives could be the difference between an average or excellent solution, decision, or improvement idea.

2.1.4.1. The Management of Race/Ethnicity as a Competitive Advantage

Cox and Blake (1991) state that the management of race/ethnicity and gender diversity help organizations gain a competitive advantage: cost, resource acquisition, marketing, creativity, problem-solving, and organizational flexibility (See Table 2.2.). Cox and Blakely further explain that the marketing, creativity, problem-solving, and system flexibility argument are derived from what they call the "value-in-diversity hypothesis"--that race/ethnicity and gender diversity brings net added value to organizational processes.

Management of minorities and women in organizations has not been as successful or as effective as management of white men. In most organizations, the turnover and absenteeism are often greater among ethnic minorities and women than white males. High absenteeism and turnover cost organizations millions of dollars each year. It's very costly to rehire and retrain workers on a regular basis. For example, one study reported that the overall turnover rate for blacks in the US workforce is forty percent higher than whites (Cox and Blake, 1991). This is due to a lower level of job satisfaction among ethnic minorities, which is caused by frustration over career development and growth coupled with cultural conflict (Cox and Nkomo, 1991). Surveys of male and female managers in

**Table 2.2. The Competitive Advantage Provided by the Management of Race/Ethnicity and Gender Diversity
(Cox and Blake, 1991)**

1. Cost Argument	As organizations become more diverse, the cost of a poor job in integrating workers will increase. Those who handle integration well will create cost advantages over those who don't.
2. Resource-Acquisition Argument	Organizations develop reputations on favorability as prospective employers for women and ethnic minorities. Those with the best reputations for managing diversity will win the competition for the best personnel. As the labor pool shrinks and changes composition, this edge will become increasingly important.
3. Marketing Argument	For multi-national organizations, the insight and cultural sensitivity that members with roots in other countries bring to the marketing effort should improve these efforts in important ways. The same rationale applies to marketing to sub populations within domestic operations.
4. Creativity Argument	Diversity of perspectives and less emphasis on conformity to norms of the past (which characterize the modern approach to management of diversity) should improve the level of creativity.
5. Problem Solving Argument	Heterogeneity in decision and problem solving groups potentially produces better decisions through a wider range of perspectives and more thorough critical analyses of issues.
6. System Flexibility	An implication of the multicultural model for managing diversity is that the system will become less determinant, less standardized, and therefore more fluid. The increased fluidity should create greater flexibility to react to environmental changes (i.e., reactions should be faster and or cost less).

large American organizations show that even though women expressed a much higher probability of leaving their current employer than men and had higher actual turnover rates,

their primary reasons for quitting were lack of career growth opportunity or dissatisfaction with rates of progress, not just during child bearing and child rearing years (Trost, 1990).

Organizations who neglect to make the necessary changes to more successfully use and maintain employees from different backgrounds can expect to suffer a significant competitive disadvantage compared to those organizations who do not have a high turnover of talented ethnic and women employees. Organizations who support flex-time have a lower rate of absenteeism compared to those organizations who don't. This is because the flexibility in the work schedule allows working mothers to take care of the needs of their children when necessary.

A study at UCLA researched the productivity of culturally heterogeneous and homogeneous work teams. Results of this study showed that some of the heterogeneous work teams were more productive and some were not. Productivity of the heterogeneous work team depended on how well the team managed its race/ethnicity and gender diverse employees. In work teams where all members had an equal opportunity to contribute, communicate, participate in group cohesiveness, and solve interpersonal conflict, then the heterogeneous work team was as effective or more effective than a homogeneous work team (Adler, 1986).

Moreover, work team heterogeneity increases and promotes creativity. Kanter (1983) states in her study of innovation in organizations that the most innovative companies consciously established heterogeneous teams to "create a marketplace of ideas, recognizing that a multiplicity of points of view need to be brought to bear on a problem." Kanter further states companies high on innovation had done a better job than most on eliminating racism, sexism, and classism and tended to employ more women and ethnic minorities than less innovative organizations.

In the area of resource acquisition, attracting and retaining excellent employees from divergent demographic groups is important for organizations to maintain their

competitiveness. As women and ethnic minorities increase proportionally the labor pool, organizations must compete to hire and retain workers from these groups (Cox and Blake, 1991). Organizations that were cited as the best companies for minorities and women to work was due to their organizational change efforts to manage race/ethnicity and gender diversity. These organizations have a better chance for recruiting and retaining talented minorities and women employees.

Markets are becoming as diverse as organizations, due to race/ethnicity and gender diverse people being customers and consumers. Organizations that utilize the full potential of their race/ethnicity and gender diverse workforce produce products and provide services that their culturally diverse customers and consumers want. Also, having a diverse workforce can improve public relations among customers and consumers. Many race/ethnicity and gender diverse customers and consumers prefer to buy from organizations that value a diverse workforce.

Race/ethnicity and gender diverse employees have a broader and more extensive base of experience from which to approach and solve problems. This richness in experience can lead to improved problem solving and decision making. However, the need for heterogeneity to promote problem solving and innovation must be balanced with the need for organizational coherence and unity of action (Cox and Blake, 1991). Nemeth (1986) cites the level of critical analysis of decision issues and alternatives is higher in groups exposed to minority views than those which aren't. Nemeth further states a greater number of alternatives are considered and there is a more thorough examination of assumptions and implications of alternative scenarios.

There are several reasons why managing race/ethnicity and gender diversity increases system flexibility. First, there is evidence that women and ethnic minorities tend to have especially flexible cognitive structures (Cox and Blake, 1991). Women tend to have a greater tolerance for ambiguity and flexibility than men, which is linked to cognitive

complexity (Rotter and O'Connell). Moreover, bilinguals have a higher level of divergent thinking and cognitive flexibility (Lambert, 1977). Last, Cox and Blake (1991) state the management of race/ethnicity and gender diverse employees may enhance organizational flexibility through the broadening of policies and procedures that cause operating methods to become less standardized and the organization becomes more fluid, adaptable, receptive, and open to new ideas.

I believe organizations practice TQM as a means of gaining a competitive advantage. Therefore, organizations that practice both TQM and diversity management will continuously improve and remain competitive in their marketplace.

2.1.4.2. Preparing Management to Manage Race/Ethnicity and Gender Diverse Employees

A major key to successfully managing race/ethnicity and gender diversity is commitment by top management to this goal. Management training needs to address three important issues (Belfry and Schmidt, 1988-89):

1. The need for managers to be concerned about diversity, namely demographics, organizational benefits, and reflections on their own managing effectiveness;
2. The problems that arise when race/ethnicity and gender diversity are not managed, namely EEO implications, high turnover, reduced productivity, poor attitude, workplace stress, and poor communications; and
3. Most important, what it is that managers need to know to manage diversity.

Management also has to be sensitized to the differences of others within their domain before they can deal with changing the culture within the organization. This can be accomplished by giving managers awareness and sensitivity training focusing on changing the managers' behaviors and attitudes about others. The training allows managers to confront their fallacies and face up to their prejudices and stereotypes, so they can better

understand them and those of the people they work with (Haight, 1990). Once managers are enlightened about their biases and assumptions about others, they can then understand how these prejudices can harm others.

Once managers are committed and understand their prejudices, they have to set up awareness and sensitivity training throughout the organization. This is also one of the first steps to changing the culture of an organization. The following are measures an organization can take to manage gender and race/ethnicity diversity (Nelton, 1988):

- Aim for an environment where no one has an advantage or a disadvantage because of race, sex, ethnic origin or creed.
- Identify elements in the corporate culture that prevent retention of good minority and female employees.
- Couple awareness or sensitivity training with action.
- Assume some of the burden of adjustment. An organization should not expect minorities and women to do all of the adjusting to the culture, which can sap them of their energy.
- Help minorities and women fit in and advance. Make sure they understand the unwritten rules of the organization. Look for developmental opportunities for them.

The following are other tips an organization can follow to help management manage gender and race/ethnicity diversity (Copeland, 1988).

1. *Recruitment:* Increase the quality of women and minorities hired through improved college relations programs and diverse hiring from experienced markets.

2. *Career development:* Expose women and minority employees with high potential to the same key developmental jobs that have traditionally led to senior management positions for their white male counterparts.
3. *Upward mobility:* Break the "glass ceiling" and increase the numbers of women and minorities in the higher salary groups through mentoring, executive appointment, and other programs.
4. *Diverse input and feedback:* Move from asking managers what they think Minority employees need to asking the minority employees themselves what they need.
5. *Self-help:* Encourage and enable women and minority networks and support groups.
6. *Succession planning:* Identify minorities and women to move in top positions within a designated time frame and begin developing them so they are prepared when the time comes.
7. *Accountability:* Hold managers accountable for the development of their diverse workforces. Directly tie in monetary compensation, rewards, and performance appraisal to effective management of race/ethnicity and gender diverse employees.
8. *Systems accommodation:* Respect and support the diversity of cultures through the recognition of different cultural and religious celebrations.
9. *Outreach:* Develop a reputation as a multicultural leader through supporting women's and minority organizations and programs. This visibility can help attract minorities and women.

Another step in the management of race/ethnicity and gender diverse employees is to check the demographics of the labor pool and customers served to make sure they are

similar in demographics (Gerber, 1990). It makes good business sense to match the demographics of the organization to those of the customer base as a means of assuring that products designed and services rendered are in congruence with the diverse customers' wants.

Managers should be given leadership training to have their leadership styles assessed, so they know how they effectively lead others. They should also be given personality and cognitive style tests, so they can understand how they process information and modify, subsequently, their behaviors in order to work better with their employees. Another reason for giving managers personality and cognitive style workshops is to enhance their understanding of how their behaviors and attitudes affect how they handle situations and deal with employees. These workshops help managers to better understand and handle employees whose personalities and cognitive styles are different from theirs.

Some skills managers should be expected to acquire from managerial, supervisory, leadership, sensitivity and awareness, and TQM training are:

- Explicit understanding of the assumptions, norms, and social techniques that form the basis of the manager's own culture.
- Understanding of the manager's own biases and stereotypical assumptions about others, and how these affect decision making.
- Problem solving and listening skills geared to those from other cultures.
- Awareness of the organization's unwritten rules of success and the skill to communicate them to all employees.
- Counseling skills for communicating performance and career development information to employees.
- Team-building skills to help manage conflicts, develop cohesion, and enhance communication between employees of different cultures.

- Work-climate transforming skills with which to make the ambiance conducive to race/ethnicity and gender diversity.
- Patience because there are no quick fixes or easy answers to managing race/ethnicity and gender diversity (Belfry and Schmidt, 1988-89).

When hiring new race/ethnicity and gender diverse employees, organizations should consider giving them personality and cognitive style tests in order to place the potential new entrants in jobs which are better suited for their type and style. These employees will more likely remain with the organization if placed in positions suitable to their personalities. One reason organizations may be faced with unhappy or difficult minorities and women employees may be the result of the misplacement of these employees in work settings not conducive to their personality type or cognitive style. Organizations may consider giving personality and cognitive style testing to all new employees to ensure they are placed in positions where they are satisfied. Employees tend to be more productive, creative, and innovative when placed in jobs where they are content.

Managers should also be given workshops on the importance of workforce literacy and the need for race/ethnicity and gender diverse employees to improve and increase their educational skills, so they can better understand how to perform their jobs better and work to their full potential in order to help contribute to improving organizational performance. Continuously educating and training all employees will better equip the workforce in facing new technological changes within the work environment. Workforce skills and educational improvement programs should not be limited to hourly workers but should also include managers, salaried, and white collar professionals. As organizations become more competitive and technology continues to change rapidly, everyone in the workforce needs to improve individual skills and knowledge. In order to do this, organizations should establish task forces to set up programs that will increase workforce educational skills.

Here are some issues that must be addressed when establishing workforce educational programs (Gordon, Ponticell, and Morgan, 1991).

1. Select appropriate training/educational programs for each targeted group.
2. Assess what specific skills are needed.
3. Determine what grade level and skills are needed.
4. Determine the appropriateness and efficiency of each program, beginning with the most remedial instructional services and ranging upward to self-paced or computer-based training.
5. When appropriate, prepare a task analysis for selected jobs to complete the above planning.
6. Determine an evaluation system for each instructional program and a record keeping system.
7. Prepare a budget detailing typical alternatives at different company locations.

Gordon, Ponticell, and Morgan (1991) also name adult education programs that organizations can implement to close the literacy gap. These programs are:

1. Federal Programs
2. Volunteer/Nonprofit Programs
3. Computer-Based Training
4. Interactive Videodisc
5. Textbook Series/Periodicals/Tests
6. Corporate In-House Programs

It's obvious that the management of race/ethnicity and gender diversity management is a powerful tool for helping organizations improve workforce relations, the overall performance of the organization, and the individuals within it. The management of

race/ethnicity and gender diversity will empower all employees to be risk takers and seek the type of shared responsibility for actions necessary for the organization to become competitive within the marketplace. The corporate mission, vision, goals, and guiding principles should reflect the organization's commitment to the management of race/ethnicity and gender diverse employees as part of organizational culture.

2.2. What is Organizational Culture

Culture is defined as what an organization stands for and identity is defined as what the organization is (Kurstedt 1991). Culture is shared values among the members of an organization; it is their values, beliefs, traditions, and norms. Cultures that have established their identities have done so through shaping values, making heroes, spelling out rites and rituals, and acknowledging the cultural network (Deal and Kennedy, 1982). In establishing a culture, the mission, vision, objectives, and goals of an organization are determined.

In viewing Edgar Schein's definition of culture, Schein (1985) states that one has to understand that organizations are open systems in constant interaction with their environment and consist of subgroups, occupational units, hierarchical layers, and geographically dispersed segments. Therefore, culture is a component of autonomous social units. Schein (1985, p. 9) defines culture:

A learned product of group experience to be found only where there is a definable group with a significant history. It is a pattern of basic assumptions--invented, discovered, or developed by a given group as it learns to cope with its problems of external adaptation and internal integration--that has worked well enough to be considered valid and therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems.

Groups determine culture and without groups there will be no organizational culture. Therefore, the theory of culture is grounded more in theories of group dynamics and group development than in anthropological theories of how cultures emerge. Schein (1985, p. 8) further states:

In looking at evolving social units within a larger host culture, we also can take advantage of learning theories and develop a dynamic concept of organizational culture. Culture is learned, evolves with new experiences, and can be changed if one understands the dynamics of the learning process. If one is concerned about managing or changing culture, one must look to what we know about the learning and unlearning of complex beliefs and assumptions that underlie social behavior. The culture can be applied to any size social unit that has had the opportunity to learn and stabilize its view of itself and the environment around it-its basic assumptions.

Schein (1985) discloses that there are levels of culture that need to be understood for conceptual enlightenment and defines the levels as follows:

Level 1: Artifacts. The most visible level of the culture is its artifacts and creations-its constructed physical and social environment. At this level one can look at physical space, the technological output of the group, its written and spoken language, artistic productions, and the overt behavior of its members. Since the insiders of the culture are not necessarily aware of their own artifacts, one cannot always ask about them, but one can always observe them for oneself.

Level 2: Values. In a sense, all cultural learning ultimately reflects someone's original values, their sense of what "ought" to be as distinct from what is. When a group faces a new task, issue, or problem, the first solution proposed to deal with it can only have the status of a value because there is not a shared basis for determining what is factual and real. If the solution works and the group has a shared perception of that success, the value gradually starts

a process of cognitive transformation into a belief and, ultimately, an assumption.

Level 3: Basic Underlying Assumptions. When a solution to a problem works repeatedly, it comes to be taken for granted. What was once a hypothesis, supported by only a hunch or value, comes gradually to be treated as a reality. We come to believe that nature really works this way. Basic assumptions are congruent with what Argyris calls "theories-in-use," the implicit assumptions that actually guide behavior, that tell group members how to perceive, think about, and feel about things.

The basic function of culture for an organization is to solve groups' basic problems of survival in and the adaptation to the external environment and the integration of its internal processes to ensure the capacity to continue to survive and adapt (Merton, 1957). Schein (1985, p. 50) further states that "the process of culture formation is, in a sense, identical with the process of group formation in that the very essence of "groupness" or group identity-the shared patterns of thought, belief, feelings, and values that result from shared experience and common learning-is what we ultimately end up calling the "culture" of the group."

In most organizations, culture has evolved around the white male and his values and beliefs. To manage race/ethnicity and gender diversity, organizations must change their white male oriented culture. To fully understand the impact of culture and identity on managing race/ethnicity and gender diversity, you have to look at culture's roots within the organization, the type of culture within an organization, and diffusing the barriers to cultural change.

2.2.1. Culture's Roots within the Organization

Thomas (1990) defines corporate culture as a kind of tree. Its roots are assumptions about the world and its branches, leaves, and seeds are behaviors. The culture and the systems of an organization must be understood to understand whether they are working for or against the organization in terms of implementing a diverse culture. Ed Schein of MIT talks about culture being the basic assumptions that drive all the activity in the organization. Values and norms are an outgrowth of these assumptions. An example of an assumption is that an organization should be a family, act as a team, and treat each other fairly (Thomas, 1991). Most assumptions are deeper, they are not talked about but implied.

The founder of an organization has the task of defining personal values for the organization. The founder evaluates the environment and determines what assumptions are needed for organizational survival. These assumptions are the function of the environment of the founder's personal values. This leads to organizational assumptions that lead to organizational practices, and, if these practices work, they lead to organizational values (Thomas, 1991). Therefore, organizational values are an outgrowth of these assumptions; these assumptions are analogous to the roots of a tree (Thomas, 1991). The roots of the tree control the branches. The branches are part of what we call culture. An organization must first understand its present culture and understand the effects of introducing the concepts of managing diversity and total quality management.

However, one of the most challenging issues facing organizations today is how to initiate and implement lasting cultural change on a company-wide scale. The first step in building a new culture is diagnosing the organization's present culture and determining what type of culture it already has. This can be done through needs assessment audits or cultural audits. Linkow (1989) prescribes steps an organization must undertake in order to see if it is ready for managing race/ethnicity and gender diversity and total quality.

1. Describe the current culture.
2. Establish core total quality values and beliefs.
3. Correlate core values and beliefs with the current culture.
4. Determine the strength of the current culture.
5. Identify targets for cultural change.

Furthermore, if an organization wants to transform its culture, its vision and mission must reflect the new philosophies. Any organization that wants to transform itself must begin by articulating where it wants to go and what it wants to become. An organization must state where it expects to be at the end of the change process, what values it will adhere to in its renewed state, and what principles will be used to guide the organization during the transformation effort (Fanson and Gunderson, 1991).

The core of a culture is in the systems of an organization. Before an organization can change its systems it must ensure the changes are congruent with the roots or assumptions of the organization. It is dangerous to assume that changing the present culture to a diverse or TQM culture is congruent with the roots because the roots in most corporations were put in place when the workforce was relatively homogeneous (Thomas, 1991). So there is no need to assume that the systems will work for a diverse group of people especially if the diverse group of people are not assimilated into the dominant culture.

2.2.2. Type of Culture within an Organization

I believe the first step an organization has to take before it can implement the management of race/ethnicity and gender diverse employees in a TQM setting is to determine what type of culture the organization presently has. Poupart and Hobbs (1989)

state there are five types of organizational culture: father-founder, bureaucratic, participative, professional, and managerial-entrepreneurial. Brief descriptions of these culture types are:

Father-Founder Culture: In organizations with this type of culture, the criteria for success vary with "the boss." Having often created his or her own firm because of intolerance for controls imposed by former employers, usually bureaucracies, the founder builds an organization in which the main theme and preoccupations revolve around flexibility and adaptability. Given the preoccupation in this culture with flexibility and adaptability, informal communication is viewed as necessary and legitimate as long as it does not conflict with the boss's perceptions, decisions, and whims.

Bureaucratic Culture: This culture is geared toward cost efficiency and respect of procedures. The central themes are order, predictability, and independence from the whims of any individual, whether he or she is a civil servant, employee, client, or beneficiary. In this culture, information is highly centralized and tends to flow vertically along organizational lines. Also, conflict is resolved by rules and procedures used to ward off evil of arbitrariness and to defend acquired rights and territorial jurisdictions.

Participative Culture: This culture can be viewed as a vestige of the sixties and seventies focusing on small group dynamics. Although the pioneers of these ideas may have shifted to other approaches, this culture, at least as an ideology, is still present in many organizations. The mechanism for control is self control, rooted in a strong adherence to organizational goals and group values, compliance achieved through peer pressure.

Professional Culture: This culture defines productivity in terms of fostering and

developing expertise and concerns itself with the frontiers and borders of that expertise. The frontiers define the profession, and the borders protect the professional autonomy. The power of the professional is based on his or her expertise.

Managerial-Entrepreneurial Culture: In the past, this type of culture has been labeled as a participative culture, but those elements do not give the culture its distinctive character. First of all, participative culture is derived from the psychosocial model of human behavior, while the managerial-entrepreneurial culture derives primarily from a socio-cognitive model. This culture exhibits two paradoxical characteristics: it is managerially tight in the sense that its top managers are fanatic centralists around the few core values they hold dear, and entrepreneurially loose in the sense that it has pushed autonomy down to the shop floor or product development team.

In the context of this research, the managerial-entrepreneurial type is the best culture for fostering the management of race/ethnicity and gender diversity in a total quality management environment. It is important that those members of the organization who are in charge of the process of changing from the present culture to a culture that embraces managing race/ethnicity and gender diversity and total quality know how to diagnose culture in order to indicate important change goals.

Organizations can be classified into three stages of cultural development. The ease of implementing a racial and gender diverse culture depends on the stage of development an organization is presently in. The stages of cultural development are (Foster, Jackson, Cross, Jackson, and Hardiman, 1988):

1. *Monocultural:* This first level is characterized by either implicit or explicit exclusion of racial minorities, women, and other socially oppressed groups. In some cases this level may be characterized not by exclusion but by a desire

to maintain a system that is rigged to the advantage of the dominant or majority "white male" group.

2. *Nondiscriminatory*: The second level is characterized by a sincere desire to eliminate the majority group's unfair advantage. The organization does this without significantly changing its dominant culture. In most cases, the organization is fixated on making sure that there is the right numerical representation of people of different races and genders in the organization. In other cases, the organization goes beyond minimum representation goals for racial minorities and women and attempts to influence the climate of the organization so it is not a hostile place for the new members of the workforce.
3. *Multicultural*: This level describes the organization that is either in the process of becoming or has become diverse in the visionary sense of the term, that is:
 - reflects the contributions and interests of the diverse cultural and social discrimination in the organization's mission, operations, products, or services;
 - commits to eradicate all forms of social discrimination in the organization;
 - shares power and influence so that no one group is put at an exploitative advantage; and
 - follows through on its broader social responsibility to fight social discrimination and advocate social diversity.

I believe if organizations are going to gain a competitive advantage in the marketplace and implement TQM with ease, they will have to have a multicultural that values everyone's talents and differences in the organization. Both the managerial-entrepreneurial culture and multicultural can be achieved within an organization if members of the organization are devoted to accomplishing these goals.

However, before an organization can become multicultural, it has to go through the process of integrating minorities and women into its culture. Therefore, the organization has to revamp its systems throughout this process to include these diverse groups. Gordon (1964) and Cox (1991) state there are six dimensions that have to be analyzed before determining the degree of cultural integration of race/ethnicity and gender diverse employees into an organization (See Table 2.3.).

Acculturation is the process by which cultural differences between the dominant (majority) culture and any minority culture groups are resolved or handled. Cox (1991) claims there are several alternatives to acculturation:

1. Assimilation--A unilateral process by which minority culture members adopt the norms and values of the dominant group in the organization.
2. Pluralism--A process by which both minority and majority culture members adopt some norms of the group.
3. Cultural Separatism--A situation where there is little adaptation on either side.

Acculturation is concerned with the cultural (norms of behavior) aspect of integration of diverse groups as opposed to simply their physical presence in the same location (Cox, 1991).

Structural integration pertains to the presence of persons from diverse cultural groups in a single organization. In order to understand structural integration, you have to look beyond EEO and AA guidelines to the numbers and percentages of minorities and women in management. Even though an organization may exceed EEO and AA guidelines for the number of women and minorities in the overall organization, the number of women and minorities may be disproportionately lower in managerial and professional positions than the percentage of minorities and women in the organization.

Table 2.3. Conceptual Framework for Analysis of Organizational Capability for Effective Integration of Culturally Diverse Personnel (Adapted from Gordon, 1964)

Dimension	Definition
1. Acculturation	Modes by which two groups adapt to each other and resolve cultural differences
2. Structural Integration	Cultural profiles of organization members including hiring, job-placement, and job status profiles
3. Informal Integration	Inclusion of minority culture members in informal networks and activities outside of normal working hours
4. Cultural Bias	Prejudice and discrimination
5. Organizational Identification	Feelings of belonging, loyalty, and commitment to the organization
6. Inter-group Conflict	Friction, tension, and power struggles between cultural groups

Informal integration refers to making work-related contacts outside of the normal business hours during various social activities or settings. This dimension examines levels of inclusion of ethnic minorities and women in lunch and dinner meetings, golf, and other athletic outings and social clubs frequented by organization leaders (Cox, 1991).

The two components of *cultural bias* are prejudice and discrimination. Prejudice pertains to the negative dispositions toward an organization member based on his/her cultural group identity, and discrimination pertains to observable hostile behavior for the same reason. Discrimination can be personal or institutional (Cox, 1991). Institutionalized discrimination refers to the unintentional disadvantage minority and women members may have due to the organization's culture and managerial practices.

Organizational identification refers to the extent to which an individual personally identifies and associates himself or herself with the organization. In managing a minority and gender diverse workforce, management is interested in what level these groups identify with the organization.

Cox (1991) refers to *inter-group conflict* as the level of cultural group based tension and interpersonal conflict. As demographic heterogeneity increases among group members, communication and cohesiveness may decline as groups become dissimilar (Lincoln and Miller, 1960). During the process of integrating race/ethnicity and gender diverse members into the organizations, management should be deal with the intergroup conflict that may arise from white males feeling threatened.

2.2.3. Types of Organizations

Cox (1991) defines three types of organizations: the monolithic organization, the plural organization, and the multicultural organization. Table 2.4. exhibits a six-dimension conceptual framework that characterizes these three organizational types in terms of the stages of cultural integration.

In the *monolithic organization*, the amount of cultural integration is minimal. The organization is highly homogeneous with few women and ethnic minorities in managerial positions. This type of organization is highly segregated in terms of types of jobs. Women and minority men are in the lower level and lower skill jobs. Intergroup conflict based on cultural group identity is reduced due to the homogeneity of the workforce. Aside from the downside implications from the monolithic organization in terms of under-utilization of human resources and social equality, this organization is not a realistic one for employers in the 1990's (Cox, 1991) because of the demographics of the workforce.

Figure 2.4. Six Dimension Analysis of Cultural Integration Among Organizational Types (Cox, 1991)

Dimensions of Integration	Monolithic	Plural	Multicultural
Form of Acculturation	Assimilation	Assimilation	Pluralism
Degree of Structural Integration	Minimal	Partial	Full
Integration into Informal Org.	Virtually none	Limited	Full
Degree of Cultural Bias	Both prejudice and discrimination against minority culture groups is prevalent	Progress on both prejudice and discrimination but both continue to exist especially institutional discrimination	Both prejudice and discrimination are eliminated
Levels of Organizational Identification*	Large majority-minority gap	Medium to large majority-minority gap	no majority-minority gap
Degree of Intergroup Conflict	Low	High	Low

*Defined as difference between organizational identification levels between minorities and majorities.

The *plural organization* has a more heterogeneous workforce and takes measures to include race/ethnicity and gender diverse employees into the culture. These measures encompass hiring and promotion policies that sometimes give precedence to persons from minority culture groups, manager training on equal opportunity issues, and audits of compensation systems to ensure against discrimination of race/ethnicity and gender diverse employees.

However, the problem in plural organizations arises when looking at integration across functions, levels, and work groups. Most management and professional jobs are

held by white males and most lower level and lower skilled jobs by ethnic minorities and women. However, there is a greater percentage of ethnic minorities and women in managerial positions and participating in the informal network as a result of greater structural integration which creates greater identification with the organization.

The plural organization is typical of the large organizations in the 1990's. These organizations utilize the affirmative action approach to managing race/ethnicity and gender diversity (Cox, 1991). White males in this type organization feel disadvantaged due to an emphasis on AA and EEO guidelines and laws to correct past organizational and societal wrongs.

Sales and Mirvis (1984) state an organization which simply contains many different cultural groups is a plural organization, but it is considered multicultural only if the organization values race/ethnicity and gender diversity. Cox (1991) characterizes the multicultural organization as including:

1. Pluralism
2. Full structural integration
3. Full integration of the informal networks
4. An absence of prejudice and discrimination
5. No gap in organizational identification based on cultural identity group
6. Low levels of intergroup conflict

Very few organizations have reached this level of diversity management. However, I believe if organizations are going to improve organizational performance, effectiveness, and competitiveness, becoming a multicultural organization is definitely a means of achieving these objectives and goals.

Achieving a multicultural organization is a necessity if organizations are going to effectively practice TQM. Working in teams is a characteristic of a TQM environment.

Therefore, team members should feel comfortable in their team environments so they can work up to their full potential. Also, it is necessary for intergroup conflict to be minimal in a team environment so the team can be productive and effective.

2.2.4. Diffusing the Barriers of Gender and Racial Culture Change

The biggest obstacle to gender and racial cultural change is exposing and deflating negative assumptions about minorities and women, changing the ways workers relate to one another, and transforming relationships with minorities and women suppliers and customers (Dreyfuss, 1990). The following barriers have to be broken by managers if an organization is going to be successfully transformed into a diverse culture (Copeland, 1988):

1. *Stereotypes and assumptions*: Avoid letting stereotypes interfere with valid assessments and good judgment about individuals who belong to a certain group. Most minorities and women must prove they are capable of performing certain jobs while it is assumed that white men are competent unless proven otherwise.
2. *Exclusion from the white male club*: Invite outsiders into the "club" and provide employees who are different with what they need to succeed-access to information and meaningful relationships with people in power.
3. *Expectations of failure*: Avoid being over critical of minorities and women who are given a chance to succeed. This may lead others to give up on them too soon which predisposes them to the stereotypes or paradigms about minorities and women.

4. *Insensitivity to cultural differences:* Encourage constructive communication about differences among cultures. Learn to value and appreciate new and different approaches to performing a job as an opportunity for learning and development.
5. *Unwritten rules:* Teach the unwritten rules to those who need them. Change the rules when necessary to allow diversity to benefit the organization.

Changing the culture to accommodate racial and gender diversity is a difficult task. Organizations have to attack each barrier to culture change with a well thought through plan of action. A method must be developed to get people to accept others for what they bring to an organization, their race and their culture.

In the context of this research, this is very important if an organization is going to be successful in its practice of TQM. If an organization can change its culture to accommodate TQM, it should be able to eliminate the barriers to racism and sexism and enable all employees to work up to their full potential in order to help the organization continuously improve.

2.2.5. Organizational Leadership

In conclusion, it is evident that managing race/ethnicity and gender diversity and the practice of TQM are necessary if an organization is going to be competitive in the global marketplace. An organization has to have a strong leader and total management commitment and support if it's going to accomplish the necessary cultural change that supports a diverse workforce and TQM. Also, a champion for race/ethnicity gender diversity is needed. This should be a person who is committed to the cause, not afraid to take a personal stand for change, exhibiting the behaviors required for change, and assisting with the work of moving the organization forward (Cox and Black, 1991).

Leaders must understand, value, and practice management. Lewan (1990) states that leadership is a step beyond management and is a skill. Lewan states that the job of a leader in an organization is:

- As the visionary, the leader keeps everyone focused on, clarifies, and articulates the mission;
- A leader's job is to focus all the workers/participants on what is the important mission, ensure that workers are focused on the right things; and
- As an influence, a leader should behave in a manner that is respectful and valuing of those he/she wishes to serve (lead). All workers are of equal value as persons, even though they differ in talent and technical skill. They must be treated that way when giving direction to them, challenging them, or even when taking corrective actions with them.

Therefore, a strong leader who can begin the execution of a culture change must exemplify the following characteristics (Lewan, 1990):

- Sensitivity to learning about and understanding the needs of all people one serves-not bosses, not controls-but serves.
- Ability to create and articulate a corporate mission and vision that the workers can get excited about, participate in, and be a part of.
- Capability of behaving in a manner that shows respect to and value of all individual workers and their unique contributions to the whole.

Leadership is a step beyond management and is vital for an organization in diagnosing its present culture to see if its roots are ready to be transformed to a culture that supports managing race/ethnicity and gender diversity and TQM. Therefore, the capacity

of any organization to capture the importance and value of diversity and TQM depends on the internal congruence of a common vision, belief, mission, goal, culture, and leadership.

I believe that management commitment and strong leadership is the key to making changes in the organizational structure, culture, and management practices. Management and/or leadership in organizations practicing TQM aimed at continuous performance improvement must realize just like they make changes to the organization's structure, culture, and management practices to incorporate TQM, they will have to do the same to effectively manage race/ethnicity and gender diversity in the context of TQM. Therefore, when management is designing the implementation process for TQM or doing short and/or long-term planning for TQM they should also include planning for the incorporation of diversity management practices into the planning process for organizational performance improvement.

2.3 What Is Total Quality Management

Organizations practicing TQM have to fully comprehend what it is; its principles; its evolution, history, and founders; and interventions that will lead to the successful practice of it before understanding how managing race/ethnicity and gender diversity also contributes to the successful practice of TQM. In the context of this research, this section is geared toward helping organizations fully understand what the concept of total quality management really means. This is necessary before organizations can understand the necessity of utilizing the full potential of the entire workforce in order to successfully practice TQM.

Total Quality Management is a concept coined from the theories of several quality gurus: W. Edwards Deming, Joseph Juran, Kaoru Ishikawa, Philip B. Crosby, and Armand Feigenbaum. The philosophies, tools, and interventions of TQM, if embraced and practiced diligently and accurately throughout the organization, could enable organizations

to maintain or gain a competitive advantage in the global marketplace. Feigenbaum (1983, p.13) describes TQM as:

Total Quality Control's companywide impact that involves the managerial and technical implementation of customer-oriented quality activities as a prime responsibility of general management and of the main-line operations of marketing, engineering, production, industrial relations, finance, and service as well as of the quality-control function itself.

TQM can be conceived as encompassing the entire scope of the product and service life cycle from product conception through production and customer service. Perigord (1987) states that total quality means that all participants in an organization are involved regardless of their position in the hierarchy; therefore, all participants must share the same vision and goal consistent with ongoing improvement and each must feel responsible for the entire product cycle, from initial design until the end of the product's service life.

Sink (1990, p. 14) defines TQM as the management (planning, organizing, leading, controlling, innovating, etc.) and measurement of performance at five quality checkpoints in the organization (See Figure 2.2.). Sink (1989) defines the dimensions of performance as seven inextricably interwoven criteria: effectiveness, efficiency, quality, productivity, quality of worklife, innovation, profitability (for a profit center) and budgetability (for a cost center). Sink (1989, pp. 8-9) describes each of the five quality checkpoints as:

Quality Checkpoint #1: Selection and management of upstream systems (i.e., suppliers, vendors). This includes the development and maintenance of standards, specifications, requirements--open communication channels with the organizational systems from which the organization receives inputs.

Quality Checkpoint #2: Incoming quality assurance--the assurance that the organization is getting what it wanted, needed, expected, requested on time and within specifications.

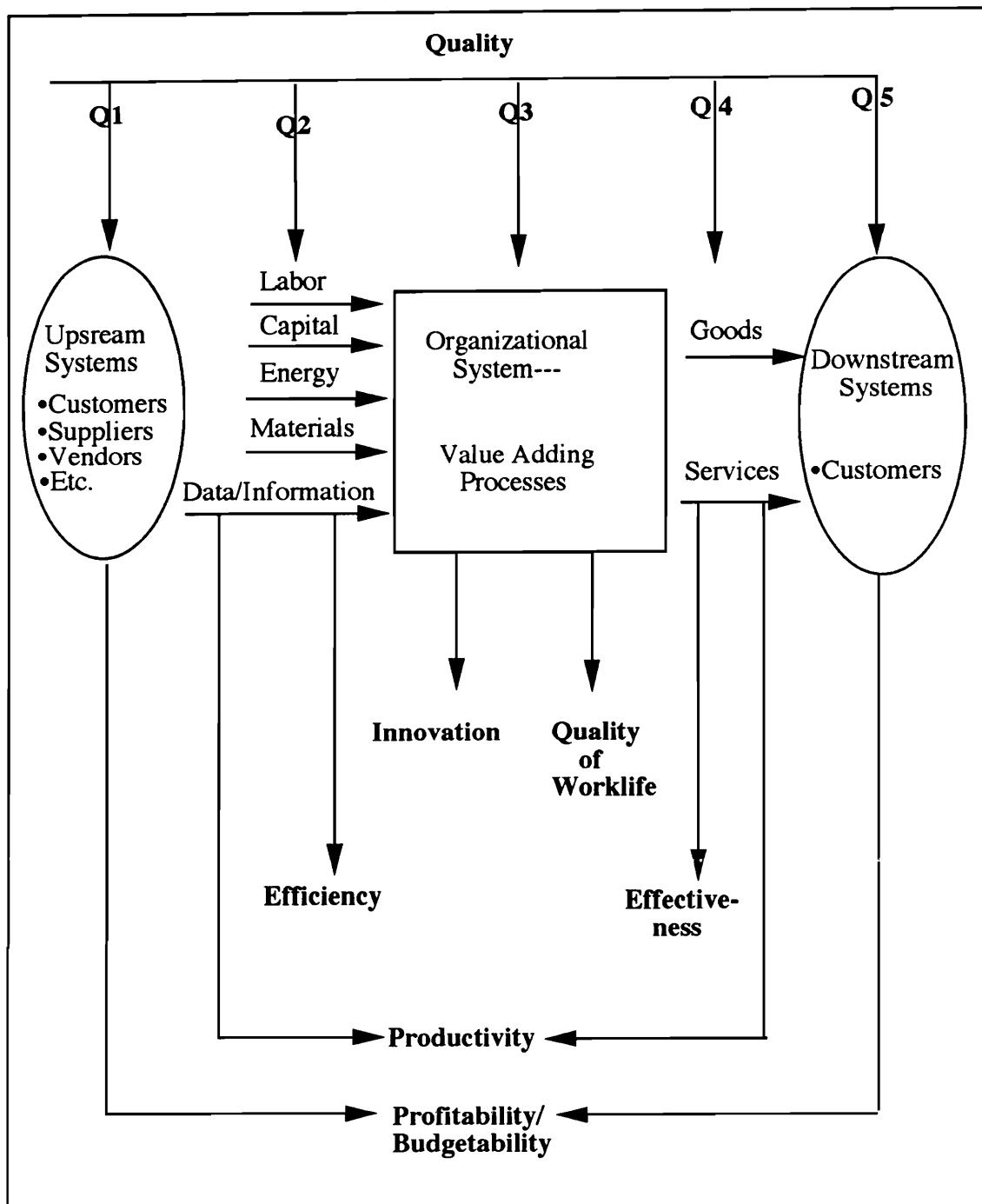


Figure 2.2. Organizational Performance (Sink, 1990)

Quality Checkpoint #3: In-process quality management and assurance--assuring that key transformation processes (value-adding processes) are effective, efficient, and "building" quality into the goods and/or services.

Quality Checkpoint #4: Outgoing quality assurance--that the organizational system is producing the desired goods and/or services on-time and within specifications.

Quality Checkpoint #5: The proactive assurance that the organizational system is meeting or exceeding the customers' needs, specifications, requirements, wants, desires, and expectations.

Quality Checkpoint #6: encompasses the overall quality management process (Koelling, Tenjeras, and Riel, 1988; Sink and Tuttle, 1989).

The quality management process includes the five quality checkpoints and the organizing of all of quality efforts within an organization (See Figure 2.3.). Quality checkpoint #6 can be interchanged with Juran's (1989) concept of big "Q" which represents the new and holistic concept of quality management.

An organization's initial step in developing a TQM plan is the development of a Grand Strategy System to help management make decisions and take actions which focus on the following management processes (Monetta and Sink, 1991, p. 43; Kurstedt, 1990):

- (A) Administering the process, doing the job;
- (B) Building the business, improving organizational performance;
- (C) Catering to crises, fighting fires.

In most organizations managers spend most of their time administering the process.

Organizations of the future must obtain a balance between these three management processes through the use of the Grand Strategy System which will enable organizations to

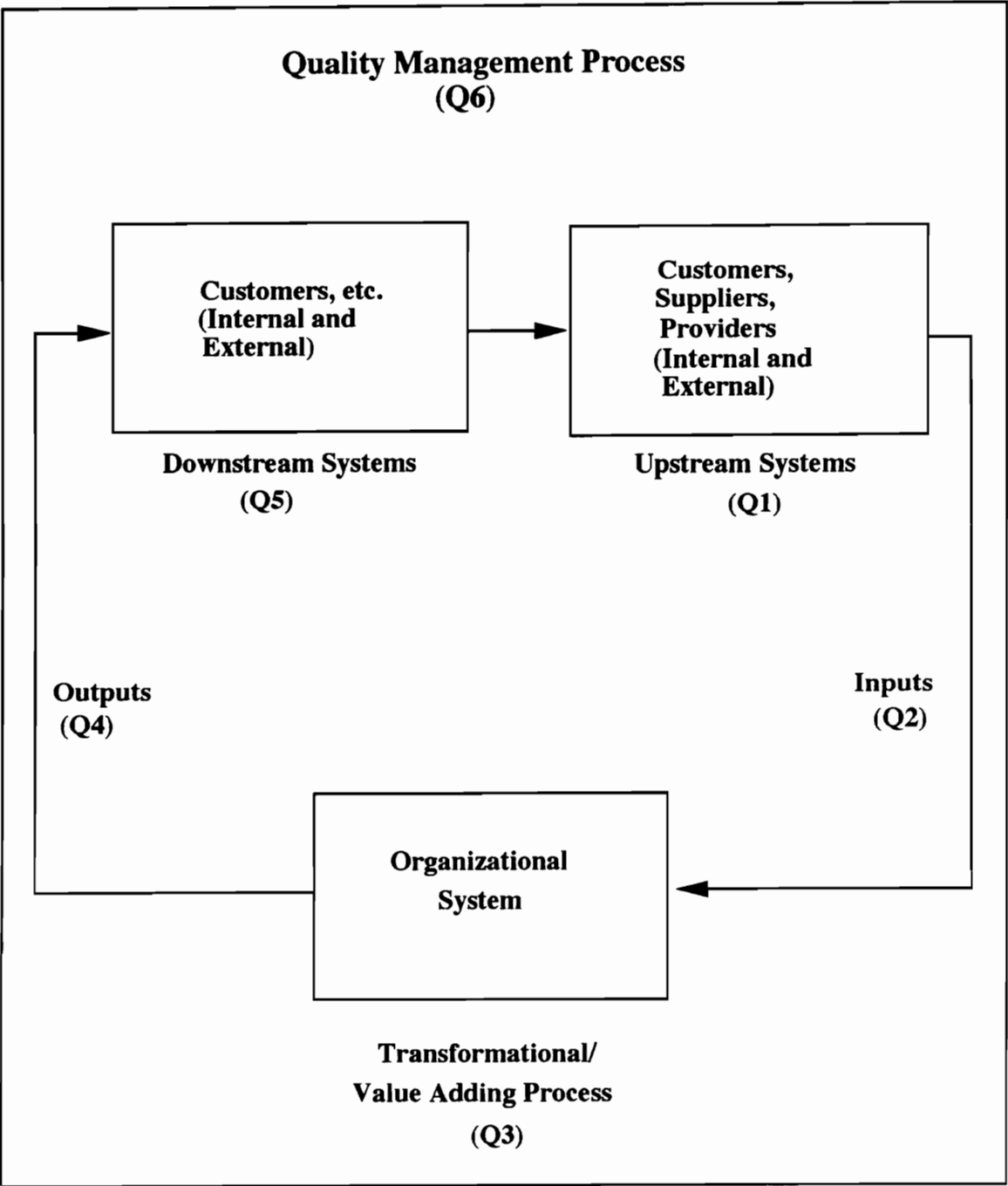


Figure 2.3. Six Quality Checkpoint Framework
(Excerpt from Koelling, Tenjeras, & Riel, 1988)

accomplish this goal. The premise of the Grand Strategy System, the key to continuous organizational performance will be discussed in this literature review.

Before an organization can implement and practice TQM successfully, I believe several interventions within the organization have to be initiated. These interventions are: commitment and leadership by top management, employee involvement and participation, organizational culture change toward quality awareness and improvement, employee and management education and training about TQM and its tools, inclusion of customers and suppliers in the quality improvement efforts, establishing an infrastructure, and strategic planning for quality. These interventions will be discussed later.

This literature review will address many aspects of TQM such as plans for doing TQM, the Grand Strategy System, and Strategic Performance Improvement Methodology. A comparison is made between TQM and Japan's Company-Wide Quality Control and Kaizen. Some aspects of TQM that are addressed in this literature review are the following: definition and evolution of quality in the US, different contributions to the philosophy of TQM by quality gurus, and interventions which will lead to effective implementation and practice of TQM.

2.3.1 Grand Strategy—a Plan for doing TQM

Before an organization can implement or practice TQM, plans must be developed and generated to outline and map out the strategies to be used to successfully manage the TQM effort. The Grand Strategy System (GSS) is a plan that will guide and aid an organization in its TQM efforts. The GSS plan provides organizations with continuous improvement strategy development of all organizational systems. Monetta and Sink (1991, p. 45) state the GSS has three basic components: (1) documenting and ensuring widespread understanding of the past and the present; (2) fronts which are major strategic areas of activity; and (3) a strategic performance improvement plan.

2.3.1.1. Documenting and Understanding the Past and the Present

Monetta and Sink (1991, p. 46) state that documenting and understanding the past and present, while avoiding the impulse to promulgate the "quick fix," ensures continuity, helps avoid redundancy, and maximizes synergy among efforts across time. Both say these factors should be considered when documenting the past and present:

- critical incidents over the past five to ten years
- key personnel changes
- major decisions, strategy shifts
- changes in mission, vision, assumptions, guiding principles, goals
- major initiatives taken/attempted to improve performance
- lessons learned

The goal of this process is to develop a standardized corporate recollection that will maintain and assist organizational plans, purpose, and strategies.

2.3.1.2. Fronts

Monetta and Sink has determined that there are a number of fronts (or sub-systems) an organization must manage simultaneously in order to continuously improve and maintain organizational competitiveness (1991). These fronts are: planning; infrastructure; culture; measurement; technology; communication; education, training, and development; motivation, rewards, and recognition; and politics. Monetta and Sink (1991, p. 47) analogize organizational fronts to war fronts; therefore, in a war, if one front gets ahead of the other fronts, it runs the risk of getting cut off; if it lags too far behind, it jeopardizes the other fronts or perhaps the entire war. The descriptions of each front follows:

Planning. Planning is the lead front. The first step an organization should take when trying to improve and perform TQM is to map out a plan of how to achieve this goal. Planning addresses what an organization is doing and how it is doing it in a designated area. Monetta and Sink (1991, p. 47) identify questions that should be addressed in this front: Who is involved? What is the process? How are plans deployed vertically and horizontally? How are plans linked to action and evaluation?

Infrastructure. Webster's New World Dictionary defines infrastructure as the basic installations and facilities on which the continuance and growth of an organization or community depend. Many organizations have documented organizational charts and job descriptions. Most organizations have a well defined infrastructure for catering to crises but not for building the business and improving organizational performance. Therefore, improvement efforts need to be developed to help organizations develop and improve infrastructures for doing B, building the business and improving performance.

Culture. Schein (1985, p. 9) defines culture as a pattern of basic assumptions--invented, discovered, or developed by a given group as it learns to cope with its problems of external adaptation and internal integration--that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems. Schein further states that culture is a learned product of group experience. Kurstedt (1990) suggests that culture has two components, identity and values. Kurstedt defines identity as what one is; it is a function of and reflects actual behaviors in the organization. He further defines values as one's deeply held beliefs in how one should behave; they are important influences that help guide and shape behaviors. Organizations can make positive culture changes resulting from interventions in other fronts which can lead to the development of a continuous improvement culture.

Measurement. Monetta and Sink (1991) state that an organization's measurement system should enhance and assist problem solving and decision making aimed at continuous performance improvement. In the past, organizations have viewed measurement as a control issue, thus making this front the most difficult to improve. Organizations can eliminate this paradigm by designing and developing their own measurement systems for organizational improvement.

Technology. Organizations employ technology as "a way of getting things done" This includes the methods and means by which an organization uses technology to improve performance. It is the type of system an organization uses to produce products or provide services to customers, both internal and external.

Communication. Organizations use communication as a means of sharing information and knowledge with its employees. Communications about the organization's mission and vision, current performance levels, plans for the future, TQM initiatives, etc., must be comprehensive and integrated, vertically and horizontally throughout the organization, for TQM to succeed.

Education, Training, and Development. Education and training are critical components of organizations who want to continuously improve. Organizations have to educate their employees in understanding and interpreting the concept of TQM and how their jobs are all vital components of the continuous improvement process. Moreover, organizations must train and develop employees so they can perform their jobs at the best of their abilities while understanding the factors that may prohibit them from performing their jobs well. Organizations must train their employees on when and how to use the tools of TQM to enhance continuous performance improvement. Organizations should address the following questions when ensuring its education, training, and development programs are sufficient for continuous performance improvements (Monetta and Sink, 1991):

1. How much time does the average employee spend in education, training, and development each year?
2. What kind of education is provided?
3. Is there a strategic, comprehensive, integrated education plan for the organization?
4. Is the quality of education and training what it should be?
5. Are education and training interventions aimed only at job related subjects?

Organizations who are serious about organizational improvement should make sure that all employees are provided with education, training, and job development through protected budgets for this purpose.

Motivation, Rewards and Recognition. Moving from a control-dominant to a commitment-oriented organization requires many shifts. Organizations have to realize that motivation comes from within and financial rewards are not the answer to increasing motivation. The selection, placement, and retention of employees in organizations of the future will be based on non financial gratifications such as opportunity, leadership, involvement, information sharing, knowledge, and power (Monetta and Sink, 1991). Management will have to find ways to reward and recognize employees other than with monetary rewards for achievements that support the continuous improvement environment.

Politics--satisfaction of the stake holders. Both external and internal politics play a key role in organizational success and performance. Understanding how politics affects an organization's decisions and actions is crucial to its success. This front is the most difficult to manage because most managers are not well educated in how to play the game of politics. Consequently, managers will have to learn the strategies, tactics, and skills of the

political game within the internal and external environment in order to enhance continuous improvement.

In conclusion, these fronts represent major management sub-systems that must be managed in a strategic, integrated, and comprehensive fashion in order to achieve a successful continuous improvement effort (Monetta and Sink, 1991). Organizations can tackle the task of managing these fronts through cooperation and understanding these fronts and their effect on organizational performance.

2.3.1.3. Planning for the Future

The focus of the final component of GSS is defining, planning, communicating, and creating the ownership for the future through the use of the Strategic Performance Improvement Planning Methodology. Strategic Performance Improvement Planning Methodology is a strategic plan for an organization's TQM efforts. I also believe organizations have to incorporate race/ethnicity and gender diversity management in its strategic plan for TQM if they are going to continuously improve. Strategic Performance Improvement Planning can be described as a map or outline an organization must follow in order to accomplish its end goal of continuous performance improvement. Sink and Tuttle (1989) define the planning methodology as a participative and consultative approach which considers time availability, the need for acceptance, quality, and the willingness and ability of the participants. The outcome or goal of the plan is to improve organizational performance. The planning methodology is a seven step plan that is to be completed by the organization's top management team, off-site, in a two or three day session. The following is a list of the seven steps in the planning process:

- Step 1: Organizational System Analysis
- Step 2: Strategic Objectives
- Step 3: Tactical Objectives
- Step 4: Implementation Planning
- Step 5: Implementation Management
- Step 6: Performance Measurement
- Step 7: Implementation, Review, and Evaluation (Sink and Tuttle, 1989)

2.3.2 Organization-Wide Quality Control

In Japan, Company-Wide Quality Control (CWQC) is characterized by a philosophy, specification, and mechanism to deploy customer desires vertically and horizontally throughout the organization (Sullivan, 1986a). CWQC is also characterized by the build up of quality in seven stages (See Figure 2.4.). Sullivan (1986a, pp. 78-8) describes the seven stages of quality as:

- Stage 1: Inspection after production (product oriented);
- Stage 2: Quality control during production (process oriented);
- Stage 3: Quality assurance involving all departments (systems oriented);
- Stage 4: Education and training (humanistic aspect of quality);
- Stage 5: Product and process design optimization for more robust function (society oriented);
- Stage 6: The Taguchi loss function (cost oriented); and
- Stage 7: Quality function deployment to define the "voice of the customer" in operational terms (consumer oriented).

The philosophy of CWQC refers to the quality of management, human behavior, work being done, work environment, and the product and service, in this order (Sullivan,

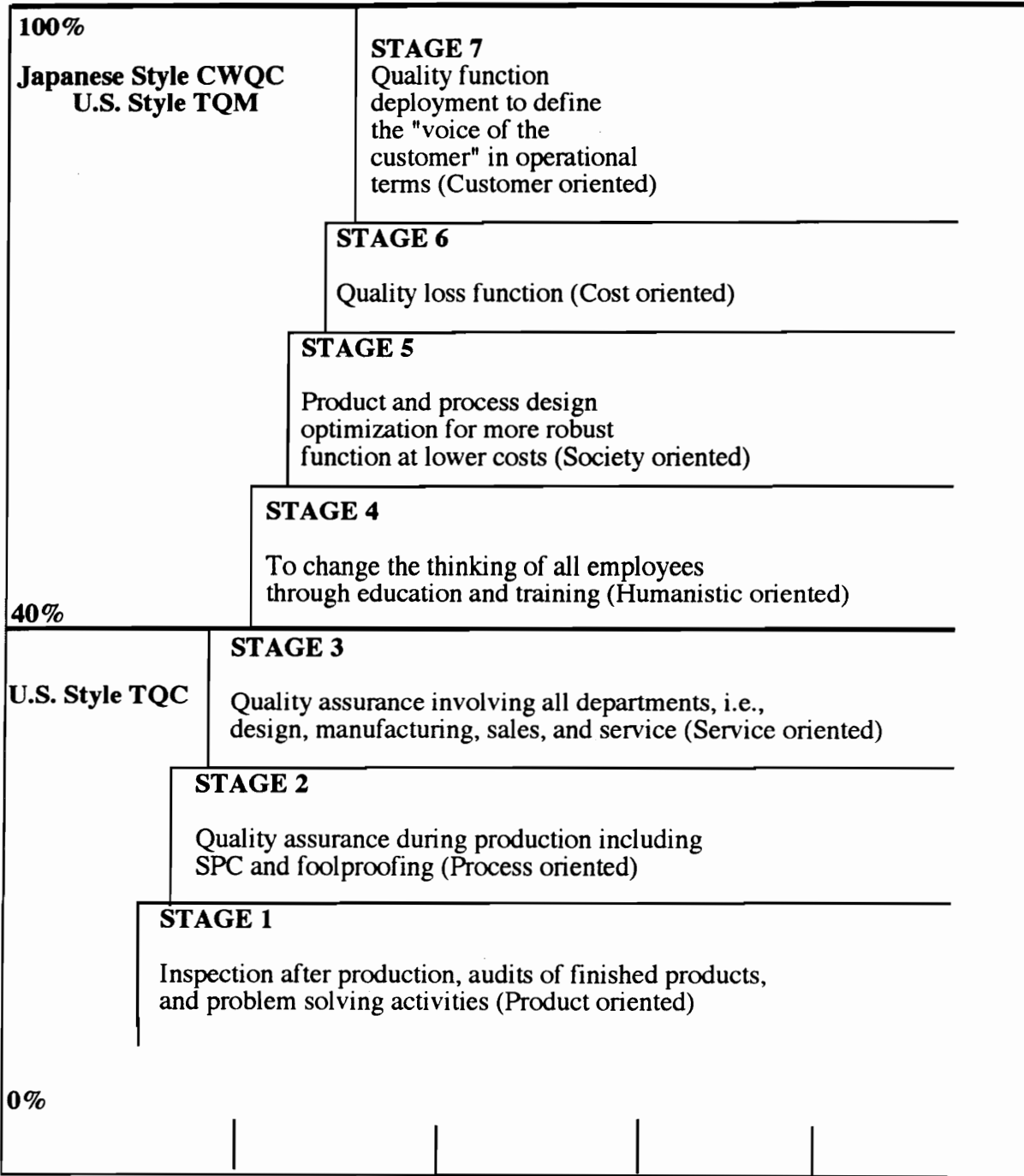


Figure 2.4. Quality Effort by Activity
(Sullivan, 1986)

1986a). Therefore, the philosophy of CWQC is comparable to the US's version of TQM.

The specifications of CWQC appears in Japan's Industrial Standard Z8101-1981, which defines quality control as: "a system of means to economically produce goods or services which satisfy customers' requirements." The US version of TQC is the same as the first three phases of CWQC.

2.3.2.1. Quality Function Deployment

Sullivan describes Quality Function Deployment (QFD) as the mechanism as well as the operational definition of CWQC. In the US, QFD is used as a tool of TQM to translate customer requirements into design specifications of a product or service. In QFD all operations and activities are driven by the voice of the customer. There are six terms associated with QFD (Sullivan, 1986b, pp. 39-40):

1. *Quality Function Deployment*--an overall concept that provides a means of translating customer requirements into the appropriate technical requirements for each stage of product development and production.
2. *The Voice of the Customer*--the customers' requirements expressed in their own terms.
3. *Counterpart Characteristics*--an expression of the voice of the customer in technical language that specifies customer-required quality; counterpart characteristics are critical final product control characteristics.
4. *Product Quality Deployment*--activities needed to translate the voice of the customer into counterpart characteristics.
5. *Deployment of the Quality Function*--activities needed to assure that customer-required quality is achieved; the assignment of specific quality responsibilities to specific requirements.

6. *Quality Tables*--a series of matrices used to translate the voice of the customer into final product control characteristics.

The QFD concept consist of four key documents (Sullivan, 1986b) which are: overall customer requirement planning matrix, final product characteristics deployment matrix, process plan and quality control charts, and operating instructions. Sullivan (1986b, p. 40) states the benefits of QFD are:

1. Product objectives based on customer requirements are not misinterpreted at subsequent stages.
2. Particular marketing strategies or "sales points" do not become lost or blurred during the translation process from marketing through planning and on to execution.
3. Important production control points are not overlooked--everything necessary to achieve the desired outcome is understood and in place.
4. Tremendous efficiency is achieved because misinterpretation--of program objective, marketing strategy, and critical control points--and need for change are minimized.

A new acronym CWQI (Company-Wide Quality Improvement) refers to a permanent process of improvement. Perigord (1987) states that CWQI is oriented toward the total market as well as the individuals and firms associated with an organization and its cooperation with other firms.

2.3.2.2. Kaizen

Kaizen is a vital key to Japan's competitive success. Imai (1986) defines Kaizen as ongoing improvement involving everyone--top management, managers, and workers.

Kaizen's focus is also on keeping the customer satisfied. Kaizen uses the process-oriented style management approach to achieving continuous improvement. Whereas, result oriented management approaches are used in most organizations in the US, Europe, and Canada. The process-oriented style management approach is people oriented instead of result oriented. This management style endorses and stimulates efforts or activities to improve the ways employees do their jobs. More and more Western organizations are turning toward the process-oriented approach in their efforts to continuously improve.

Imai (1986) states that CWQC provides a statistical approach for Kaizen and problem solving. In statistical problem solving, using the CWQC approach, one constantly returns to the source of the problem to collect data which is a process-oriented means of thinking. Therefore, management looks at the steps an employee has taken and works at jointly determining criteria for problem solving and improvement. Kaizen is a means of building quality into people by helping them become improvement conscious. Imai (1986) states the following

Both functional and cross-functional problems abound in the work environment, and people must be helped to identify these problems. Then they must be trained in the use of problem-solving tools so that they can deal with the problems they have identified. Once a problem has been solved, the results must be standardized to prevent reoccurrences. By going through the never-ending cycle of improvement, people can become Kaizen-minded and build discipline to achieve Kaizen in their work.

Educating and training employees about CWQC and Kaizen are crucial if organizations are to transform their present cultures into quality and improvement oriented cultures.

2.3.3. What is Quality

Crosby (1984) defines quality as conformance to requirements or giving the customer what he or she wants or desires. Ishikawa (1985) also defines quality as

conformance to consumers' requirements. Others define quality as "you know it when you see it" or "quality equals productivity." Feigenbaum (1983, p. 7) describes quality as:

The customer's actual experience with the product or service, measured against his or her requirements--stated or unstated, conscious or merely sensed, technically operational or entirely subjective--and always representing a moving target in a competitive market.

Feigenbaum (1983) further states that a product must perform its intended function repeatedly over its stipulated life cycle under intended environments and conditions in use which constitutes reliability. The product must have proper maintainability and serviceability over its life cycle and meet customer requirements of attractability. In essence, a product or service must give the customer total satisfaction. Table 2.5. defines Perigord's (1987) definition of quality.

Feigenbaum (1983) elicits "quality" means the orientation to customer satisfaction. Therefore, certain product and service conditions have to be met in order to satisfy the customer's feel for quality. Feigenbaum (1983, p. 9) states these conditions as follows:

1. The specification of dimensions and operating characteristics
2. The life and reliability objectives
3. The safety requirements
4. The relevant standards
5. The engineering, manufacturing, and quality costs
6. The production conditions under which the article is manufactured
7. The field installation, maintenance, and service objectives
8. The energy-utilization and material conservation factors
9. The environmental and other "side" effects considerations
10. The costs of customer operation, use, and product service

11. The actual end use
12. The selling price of the product or service

**Table 2.5. Attribute of Quality
(Perigord, 1987)**

Quality: The Ability of a Product or Service to Meet Users' Needs	
Users: Individuals, organizations, government agencies	
Needs: Expressed or potential	
Ability = the sum of its attributes:	
Known in advance of purchase	Products or service features Packaging, aesthetics Performance Market Response
Discovered after purchase or upon use but reflected in the brand name's image	Adherence to time frames Reliability Maintainability Availability Durability Safety during use Environmental safety Total cost of ownership

However, Garvin (1988) prepared one of the most complete studies of the definition of quality. Garvin (1988) defines five principal approaches to quality: transcendent, product-based, user-based, manufacturing-based, and value-based (See Table 2.6.). The approaches to quality communicate different views of quality from different disciplines and functions within organizations. In other words, engineers are

Table 2.6. Five Definitions of Quality
(Excerpts from Garvin, 1984, p. 35)

I. Transcendental Definition: "Quality is neither mind nor matter, but a third entity independent of the two ... even though Quality cannot be defined, you know what it is." (R.M. Pirsig, <i>Zen and the Art of Motorcycle Maintenance</i>, pp. 185, 213) "... a condition of excellence implying fine quality as distinct from poor quality ... Quality is achieving or reaching for the highest standard against being satisfied with the sloppy or fraudulent." (B.W. Tuchman, "The Decline of Quality," <i>New York Times Magazine</i>, November 2, 1980, p. 38)
II. Product-based Definition: "Differences in quality amount to differences in the quantity of some desired ingredient or attribute." (L. Abbott, <i>Quality and Competition</i>, pp. 126-127) "Quality refers to the amounts of the unpriced attributes contained in each unit of the priced attribute." (K.B. Leffler, "Ambiguous Changes in Product Quality," <i>American Economic Review</i>, December 1982, p. 956.)
III. User-based Definition: "Quality consists of the capacity to satisfy wants ..." (C.D. Edwards, "The Meaning of Quality," <i>Quality Progress</i>, October 1968, p. 37) "Quality is the degree to which a specific product satisfies the wants of a specific consumer." (H.L. Gilmore, "Product Conformance Cost," <i>Quality Progress</i>, June 1974, p. 16) "Quality is any aspect of a product, including the services included in the contract of sales, which influences the demand curve." (R. Dortman and P.O. Steiner, "Optimal Advertising and Optimal Quality," <i>American Economic Review</i>, December 1953, p. 831.) "In the final analysis of the market place, the quality of a product depends on how well it fits patterns of consumer preferences." (A.A. Kuehn and R.L. Day, "Strategy of Product Quality," <i>Harvard Business Review</i>, November-December 1962, p. 101.) "Quality consists of the extent to which a specimen (a product-brand-model-seller combination) possesses the service characteristics you desire." (E.S. Maynes, "The concept and Measurement of Product Quality," in <i>Household Production and Consumption</i>, p. 542.) "Quality is fitness for use." (J.M. Juran, ed., <i>Quality Control Handbook</i>, p. 2-2.)

Table 2.6. Five Definitions of Quality (Cont.)
(Excerpts from Garvin, 1984, p. 35)

IV. Manufacturing-based Definition: "Quality (means) conformance to requirements." (P.B. Crosby, <i>Quality is Free</i>, p. 15) "Quality is the degree to which a specific product conforms to a design or specification." (H.L. Gilmore, June 1974, p. 16)
V. Value-based Definition: "Quality is the degree of excellence at an acceptable price and the control of variability at an acceptable cost." (R.A. Broh, <i>Managing Quality for Higher Profits</i>, 1982, p. 3) "Quality means best for certain customer conditions. These conditions are (a) the actual use and (b) the selling price of the products." (A.V. Feigenbaum, <i>Total Quality Control</i>, p. 1)

interested in product performance; therefore, they prefer the product-based approach to quality. Whereas, marketing people are interested in quality improvements that increase cost are associated with user-based and product-based quality.

Garvin (1988, pp. 49-50) also describes dimensions or categories of quality. These eight dimensions of quality are as follows:

1. *Performance*--primary operating characteristics of a product; relates to the objective product characteristics and users' judgments.
2. *Features*--those secondary characteristics that supplement the product's basic functioning; relates to the objective product characteristics and users' judgments.

3. *Reliability*--the probability of a product's malfunctioning or failing over time, common measures are the mean time to first failure (MTFF) and the mean time between failures (MTBF); relates to how effective a product is manufactured.
4. *Conformance*--the degree to which product's design and operating characteristics meet standards; relates to how product is manufactured.
5. *Durability*--measure of product life, usability before deterioration; relates to how a product is manufactured.
6. *Serviceability*--the speed, courtesy, competence, and ease of repair; relates to users' objective and subjective judgment.
7. *Aesthetics*--how a product looks, feels, sounds, tastes, or smells; relates to users' subjective judgment.
8. *Perceived Quality*--consumers' perceptions and viewpoints; relates to users' subjective judgment.

Garvin (1988) does not suggest that organizations that elect to compete on quality need pursue all eight dimensions at once. Organizations may choose one or two dimensions of quality to focus on to establish their niche.

2.3.4. Evolution of Quality Efforts in the US

The concept of quality has been around for hundreds of years. However, quality is known today as a confirmed management function. Garvin (1988) chronologically describes quality efforts in four eras or stages: inspection, Statistical Quality Control, Quality Assurance, and Strategic Quality Management (See Table 2.7.).

**Table 2.7. Stage of the Quality Management
(Garvin, 1988)**

Identifying Characteristic s	<i>Inspection</i>	<i>Statistical Quality Control</i>	<i>Quality Assurance</i>	<i>Strategic Quality Management</i>
Primary concern	detection	control	coordination	strategic impact
View of quality	a problem to be solved	a problem to be solved	a problem to be solved, but one that is attacked proactively	a competitive opportunity
Emphasis	product uniformity	product uniformity with reduced inspection	the entire production chain, from design to market, and the contribution of all functional groups especially designers, to preventing quality failures programs and systems	the market and consumer needs
Methods	gauging and measurement	statistical tools and techniques	programs and systems	strategic planning, goal-setting, and mobilizing the organization
Role of quality professionals	inspection, sorting, counting, and grading	troubleshooting and the application of statistical methods	quality measurement, quality planning, and program design	goal-setting, education and training, consultative work with other departments, and program design

**Table 2.7. Stage of the Quality Management (Cont.)
(Garvin, 1988)**

Identifying Characteristics	<i>Inspection</i>	<i>Statistical Quality Control</i>	<i>Quality Assurance</i>	<i>Strategic Quality Management</i>
Who has responsibility for quality	the inspection department	the manufacturing and engineering departments	all departments although top management is only peripherally involved in designing, planning, and executing quality policies	everyone in the organization, with top management exercising strong leadership
Orientation and approach	"inspects in" quality	"controls in" quality	"builds in" quality	"manages in" quality

2.3.4.1. Inspection

Inspection is the first stage in the evolution of quality. Before manufacturing, workers produced goods in small batch volumes they inspected themselves. However, with the rise of mass production, interchangeable parts, and manufacturing in the 1800's, formal inspection became a necessity. Early manufacturing devices of the 1800's such as jigs, fixtures, and gauging systems required inspection. The purpose of inspection is to manufacture goods or products that meet or conform to specified requirements. In the 1920's, inspection became a part of quality control. Frederick Taylor viewed inspection and quality as a management responsibility and an independent function.

2.3.4.2. Statistical Quality Control

Statistical Quality Control (SQC) began in the 1930's with the industrial application of the control chart invented by Dr. W. A. Shewhart of Bell Laboratories (Ishikawa, 1985). Garvin (1988) states that Shewhart was the first to recognize that variability was a fact of industrial life and it could be understood using the principles of probability and statistics. Shewhart noticed that no two parts were likely to be manufactured exactly to the same specifications or requirements. Variation would appear to some degree due to operator skills, raw materials, or equipment. Shewhart developed the process control chart from simple techniques for determining limits with the use of graphic methods for plotting production values to assess whether the values fell within the acceptable range.

Dodge and Romig who also worked at Bell Labs developed sampling techniques for accepting or rejecting production lots. However, the average outgoing quality limit (AOQL) was developed to address the overall quality produced by a manufacturing process. By the 1940's, SPC had become a respected discipline within manufacturing even though its main focus stressed meeting quality requirements.

2.3.4.3. Quality Assurance

Quality Assurance is the third stage of the quality effort. Quality Assurance's main goal is prevention. Ishikawa (1985) states that instead of relying on inspection, if one produces no defective products from the beginning, in other words, if one controls the factors in a particular process which cause defective products, then one can save money spent on inspection through defect prevention. Garvin (1988) explains that Quality Assurance consists of four different parts: Costs of Quality, Total Quality Control, Reliability Engineering, and Zero Defects.

In 1951, Juran in his *Quality Control Handbook* exemplifies how the Cost of Quality is the cost of accomplishing a certain degree of quality divided into avoidable and

unavoidable costs. Unavoidable costs are related to prevention: inspection, sampling, sorting, and other quality efforts. Avoidable costs are associated with product failure and defects: labor hours required for rework and repair, complaint processing, scrapped materials, and financial losses from disenchanted customers.

Feigenbaum, in 1956, coined the concept of Total Quality Control (TQC) which addresses, from a quality viewpoint, new design control, incoming material control, and product or shop control. Feigenbaum (1983, p. 6) defines Total Quality Control as:

The underlying principle of an effective system for integrating the quality-development, quality-maintenance, and quality-improvement efforts of the various groups in an organization so as to enable marketing, engineering, production, and service at the most economical levels which allow for full customer satisfaction.

Reliability Engineering depends upon probability and statistics which is the assurance of acceptable product performance over time. It was introduced in 1950 by the Department of Defense. Reliability also aids engineers in reducing failure rates while products are still being designed. Reliability Engineering is also geared toward preventing product defects.

The program of Zero Defects was the brainchild of the Martin company in 1961-62, who at the time was responsible for building US Pershing missiles. The purpose or goal of Zero Defects is for everyone to perform perfectly the first time. The program of Zero Defects that the Martin Company initiated relied heavily on philosophy, motivation, and awareness. Philip Crosby, who worked for Martin during the time of the Zero Defect program, believes in its philosophy.

2.3.4.4. Strategic Quality Management

Strategic Quality Management is the last stage of the quality effort. Strategic Quality Management evolved due to losses of profitability and market share caused by poor

quality and growing foreign competition. Elements of the strategic approach to quality involve top management's responsibility to quality improvement, quality from the user's or customer's perspective, and training of suppliers in quality improvement efforts. Continuous improvement of all processes and commitment of all employees are also an element of Strategic Quality Management. Strategic Quality Management resembles both the Japanese's Company-Wide Quality Control and the US's latest approach to quality, Total Quality Management. Garvin (1988, p. 27) describes it as:

The strategic approach to quality as being more comprehensive than its predecessors, more closely linked to profitability and basic business objectives, more sensitive to competitive needs and the consumer's point of view, and more firmly tied to continuous improvements.

He also states this new concept of quality includes some important elements of the first three quality stages but goes further by connecting quality to a competitive advantage in the marketplace.

2.3.5. Quality Philosophy Gurus

Deming, Feigenbaum, Juran, Crosby, and Ishikawa contributed immensely to the evolution of quality and quality management. Many of today's organizations model their quality management programs from these men's philosophies. Each of these individual's philosophies and contributions to today's quality management will be reviewed in this section.

2.3.5.1. W. Edwards Deming

Deming is responsible for contributing to Japan's quality revolution beginning in the early 50's and expanding over two decades. Deming emphasizes that improved product and service quality will lead to a chain reaction that will result in increased productivity,

lower cost, greater market share, increased pride of workmanship, happier people on the job, and a greater competitive position. Mann (1989) states there are two fundamental ideas supporting the Deming Doctrine: management must strive to develop business over the long term by the delivery of high quality, dependable products and services.

Walton (1990, p. 12) states the following about Deming's contribution to the Japanese quality improvement effort:

W. Edwards Deming taught Japanese management and engineers quality as a system, how to pinpoint variation or swings in their processes, enabling them to detect and eliminate defects, thus cutting down on waste and reducing costs while simultaneously increasing productivity. These methods were referred to as statistical quality control (SQC) or statistical process control (SPC).

The Japanese also developed sophisticated ways to employ SPC through participatory management that engaged every employee's knowledge and abilities at all levels, through the use of teams and suggestion systems that focused on customer satisfaction. Deming (1986, p. 5) at a conference with top Japanese management states:

Quality begins with the intent, which is fixed by management. The intent must be translated by engineers and others into plans, specifications, tests, and production. Production is viewed as a system. Improvement of quality envelops the entire production line, from incoming materials to consumer, and redesign of product and service (See Figure 2.5.).

Deming also contributes to quality management the seven deadly diseases and obstacles, the concept of variation, the application of SPC techniques, the Plan-Do-Study-Act cycle and the Fourteen Points. Organizations are using these concepts to help them recognize areas targeted for quality improvement. Moreover, the Fourteen Points are being used by organizations as the guiding principles to the implementation of TQM.

Walton (1990) claims Deming offers direction for the transformation of the static American style of management in *Out of the Crisis*. Deming explains in detail the Fourteen

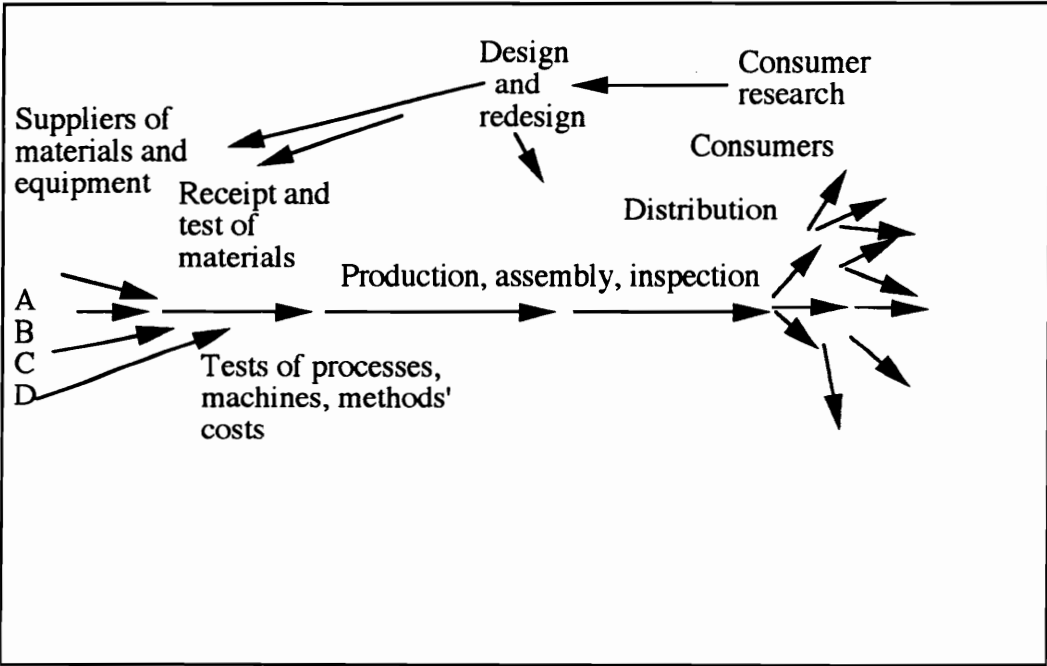


Figure 2.5. Production Viewed as a System
(Deming, 1986)

Points, the Seven Deadly Diseases and Obstacles that embody his views, as well as the essentials of statistical quality control. Deming notes that many American organizations are crippled by the seven deadly diseases and obstacles and cannot make steps toward quality improvement until understanding and removing them (See Table 2.8.). Deming's Fourteen Points are seen by many organizations as the roadmap to quality improvement and to regaining a competitive advantage in the world marketplace (See Table 2.9.).

Dr. Shewhart's studies on SPC contributed immensely to Deming's use of statistical aids in the continuous improvement of the production process and the making of quality products. However, all employees must understand the concept of variation and the application of SPC techniques in order to improve organizational systems. In understanding the concept of variation a differentiation must be made between common causes and special causes. Deming (1986, p. 314) makes the distinction between special and common causes as:

A fault in the interpretation of observations, seen everywhere, is to suppose that every event (defect, mistake, accident) is attributed to someone (usually the one nearest at hand), or is related to some special event. The fact is that most troubles with service and production lie in the system. Sometimes the faults are indeed local, attributable to someone on the job or not on the job when he should be. We shall speak of faults of the system as common causes and faults of fleeting events as special causes.

Special causes of variation are usually attributed to some specific worker, group, or some fleeting incident while common causes of variation are usually attributed to the system. Deming estimates that 94% of the troubles a process experiences belongs to the system, which is the responsibility of management, and 6% is attributed to special causes.

Table 2.8. Deming's Seven Deadly Diseases and Obstacles
(Excerpts from Deming, 1986, p. 97-143)

Seven Deadly Diseases:

1. Lack of constancy of purpose
2. Emphasis on short-term profits
3. Evaluation of performance, merit rating, or annual review
4. Mobility of management; job hopping
5. Management by use only of visible figures, with little or no consideration of figures that are unknown or unknowable
6. Excessive costs of liability, swelled by lawyers who work on contingency fees

Obstacles:

1. "Hope for instant pudding"
2. The supposition that solving problems, automation gadgets, and new machinery will transform industry
3. Search for examples (*Look for cookbook procedures*)
4. "Our problems are different"
5. Obsolescence in schools
6. Poor teaching of statistical methods in industry
7. Use of Military Standard 105D and other tables for acceptance
8. "Our quality control department takes care of all our problems of quality"
9. "Our troubles lie entirely in the workforce"
10. False starts (*Deceptions that lead to failures of quality efforts. For example, lack of management support caused many Quality Control Circles in America to fail*)
11. The unmanned computer (*Computers can store and provide data, but they are tools which can produce useful information only when used properly*)
12. The supposition that it is only necessary to meet specifications
13. The fallacy of zero defects (*Merely satisfying requirements will not satisfy all customers. Narrowing the specification distribution will help achieve zero defects, but will probably increase costs and cause customer dissatisfaction*)
14. Inadequate testing of prototypes
15. "Anyone who comes to help us must understand all about our business"

**Table 2.9. The Fourteen Points
(Deming, 1986)**

1.	<i>Create constancy of purpose for improvement of product and service.</i> Dr. Deming suggests a radical new definition of a Company's role: rather than to make money, it is to stay in business and provide jobs through innovation, research, constant improvement, and maintenance.
2.	<i>Adopt the new philosophy.</i> Americans are too tolerant of poor workmanship and sullen service. We need a new religion in which mistakes and negativism are unacceptable.
3.	<i>Cease dependence on mass inspection.</i> American firms typically inspect a product as it comes off the assembly line or at major stages along the way; defective products are either thrown out or reworked. Both practices are unnecessarily expensive. In effect, a company is paying workers to make defects and then to correct them. Quality comes not from inspection but from improvement of the process. With instruction, workers can be enlisted in this improvement.
4.	<i>End the practice of awarding business on the price tag alone.</i> Purchasing departments customarily operate on orders to seek the lowest-priced vendor. Frequently, this leads to suppliers of low quality. Instead, buyers would seek the best quality in a long-term relationship with a single supplier for any one item.
5.	<i>Improve constantly and forever the system of production and service.</i> Improvement is not a one-time effort. Management is obligated to continually look for ways to reduce waste and improve quality.
6.	<i>Institute training.</i> Too often, workers have learned their job from another worker who was never trained properly. They are forced to follow unintelligible instruction. They can't do their jobs well because no one tells them how to do so.
7.	<i>Institute leadership.</i> The job of a supervisor is not to tell people what to do nor to punish them, but to lead. Leading consists of helping people do a better job and of learning by objective methods who is in need of individual help.
8.	<i>Drive out fear.</i> Many employees are afraid to ask questions or to take a position, even when they do not understand what their job is or what is right or wrong. They will continue to do things the wrong way, or not do them at all. The economic losses from fear are appalling. To assure better quality and productivity, it is necessary that people feel secure.
9.	<i>Break down barriers between staff areas.</i> Often, a company's departments or units are competing with each other or have goals that conflict. They do not work as a team, so they can solve or foresee problems. Worse, one department's goals may cause trouble for another.

**Table 2.9 The Fourteen Points (Cont.)
(Deming, 1986)**

10.	<i>Eliminate slogans, exhortations, and targets for the workforce.</i> These never helped anybody do a good job. Let workers formulate their own slogans.
11.	<i>Eliminate numerical quotas.</i> Quotas take into account only numbers, not quality or methods. They are usually a guarantee of inefficiency and high cost. A person, to hold a job, meets a quota at any cost without regard to damage to the company.
12.	<i>Remove barriers to pride of workmanship.</i> People are eager to do a good job and distressed when they cannot. Too often, misguided supervisors, faulty equipment, and defective materials standing the way of good performance. These barriers must be removed.
13.	<i>Institute a vigorous program of education and retraining.</i> Both management and the workforce will have to be educated in the new methods, including teamwork and statistical techniques.
14.	<i>Take action to accomplish the transformation.</i> It will require a special top management team with a plan of action to carry out the quality mission. Workers cannot do it on their own, nor can managers. A critical mass of people in the company must understand the Fourteen Points, the Seven Deadly Diseases, and the Obstacles.

The process of continuous quality improvement is a never ending circular cycle. Deming's PDSA Cycle of continuous quality improvement is adapted from the Shewhart cycle. Several authors have made different interpretations of the Deming Cycle. Walton (1990) describes the cycle as having four stages in which an organization decides a change, does it, checks the results, and, depending on the results, acts either to standardize the change or to begin the cycle of improvement again with new information. Perigord (1987) calls the Deming Cycle the Deming Wheel. He states there are three cycles that the wheel follows; the first cycle is improvement, the second is maintaining what has been maintained, and third is the motor which operates continuously with all of the organization's actions. The wheel itself is divided into four sections: plan, do, study, and act. Scherkenbach defines the cycle as a procedure for the improvement of analytical problem opportunities. Scherkenbach (1990, pp. 36-39) further explains there are four steps in the procedure:

Step 1: Recognize the opportunity and operationally define it.

Step 2: Test the theory to achieve the opportunity.

Step 3: Observe the test results.

Step 4: Act on the opportunity.

It is important to note this cycle is customer driven and focuses on meeting the customers' needs and keeping them satisfied. Many organizations are using the Deming Cycle to improve their quality on a continuous basis (See Figure 2.6.).

2.3.5.2. Armand V. Feigenbaum

Feigenbaum introduced the concept of Total Quality Management to industry.

Feigenbaum's (1983, p. 823) definition of Total Quality Management is:

An effective system for integrating the quality-development, quality-maintenance, and quality-improvement efforts of the various groups in an organization so as to enable marketing, engineering, production, and service at the most economical levels which allow for full customer satisfaction.

Feigenbaum states that quality is determined by the customer and not the functions within the organization such as marketing, engineering, or management. He further states that one of the main objectives of quality is satisfying the customers' requirements whether stated or not. Therefore, quality is dynamic and always changing in a competitive environment.

Total Quality Control's principal objective is customer satisfaction. The benefits of customer satisfaction achieved through Total Quality Control programs are improvements in product quality, product design, production flow, employee morale, quality consciousness, product service, and marketplace acceptance. Feigenbaum (1983, p. 150) defines the companywide impact of Total Quality Control as:

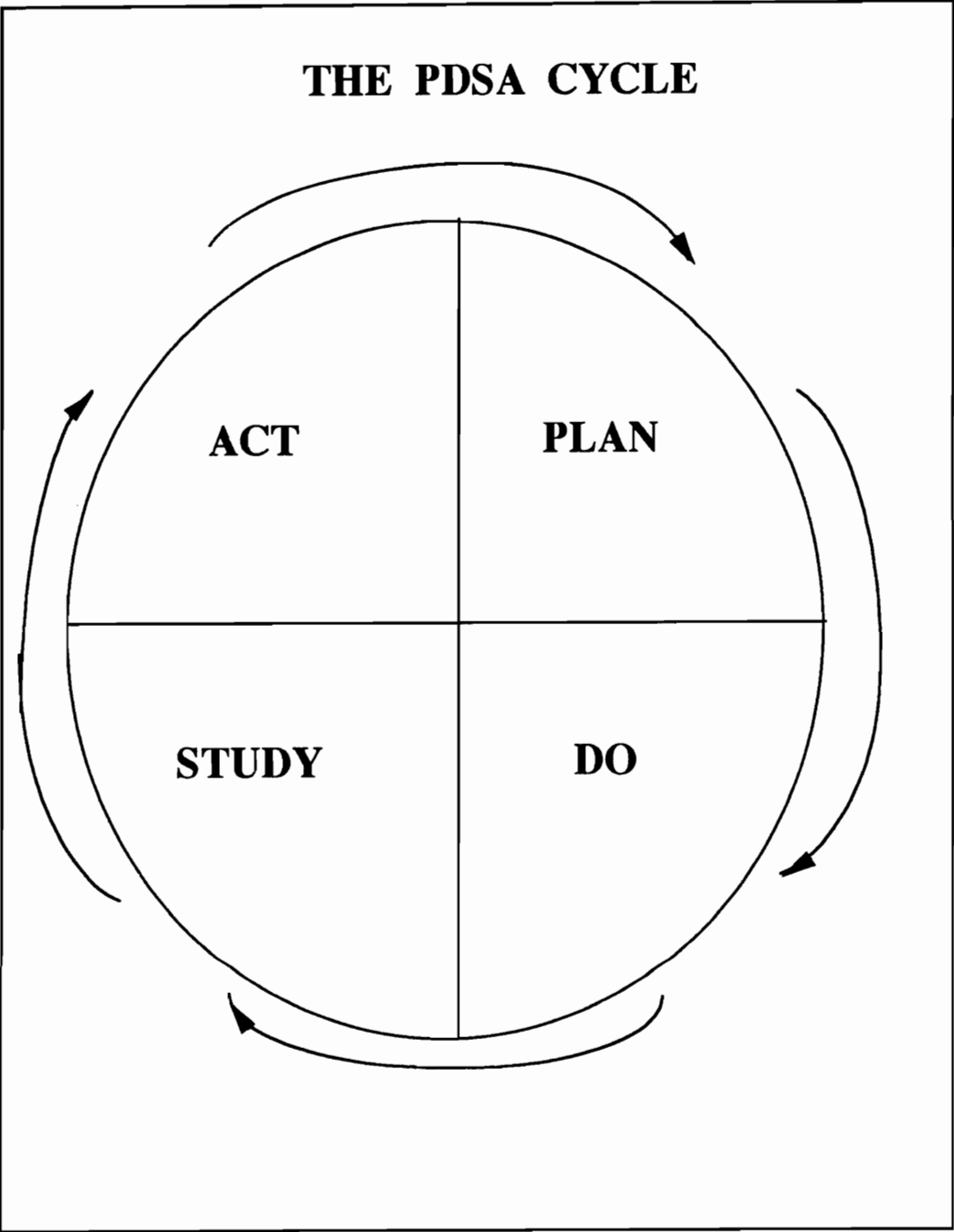


**Figure 2.6. Deming Cycle
(Walton)**

The managerial and technical implementation of customer-oriented quality activities as a prime responsibility of general management and of main-line operations of marketing, engineering, production, industrial relations, and service as well as of the quality-control function itself.

Feigenbaum (1983, p. 158) defines the two organizational principles of total quality as: 1) quality is everybody's job in the business; and 2) because quality is everybody's job in a business, it may become nobody's job. Feigenbaum addresses the first principle by denoting the key quality responsibilities of major functional groups:

1. *Product Planning, Marketing, and Sales*--for the product description that will best fulfill the customers' wants and needs in use, the presentation of product-quality data to the customer, and the determination of quality standards with the customer.
2. *Product Engineering*--for the original product design, the writing of specifications, the establishment of guarantees, and the selection of materials, tolerances, and operating characteristics.
3. *Manufacturing Engineering*--for the selection of machining and processing equipment; the design of appropriate jigs and fixtures; analysis of certain types of manufacturing difficulties which may arise in producing quality of the desired standard; and the selection of methods, development of work places, and provision of satisfactory working conditions.
4. *Purchasing*--for choosing vendors and the quality guarantees demanded from the vendors .
5. *Laboratory*--for the quality standards set for materials and processes; the approval of the quality of critical materials, either purchased or processed; and recommendations on the use of special processing techniques.

6. *Production Supervision*--for operator education; proper attention to, and care for, manufacturing facilities; proper interpretation of drawings and specifications; and for actual control over the manufactured parts as they are being produced.
7. *Production Employee*--for skill, care, and quality of workmanship.
8. *Inspection and Testing*--for judging the quality of incoming parts and materials and appraising the conformance of manufactured parts and assemblies to specifications.
9. *Packaging and Service*--for the adequacy of the container into which the product is placed and for the shipment of the product.
10. *Product Service*--for providing the customer with the means for fully realizing the intended function of the product during its expected life; for example, maintenance and repair instructions, and replacement parts.

Feigenbaum responds to the second principle of the Total Quality Control organization by stating the two basic functions of a modern quality control function are to provide quality assurance for business products and to assist in assuring optimum quality costs for those products. To exercise these two functions, three basic responsibilities must be achieved: business, systems, and technical. The *business* responsibility contributes to the business planning and business implementation. These actions will lead to the firm's market growth, cost control, and customer satisfaction. The *systems* responsibility of quality control provides the primary leadership in the organization for engineering and management of a strong quality control system. Lastly, *technical* responsibility provides the major operating control and assurance activities. These three quality responsibilities represent a larger domain than the quality control function of old.

Three subfunctions of quality control fulfill the modern quality control component which consist of principles, functions and responsibilities. The subfunctions of quality control are: quality engineering, process-control engineering, and quality information equipment engineering. *Quality engineering* establishes detailed quality planning which assists in the implementation of the quality system in the organization. *Process-control engineering* monitors the application of quality control on the plant floor. *Quality control information engineering* designs and develops the inspection and testing equipment for gathering the required measurements, controls, and information flow for quality. Figure 2.7. displays the basic structure for the quality control function. The underlying principle of Total Quality Control is quality of products and services is the main key to the success of an organization.

2.3.5.3. J.M. Juran

Juran was one of the first contributors to quality management beginning in the fifties. Juran's major contributions to the discipline are his: definitions of quality, the Spiral concept, and the Quality Trilogy which denotes that quality management is composed of three processes: quality planning, quality control, and quality improvement. Juran also devised a Planning Road Map that can help organizations gain a better understanding of designing a feedback loop and learning the mobilization for quality improvement.

Juran (1988, 1989) defines quality as having two critical dimensions: product performance (product satisfaction) and freedom from deficiencies (product dissatisfaction). Having freedom from deficiencies does not mean that products will have product satisfaction even though product performance leads customers to buy the product, while deficiencies lead customers to complain. An organization can have a defect free but unsalable product due to competitors offering higher performing products.

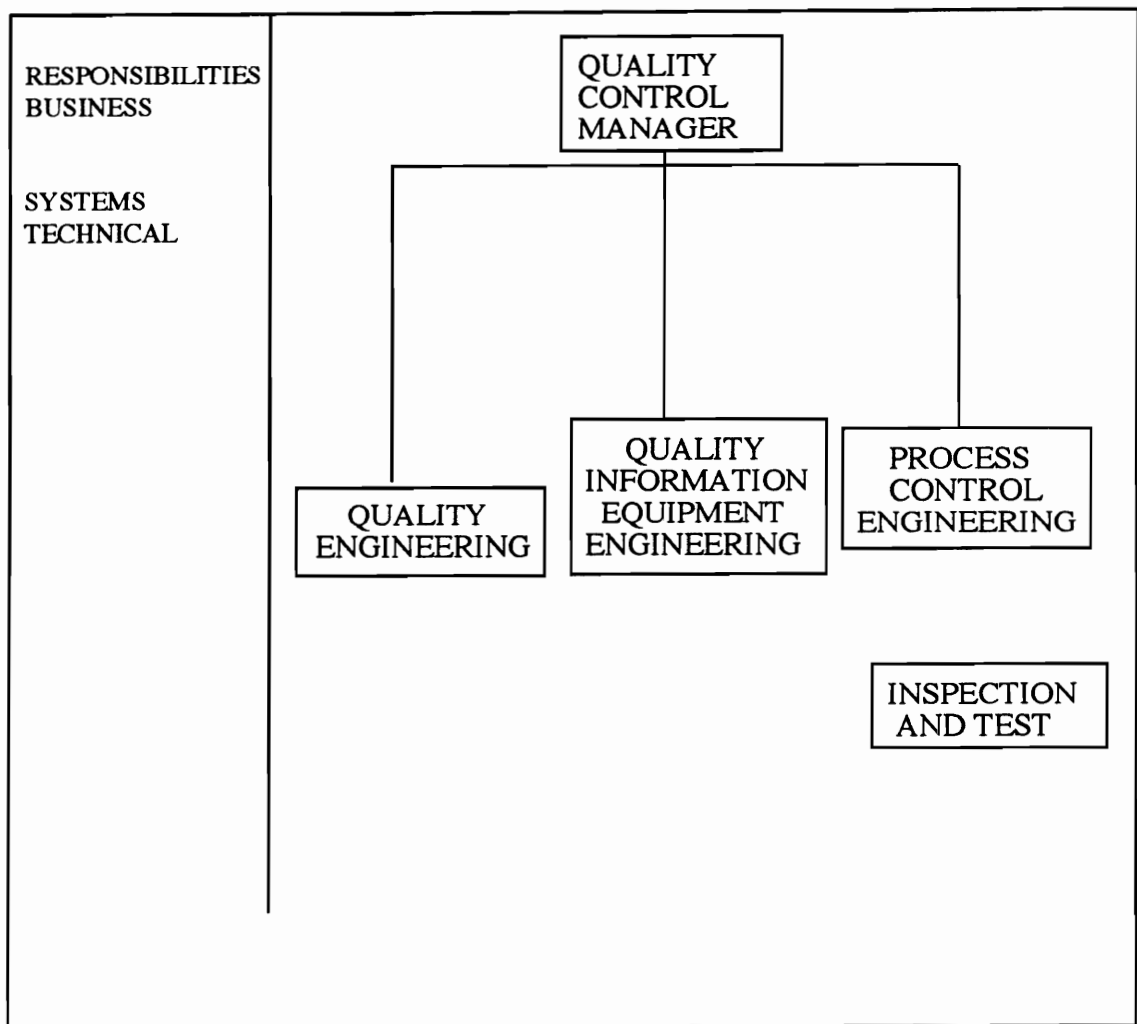


**Figure 2.7. The Basic Structure for a Quality-Control Function
(Feigenbaum, 1983)**

Juran's (1988) definition of quality is fitness for use. Therefore, there are many uses and users of a product or service, which is represented by the Spiral (See Figure 2.8.). The Spiral depicts the continuous process of how a customer from one relationship can become a supplier in another. This is a means of showing how internal functions within an organization are interrelated and are customers to each other.

The Quality Trilogy denotes a parallel of the financial processes: budgeting; cost control; expense control; and cost reduction; and profit improvement. Moreover, quality management consists of quality control, quality planning, and quality improvement. Juran (1988, 1989) implies that quality planning, as an activity, develops processes and products to meet customers' needs. Therefore, processes and customers can be both internal and external.

In Juran's (1989) "alligator hatchery" analogy, he relates quality planning to quality improvement. Each live alligator is a problem or a prospective potential quality improvement project, and a dead alligator represents the successful implementation of quality improvement. Consequently, if managers can kill all the alligators, quality improvement efforts would be finished temporarily. Managers have to change the quality planning process in order to ward off new alligators. Juran (1989, p. 82) states "A benign hatchery produces a new, useful quality plan and a malignant hatchery produces new alligators." Juran (1989) indicates there are four levels of quality planning: worker, departmental, multi-functional, and corporate or divisional. Figure 2.9. depicts Juran's concept of a quality planning road map.

The control process of quality involves a feedback loop which incorporates five steps and elements: sensor, umpire, goal, actuator, and process (See Figure 2.10.). At different levels these elements vary. At the workforce level, control evolves around product and process and goals are related to specifications and procedures; therefore, sensors and decisions focus on measuring and deciding product and process confirmation

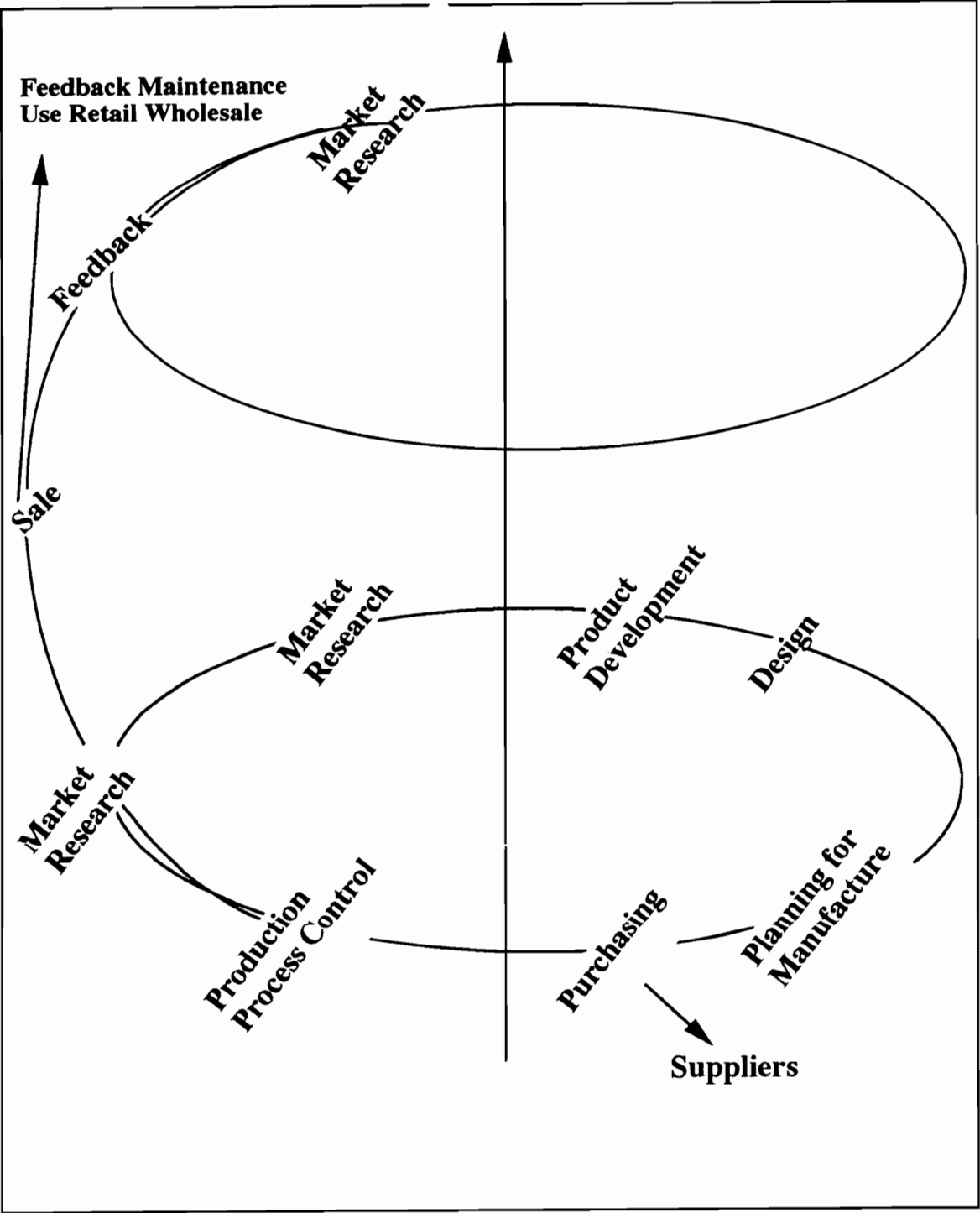


Figure 2.8. The Spiral of Progress in Quality
(Exerpt from Juran, 1989, p. 109)

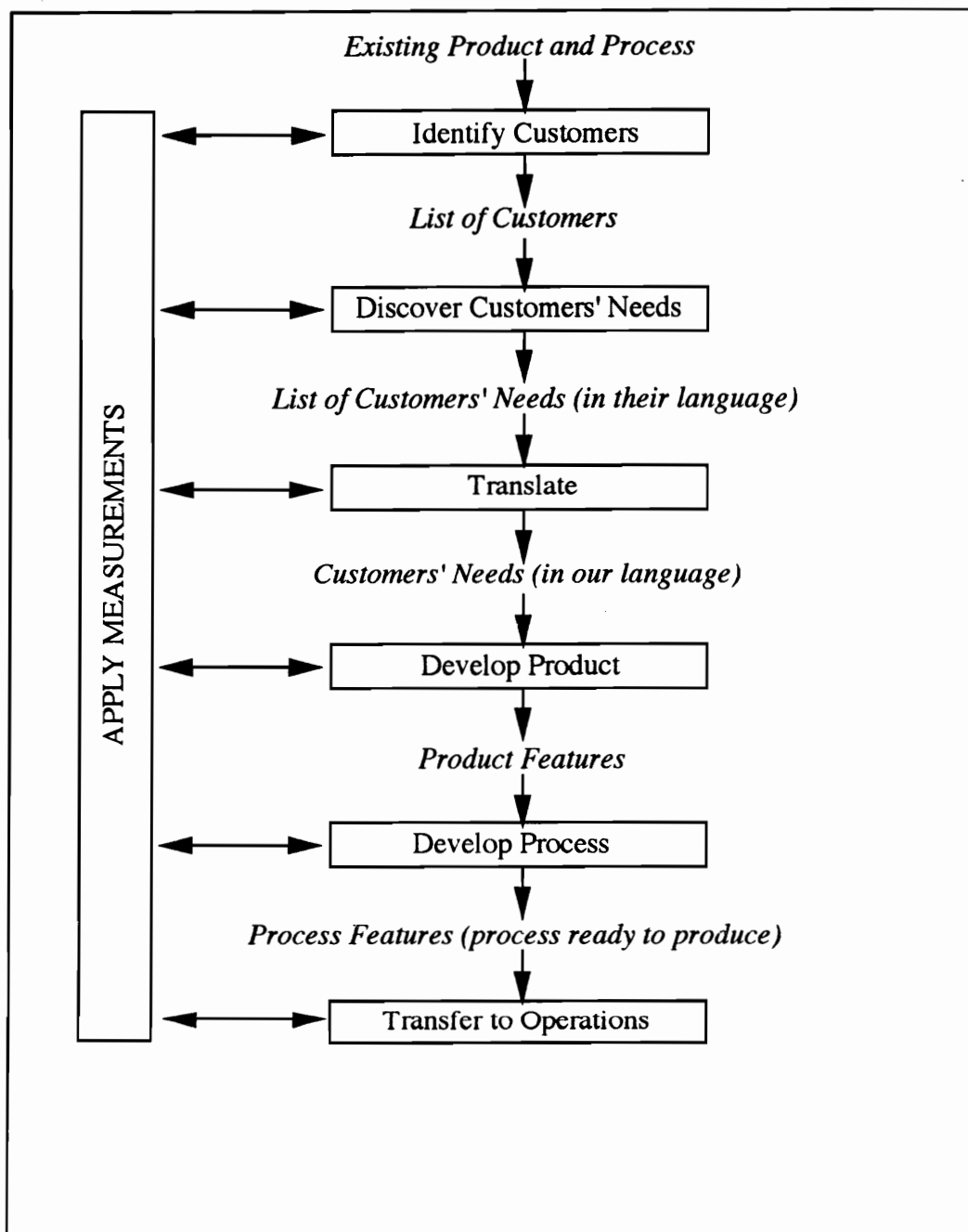


Figure 2.9. The Quality Planning Road Map
(Excerpt from Juran, 1989, p. 88)

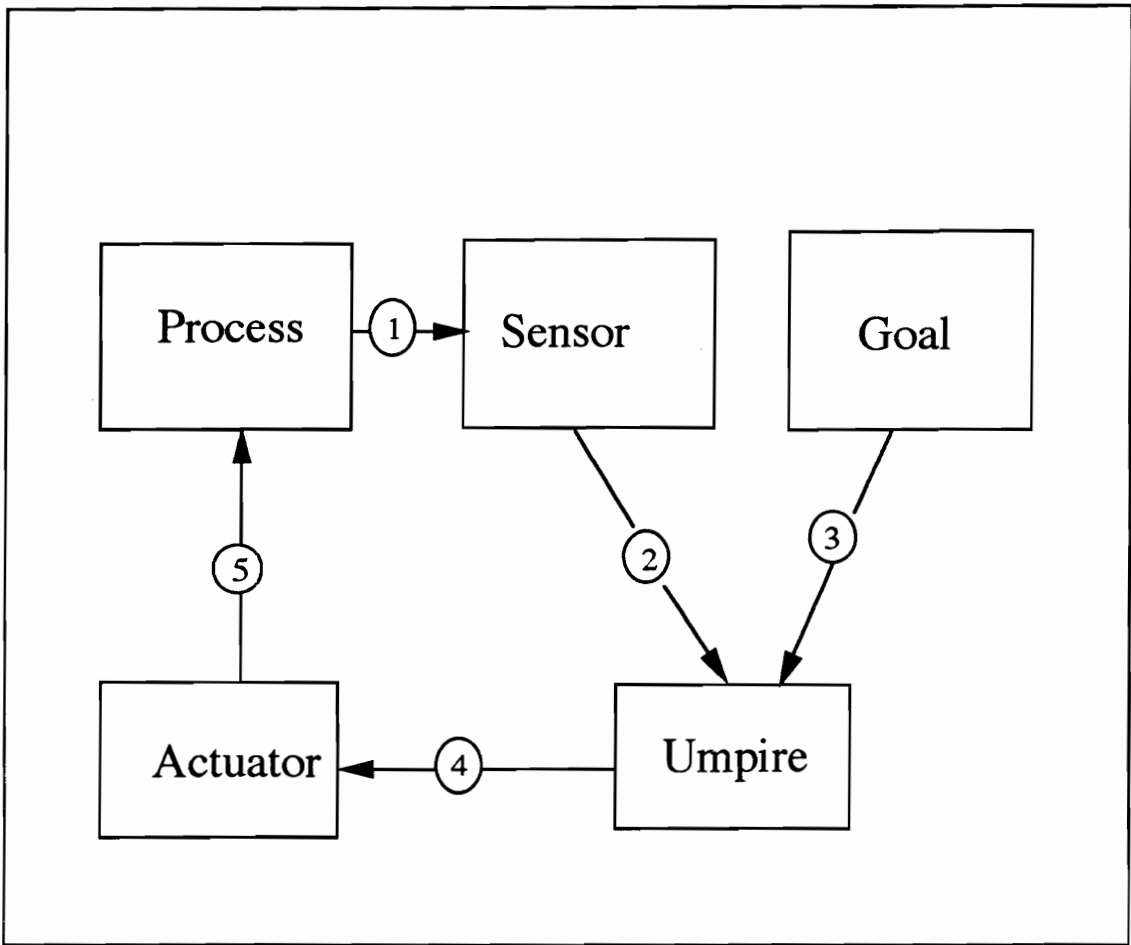


Figure 2.10. The Feedback Loop
(Excerpt from Juran, 1989, p. 146)

to specifications. At the managerial level, control is business oriented, and goals are to compete and acquire market share which lead sensors to encompass the data system and decisions to meet customers' needs.

Juran states that both quality planning and control contribute to quality improvement. In order for an organization to mobilize for quality improvement, it must establish an infrastructure for quality management which will include a quality council, the training of quality champions and facilitators, and the education and training of employees on improvement processes, techniques, and tools (See Table 2.10.).

Juran describes TQM as Company-Wide Quality Management (CWQM) which consists of three levels of management: Strategic Quality Management, Operational Quality Management, and Work Force and Quality. Juran (1988, p. 313) states that introducing CWQM in an organization requires:

1. A companywide quality committee;
2. The quality equivalent of the financial controller;
3. Designing CWQM to be similar to the existing business planning system; and
4. Revising the merit rating system so that it stimulates the managers to accept the new quality goals.

2.3.5.4. Philip Crosby

Crosby introduces quality management through concepts and programs: Zero-Defects, Buck a Day, The Fourteen Steps Program, The Absolutes of Quality Management, Quality Management Maturity Grid, Make Certain, and others. Crosby has introduced the concept of quality management to many organizations through his books, *Quality is Free*, *Quality Without Tears*, *The Art of Getting Your Own Sweet Way*, seminars, lectures and his Quality College. Crosby (1979, p. 19) defines quality management as:

Table 2.10. Quality Improvement -- The Interrelation of Elements
(Excerpt from Juran, 1989, p. 35).

	Mobilizing for Quality Improvement	
	• Establish quality council • Statement of responsibilities • Improvement	
Establish infrastructure	Projects collectively	Projects individually
Subcouncils	Strategic improvement goals	Nomination
Director of quality	Deployment	Screening
Quality-improvement managers	Projects	Selection
Sponsors, champions	Resources	Mission statements
Facilitators	Progress review	Project teams
Structured improvement process	Recognition	Life cycle of a project: diagnosis; remedy; cloning
Training; method; tools	Rewards	

A systematic way of guaranteeing that organized activities happen the way they were planned. It is a management discipline concerned with preventing problems from occurring by creating the attitudes and controls that make prevention possible.

Crosby defines quality as the conformance to requirements and its measure is the cost of quality of not doing things right the first time.

Crosby (1979) believes that part of the responsibility of managing an organization is admitting that some of the problems encountered by the organization are caused by management. Crosby introduces the Quality Management Maturity Grid to help management realize they are responsible for and cause problems within the operation of the organization. The Maturity Grid (1979) consists of levels of understanding beginning with

the first level and progressing to the last: uncertainty, awakening, enlightenment, wisdom, and certainty.

Crosby's Buck A Day (BAD) program is designed to seek out ideas for quality improvements. Crosby (1979, p. 48) describes the program as:

A five week program that lets you go to the people in an entertaining fashion and ask them to provide ideas for their jobs that will save \$1 a day by eliminating some unnecessary expenses. That is \$250 a year per person. If a company employees 1000 people it becomes \$250,000 a year. The program always succeeds and the return is usually \$100 for each \$1 invested.

Crosby (1979) states that the real purpose of the BAD program is the improvement in communications and morale.

Crosby's (1984) four absolutes of quality management are his steps to the quality improvement process. The four absolutes are:

Absolute 1: The definition of quality is conformance to requirements.

Absolute 2: The system of quality is prevention.

Absolute 3: The performance standard is zero defects.

Absolute 4: The measurement of quality is the price of nonconformance.

In addition to his four absolutes, Crosby (1984, p. 99) also developed the Fourteen Step Program to assist management in their efforts to improve quality of products and/or services within the organization. The fourteen steps are:

Step 1. Management Commitment

Step 2. Quality Improvement Team

Step 3. Quality Measurement

Step 4. Cost of Quality Evaluations

Step 5. Quality Awareness

Step 6. Corrective Action

Step 7. Establish an Ad Hoc Committee for the Zero Defects Program

Step 8. Supervisor Training

Step 9. Zero Defects Day

Step 10. Goal Setting

Step 11. Error Cause Removal

Step 12. Recognition

Step 13. Quality Councils

Step 14. Do It Over Again

In contrast, many people do not agree with Crosby's concepts, especially Zero Defects. Crosby's adversaries of the Zero Defect concept perceive it as a motivational program and in contradiction of statistical inherent variation and the Pareto Principle. However, Crosby (1979) defines Zero Defects as a management standard that personifies doing the job right the first time.

Crosby (1984) indicates that the individual's role in improving quality must be understood by everyone in the organization. This is done through the education process of quality management. Crosby (1984, pp. 92-93) defines the education process as "six C's":

Comprehension --is the understanding of what is necessary and the abandonment of the "conventional-wisdom" way of thinking. This is a key to the cultural change required by organizations that are determined to improve.

Commitment--is the expression of dedication on the part of management first and everyone else soon after. It is the deep-seated determination to cause the cultural change. In management's case this is demonstrated by example and by positive thinking.

Competence--is the implementation of the improvement process in a methodical way. Everything must be dealt with and applied in a way that will cause the cultural alteration to take place. This is no place for manipulation or motivation.

Correction--is the elimination of the opportunities of error by identifying current problems and tracking them back to their basic cause. It is easy to fix problems, particularly old ones. It requires all of the above C's to eliminate them.

Communication--is the complete understanding and support of all people in the corporate society including suppliers and customers. It happens only when the organization reaches out to them and makes sure they recognize their role in causing quality to happen.

Continuance--is the unyielding remembrance of how things used to be and how they are going to be. A formal effort is required forever, no matter how well everything is turning out.

Crosby has contributed immensely to many organizations' successful implementation of quality improvement programs through his quality concepts and programs.

2.3.5.5. Kaoru Ishikawa

Japanese quality efforts are based on the philosophies of Deming, Juran, and Feigenbaum. Ishikawa is considered the father of Quality Control Circles (QCC). Ishikawa has also contributed immensely to the Japanese's style TQC called Company-Wide Quality Control. Ishikawa (1985) defines Company-Wide Quality Control as a means to provide good and low cost products and dividing the benefits among consumers, employers, and stockholders while improving the quality of people's lives.

Ishikawa (1985, p. 37) denotes the six characteristics that distinguish Japanese style quality control from Western style quality control:

1. Company-Wide Quality Control; participation by all members of the organization in quality control
2. Education and training in quality control
3. QC circle activities
4. QC audits (Deming Application Prize and presidential audit)
5. Utilization of statistical methods
6. Nationwide quality control promotion activities

Each of six characteristics of Japanese style quality control will be discussed in the following paragraphs.

Earlier in the section on Feigenbaum, it was mentioned that he coined the concept of Total Quality Control. Feigenbaum also advocated that TQC is a responsibility of specialists within the organization and not everyone's job in the organization. However, in the Japanese style of CWQC, quality control is the responsibility of all divisions and all employees. Ishikawa (1985, p. 92) uses three rings to explain his concept of CWQC:

The essence of TQC is found in the central ring which contains quality assurance narrowly defined, which means doing QC well for the company's new products. Once the meanings of QC and of good quality and good services become clear, the second ring comes into play. This ring represents control of quality that is more broadly defined. When the ring is broadened further, the third ring stresses the control of all phases of work to be done effectively which utilizes Deming's PDSA cycle. (See Figure 2.11.).

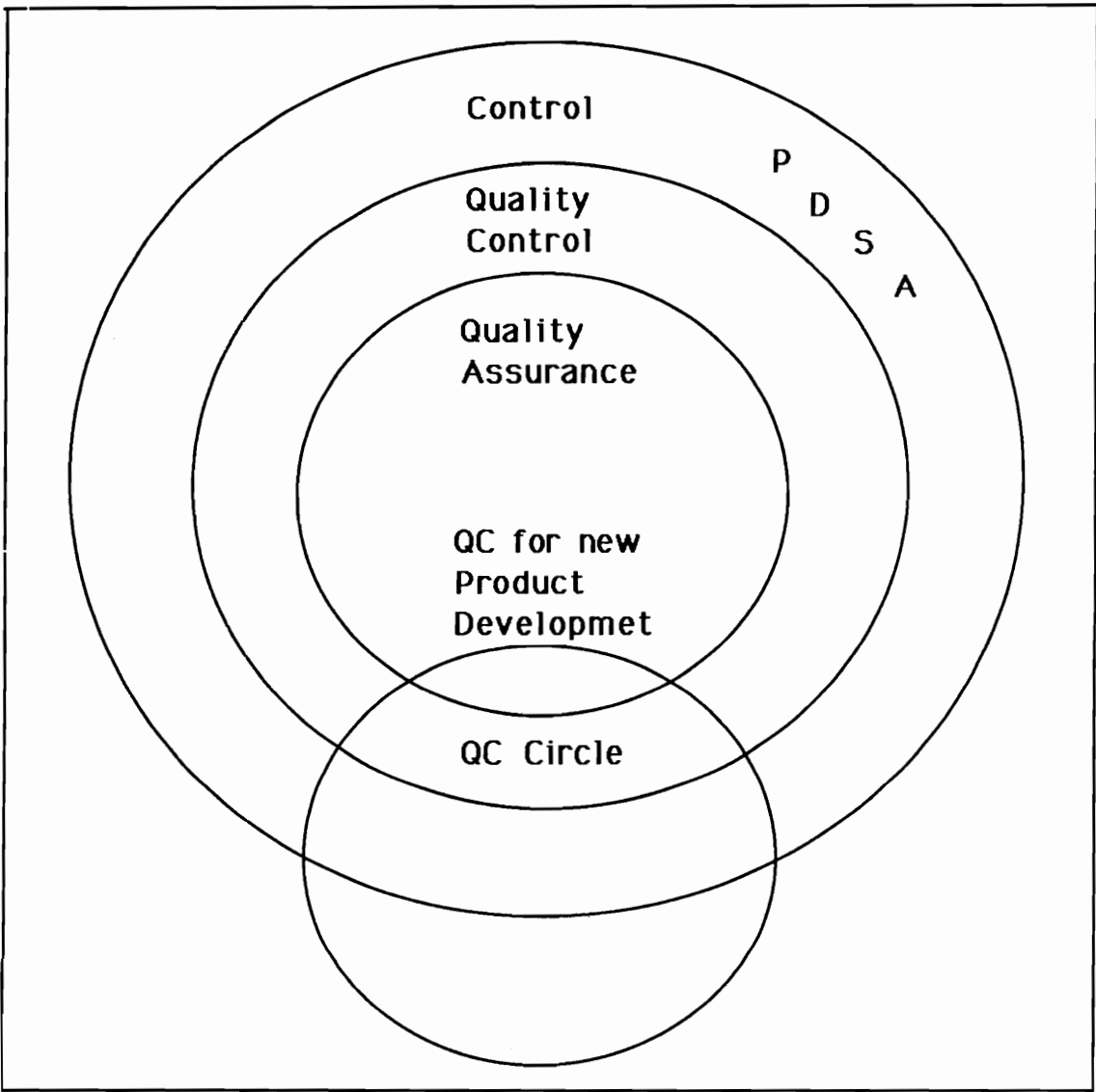


Figure 2.11. Organization-wide Quality Control
(Perigord, 1987)

Ishikawa denotes QC circles' activities as the ring that intersects all other rings.

Ishikawa (1985, p. 37) thoughts on education and training in quality control are:

Quality Control begins with education and ends with education. To promote QC with participation by all, QC education must be given to all employees, from the President to the assembly worker. QC is a thought revolution in management; therefore, the thought processes of all employees must be changed.

CWQC emphasizes: quality control education at all levels, long term education, education and training within the organization, education continued permanently, and formal education as being less than one-third of the total educational effort.

Ishikawa understood that education and training of all employees about CWQC was not enough to make quality products. Full cooperation from line workers making the products was also needed. This concept led to the beginning of the journal *Gemba-to-QC* or *QC for foreman* (FQC) which also lead to QC circle activities. In 1963, QC headquarters was established. The definition of QC circles published by QC headquarters is a small group that performs quality control activities voluntarily within the same workshop (Ishikawa, 1985). Ishikawa (1985, p. 140) defines the basic activities carried out by QC circles as a part of CWQC as:

1. Contribute to the improvement and development of the enterprise.
2. Respect for humanity and build a worthwhile-to-live-in, happy, and bright workshop.

3. Exercise human capabilities fully, and eventually draw out infinite possibilities.

Ishikawa (1985) discloses ten items as useful guides in conducting QC activities: 1) voluntarism, 2) self-development, 3) mutual development, 4) participation by all members, 5) utilization of QC techniques, 6) activities closely connected with the workplace, 7) vitality and continuity in QC activities, 8) mutual development, 9) originality and creativity, and 10) awareness of quality, problems, and improvement.

The Quality Control Audit audits the process of quality control implementation while giving the appropriate diagnosis and displaying the way to correct its shortcomings (Ishikawa, 1985). The QC audit is similar to process control and is directly associated with judging the quality of products to be manufactured in the future. There are four categories of QC audits by outsiders (Ishikawa, 1985, p. 187):

1. QC audit of the supplier by the purchaser.
2. QC audit conducted for the purchase of certification.
3. QC audit for the Deming Application Prize and Japan Quality Medal.
4. QC audit by consultant.

A difference between quality audits and QC audits is that quality audits study the quality of a given product by taking samples from either within the Organization or from the marketplace (Ishikawa, 1985). Whereas, QC audits help diagnose how well quality control functions work within the organization.

The use of Statistical Quality Control is to analyze data, make estimates and make judgments about the data. QC is analogized to control facts and most individuals do not look at the facts accurately and submit incorrect data. Ishikawa (1985) denotes that there are many false data used in organizations because of mistaken data and the inability to obtain and measure data accurately. Through the use of process and quality analysis in the application of QC, organizations have been able to bring about improvements in quality, cost reduction, and efficiency. If a manager does not utilize data and statistical methods, and relies only on his own experience and "gut" feelings, he is admitting that his organization does not process high technology (Ishikawa, 1985). Also, Ishikawa contributed to the development of the Guide to Quality Control where he describes different tools used in improving quality.

Japan has a range of activities which promote and emphasize quality control. The QC Research Group and Quality Month Committee are examples of organizations that contributed to postwar development of quality activities in Japan. The key to Japan's success has been in the simultaneous establishment of industrial standardization and national standards, along with quality control, and in the promotion of these activities (Ishikawa, 1985).

2.3.6. Quality Management Interventions

Quality interventions can be defined as actions or means organizations use to transform or transpose their quality policies and principles into daily use or practice. The six quality checkpoints of the quality management process coordinates all quality practices within an organization. Quality interventions can either enhance or immobilize the quality management process within an organization. Pang (1990) states that initiating the quality management process within an organization include the following improvement interventions:

1. Including customers and suppliers in their improvement efforts;
2. Promoting quality improvement awareness and culture within the organization;
3. Obtaining leadership and commitment to quality improvement efforts by top management;
4. Establishing an infrastructure;
5. Planning strategically for quality;
6. Encouraging employee participation and involvement;
7. Communicating the quality improvement concept;
8. Identifying areas of improvement;
9. Providing employees with education and training;
10. Measuring the organization's performance for improvement; and
11. Recognizing and rewarding achievement.

Another intervention that is important to an organization's success in the practice of quality management is teamwork. Each of these quality improvement interventions will be discussed briefly in the following paragraphs.

2.3.6.1. Including Customers and Suppliers in Improvement Efforts

An organization's main total quality objective is to produce goods or services that satisfy and delight the customer. This can be achieved if customers help organizations identify the right actions to satisfy them and keep them satisfied. Therefore, the customer is the driving force of quality improvement efforts.

Organizations should include suppliers in their improvement efforts by assisting them in their quality improvement efforts in making a better product at a lower cost. The organization will benefit from the suppliers' quality improvement efforts through receiving

better quality goods with less variability, reduced scrap, and reduced rework, which will eventually lead to making a better product at a lower cost.

2.3.6.2. Promoting Quality Improvement Awareness and Culture

Crosby (1979, p. 181) states the purpose of quality awareness is to provide a method of raising the personal concern felt by all personnel in the organization toward the conformance of the product and service and the quality reputation of the organization. Crosby (1979) also states that two essential ingredients of quality awareness include: 1) regular meetings between management and employees to discuss specific nonconformance problems and 2) the use of posters, articles, and special events to share information about the quality program.

In contrast, Deming's tenth point of his fourteen points stresses eliminating slogans, exhortations, and targets for the workforce (Deming, 1986). Deming advocates eliminating slogans, exhortations, and posters because they are targeted toward the wrong people. Management is responsible for 94% of the problems within a system, common causes. Therefore, posters, slogans, and exhortations lead employees to frustration and resentment by making them feel they are responsible for the problems of the system instead of management.

Juran bridges the gap between Crosby's and Deming's beliefs on the promotion of quality awareness and culture. Juran (1989) states that organizations can create quality awareness at the supervisory and worker levels by increasing the visibility of the quality concept and by illustrating the workers' roles in the quality improvement effort. Juran also places emphasis on the need for organizations to provide knowledge and information to workers on cause and effect relationships such as how one's work affects customers.

2.3.6.3. Obtaining Top Management Leadership and Commitment

Management commitment and support must begin with building a structure within the organization that will create a total quality organization (Persico, 1989). Persico further states that top management must understand the need for improvement and take the active role. Crosby (1979) states in obtaining top management commitment the need for quality improvement must be discussed with emphasis on the need for defect prevention. Movies, visual aids, and other material may be used in accomplishing this goal.

Deming (1986) states the aim of leadership to improve the performance of man and machine, to improve quality, to increase output, and, simultaneously, to bring pride of workmanship to people. Deming further states the three responsibilities of leaders are to improve the system; to make it possible on a continuing basis for everybody to do a better job with greater satisfaction; and lastly, to accomplish greater consistency of performance within the system, so that apparent differences between people continually diminish.

2.3.6.4. Planning Strategically for Quality

Feigenbaum (1983) defines planning as thinking out in advance the sequence of actions to accomplish a proposed course of action in doing work to accomplish certain objectives. Therefore, Feigenbaum states that planning in a field like quality improvement or quality control must be geared toward delivering satisfactory product quality to the customer at a minimum quality cost. The final output of the planning process for quality is a set of detailed instructions that are used in achieving the prescribed courses of action needed in meeting the quality objectives of the organization.

Adopting a planning methodology can assist organizations in strategically planning for quality. A few organizations are able to include quality planning as a part of their business plans. It is easier for organizations who are new at quality planning to issue a separate strategic quality plan not included in the business plan. Organizational missions,

visions, goals, and objectives are helpful in assisting and directing the organization in formulating a strategic plan for quality improvement.

2.3.6.5. Establishing an Infrastructure

Organizations may need to change their structural approach before mobilizing for quality improvement. The need to provide formal structures for quality improvement work applies to all people at all levels, including management. The use of the existing organization as the primary structure for quality improvement (ad hoc structures are used for complex, cross-functional problems) makes managing quality part of a manager's or supervisor's responsibility (Harwood and Pieters, 1990). Therefore, each manager and his or her staff must meet often to deal with quality improvement using the existing structure. Harwood and Pieters (1990) further state that creating special structures for managing quality is dangerous because it violates the existing one and lets those outside of it off the hook.

Bhote (1989, p. 370) states that Motorola introduced an infrastructure which supported their TQM objective of total customer satisfaction. The building of this infrastructure involved:

1. Reducing the number of managerial and supervisory layers and increasing spans of control.
2. Organizing to a more manageable size to build teamwork and give employees a greater sense of ownership.
3. Integrating related functions to break down artificial department walls and overcome the "vertical silo" syndrome.
4. Changing the organization's traditional role of policing to that of coaching.

5. Enhancing every standard, expectation, process, and system in a few businesses that have now become the model for others to follow.
6. Making quality the first order of attention in meeting agenda reviews, plans, compensation, and rewards.

Reasons for working within the established infrastructure is important for two reasons: everyone makes errors; therefore, everyone can contribute to reducing errors; and excluding some people or allowing participation to be voluntary negates the idea that all employees are responsible for quality, even though quality is everyone's job responsibility (Harwood and Pieters, 1990).

2.3.6.6. Encouraging Employee Participation and Involvement

Many organizations use many initiatives to encourage employee participation and involvement in quality improvement efforts. Feigenbaum (1983, pp. 208-209) defines 10 principles of employee participation which are very important guidelines for employee involvement programs that contribute to quality commitment in Total Quality Control.

These principles are:

1. Successful employee involvement programs require genuine management involvement.
2. Employee contributions and ideas must receive serious consideration and be placed into operation whenever the recommendations are sound and relevant for the program to have real value.
3. A principal requirement and one of the real tests of effective programs is that they have long term continuity in contributing to plan and organization operations.

4. Involvement programs are as important for office employees as for factory workers.
5. Program organizations must be kept clear and simple.
6. As a corollary to 5, successful involvement programs require very careful initial preparation.
7. Involvement sessions, to be effective, must be purposeful from the point of view of the participants.
8. The substance of the involvement sessions as well as the overall program must be kept fresh, relevant to current plant issues, and up-to-date.
9. The leadership of the involvement sessions should be from and oriented to line operations in the plant and organization to assure direct operating participation rather than only from staff.
10. In achieving customer quality and satisfaction, involvement programs are an important ingredient, but not a substitute for the companywide and plantwide Total Quality Control program's demanding work in marketing, engineering, production, and service actions some of which can provide inputs to involvement program activities and benefit from some of their outputs.

Some participative approaches to employee participation are quality circles, quality of work life, employee quality councils, employee suggestion programs, quality goal setting, team building, to name a few. Job enrichment programs such as work reform, work restructuring, and sociotechnical systems are also used in employee involvement programs. Motivation for employees to participate in quality improvement can be enhanced through reward, recognition, and education and training.

2.3.6.7. Communicating the Quality Improvement Concept

Organizations should communicate the quality improvement concept through a common language and information sharing. Education and training are tools used to communicate the common language used by the organization for quality improvement efforts. Using meetings, quality plans, newsletters, and bulletins are vital means of sharing information about quality improvement efforts. It is also a responsibility of management to communicate and share information about their quality improvement efforts with customers and suppliers so they can understand what the organization is doing to produce quality goods and services.

2.3.6.8. Identifying Areas of Improvement

Organizations can identify areas within the organization in need of quality improvement through the use of surveys, audits, problem analysis and solving techniques, competitive benchmarking, and SPC. Employees can use cost of quality (COQ) and the nominal group technique (NGT) to identify quality improvement areas. Organizations can use surveys, interviews, and audits to identify what the customer wants. Customer complaints can be used to identify areas that need to be targeted for improvement.

2.3.6.9. Providing Employees with Education and Training

Ishikawa (1985) states that quality control begins with education and ends with education. Quality improvement education must be given to everyone within the organization from top management to line workers in order to gain total participation from everyone. Because total quality is a revolution in management, the thought processes of all employees must be changed (Ishikawa 1985). Feigenbaum (1983, p. 201) states:

The development for organization personnel--in all functions and at levels--those attitudes, that knowledge, and those skills in quality which may contribute to organization products at minimum cost consistent with full customer satisfaction.

Feigenbaum (1983, p. 202) further states :

Education in the quality problem is a process that, with varying degrees of effectiveness, has been taking place in industry for many years, in many forms. The successful introduction of total quality control and total quality systems thus must begin with the recognition of an existing fund of quality attitudes, knowledge, and skills. It recognizes that they begin with a regularly functioning, informal learning process which is continually adding to this fund of education through existing formal process of on the job, vestibule, orientation, and classroom training activities in job skills as related to quality.

Before embarking on companywide total quality education, an organization should analyze its present companywide total quality education process, determine its strengths and weaknesses, and then build its total quality education program from its deficits. Deming (1986) states in Point Thirteen that organizations should encourage education and self-improvement for everyone. Deming further states that organizations do not lack a shortage of good people but the shortage that does exist is at a high level of knowledge in every field and this shortage of knowledge can be rectified through education.

There is the basic assumption from professional educators who have studied learning patterns from groups and individuals at all levels is that adult people in industry will learn only the information that they feel they need to know to perform their job well and help them to solve daily problems on their jobs. Feigenbaum (1983) states that the most effective quality training courses are those which are quality problem centered instead of quality theory centered; those courses whose content is designed around specific assistance in helping employees do their quality jobs better; those whose objective is the dissemination of principles and practices for solving basic, down-to-earth quality issues

rather than the dissemination of general theories for quality discussion. Feigenbaum (1983, p. 214) discloses the universal principles in building a quality control training program are as follows:

Principle 1: Quality training programs should be kept down to earth and centered upon real company quality problems. They should focus upon practical, meaningful quality material and case studies.

Principle 2: In developing quality training programs, the quality engineer and training staff should work and consult with the line organization to the fullest extent possible, especially in regard to the scope and kinds of material to be used in the programs.

Principle 3: The quality training programs should be based upon the recognition that the solutions to industrial and quality problems are always changing; consequently, education in quality methods and techniques can never be considered as completed, including education for the educators themselves. Therefore, quality programs should have definite, organized provisions for periodic, brief refresher courses for plant personnel.

Principle 4: The training programs should include and involve as participants all levels of personnel; everyone who is involved in the production process. Since interests and objectives differ widely among organizational levels, individual courses in quality training programs should be tailored to fit everyone's needs.

Deming (1986) states in Point Six the greatest waste in America is failure to use the abilities of people. He also states that money and time spent in training will be ineffective unless inhibitors to good work are removed. Training should ensure that the employee understands his job, the policies of the organization and the customer's (both internal and external) and supplier's needs.

Scherkenbach (1990) states that training can be ineffective if the inhibitors (organization systems) to training are not removed. He further states that training removes the knowledge a person has about a subject but does not remove the barriers to using that knowledge. The following are inhibitors to training mentioned by (Scherkenbach, 1990, pp. 92-94).

1. *It's for my people.* Management need the training the most since improvements in their hands.
2. *It's for manufacturing and not me.* If training is to be successful it must be companywide and demonstrate a broad range of applications even non manufacturing jobs.
3. *Our problems are different.* These methods and philosophies don't apply to us; however, all processes are generically the same and Deming's philosophy applies to all of them.
4. *We rely on our experience.* Experience teaches us nothing. If experience taught us something why are most organizations in such a mess.
5. *Hope of instant pudding.* Management using short term results as solutions to problems or quick fixes. Continuous improvement is a long term activity which includes companywide change through education and training.
6. *People learn in different ways.* Organizations have to institute training and education programs that meet the needs of the different ways that people learn.

Training should also include training employees about the different tools of quality management such as SPC, failure mode, and effect analysis. Federico (1989) states that since SPC relies on continuous and consistent record keeping by employees on an ongoing

basis, the technique makes workers aware of their contribution to the quality improvement process. The failure mode and effect analysis hypothesizes all possible failures in a given process and estimates the effects each potential effort might have on the final product; therefore showing workers how their particular tasks can make the difference between turning out a superior product and one that is barely acceptable or defective (Federico, 1989).

2.3.6.10. Measuring the Organization's Performance for Improvement

Juran (1989) states that the purpose for measurement is to provide data and information to enable one to make decisions and take appropriate actions. Crosby (1979) implies that organizations must know where they are so they can plot the course where they want to go. Measurement should be used to identify progress or improvement rather than control. Measurement, in most organizations, is used to find nonconformance or the failure to meet specifications and to identify problems. Therefore, measurement should stimulate the action toward the goal of eliminating nonconformance (Perigord, 1987). Perigord further states that the purpose of measurement is to seek evidence of variation from the negotiated specifications and the role of measurement is to identify possible improvements and to indicate where to begin action on failures. Perigord (1987) indicates there are four types of indicators for measurement: quality deficiencies, whose role is the improvement of performance indicators; performance, a management tool that indicates a trend; test charts for attributes (qualitative characteristics), whose purpose is to direct the process being tested toward stability by eliminating erratic causes of problems; and measurements (measurable characteristics).

Crosby (1984) implies that measurement is a normal activity that society is surrounded at all times by it. Pang (1990) documents four lessons on performance

measurement for improvements resulting from interviews and work experience at the VQPC:

1. Measurement requires patience and time and must be tailored for each organizational unit.
2. Measuring customer's responses to products is critical.
3. Organizations need to measure different performance criteria by using various tools.
4. Organizations should emphasize the quality criteria in the individual performance appraisal, and link measurement to the rewards and recognition system.

Consequently, measurement will ultimately lead to improvement of systems within the organization.

2.3.6.11. Recognizing and Rewarding Achievement

Crosby (1979) implies that recognition is showing appreciation to those who participate. Crosby (1979, p. 210) states "people really do not work for money although they do go to work for it, but once the salary has been established their concern is appreciation." A system of reward for quality improvement efforts should evaluate results and give personal recognition to participants based on their contribution to the success of the quality program. Employees and suppliers who contribute to quality improvement efforts should receive positive reinforcements of recognition and rewards as soon as the desired behavior occurs in order to link recognition to behavior.

In contrast, Persico (1989, p. 33) identifies four problems or mistakes organizations make when developing systems for rewarding and recognizing employee contributions. They are as follows:

1. The view that rewards can offset the need or desire for job security. It would seem that employee incentives cannot be a substitute for good labor relations' practices.
2. The assumption that financial recognition is an adequate substitute for employee recognition or other forms of intrinsic needs that employees report. Organizations make the mistake of assuming that giving employees more money will be seen as a satisfactory substitute for praise, recognition, or merely feeling a part of the Organization.
3. Many reward or recognition systems fail to acknowledge normal process variance. Employees are often rewarded for performance or results over which they have little control. Employees see little or no connection between their actual work effort and the results.
4. Most merit systems fail to reward efforts as well as results. If only results are rewarded then innovations and ideas that cannot bring quick results or might not ever bring results will be discouraged. Because many projects in an organization cannot be guaranteed to be successful, only recognizing results will ensure an adequate link between goals of individuals, teams, and the organization.

Perigord (1987) states that organizations should learn to assign values to accomplishments.

2.3.6.12. Utilizing Teamwork

Deming (1986) states that teamwork is needed throughout the company and pairs a worker's strengths with another's weaknesses for everyone to sharpen each other's wits with questions. Deming further states that teams composed of people in design,

engineering, production, and sales could contribute to designs for the future and could accomplish important improvements in product, service, and quality of today, if they could work together without the fear of taking a risk.

Persico (1989, p. 33) identifies benefits organization experience from teamwork which are:

1. Group performance is increased.
2. Poor alternatives or decisions are more likely to be avoided.
3. New ideas are identified.
4. Enthusiasm is generated.
5. Mission and objectives are re-emphasized.

Quality improvement teams' or process improvement teams' main goals are to identify and continuously improve critical process variables that influence key quality indicators which should prevent nonconformances and improve processes (Persico, 1989). Federico (1989) states that the purpose of teams is to identify nonconformance in quality, serve as liaisons between the workforce and management, and collaborate directly with workers to solve problems.

Persico (1989, pp. 33-34) further states the theoretical basis for the process team concept as follows:

1. Ongoing management involvement and leadership are essential for effective performance of work teams. Management must empower teams to provide key resources, select and train personnel, and help identify key processes for improvement efforts.
2. Work teams are sociotechnical systems. A team requires a sound infrastructure to function effectively. This infrastructure is based on an

explicit set of guidelines that provides direction and focus for the completion of all tasks related to the team's mission and purpose. Relationship training, communication skills training, and other human relations training must be based on actual work objectives.

3. A work team needs effective team leadership. The most effective comes from a successful blending of the diverse skill and personalities of all team members.
4. Team members need skills training in process analysis, statistical process control, and unstructured problem solving. Team members should not be expected to produce continuous improvement in processes and products without skills to do so.

Crosby (1984) states that the purpose of the team is to guide the improvement process along. Crosby further implies that members of the team should represent all functions of the organization and team members should be able to clear roadblocks for improvements. All members should have the same educational understanding of the quality improvement process.

Persico (1989, p. 36) states that team training is based on a six step process improvement model that addresses both task and process functions for team effectiveness:

1. Develop and clarify team mission.
2. Establish ground rules for team activities and address the team's norm for decision making.
3. Translate the mission statement into a concrete agenda.
4. Identify roles and responsibilities for team members.

5. Identify the process of quality improvement by the following:

- Identify the customers and their requirements.
- Define the current process to meet their needs.
- Determine the problems in the process.
- Analyze the problems using SPC tools.
- Improve the process.
- Monitor and planning for continuous improvement.

6. Evaluate the group process.

Consequently, I believe if teams are managed correctly, they bring together individuals with expertise and different points of view that are critical to company-wide quality improvement.

2.3.7. Conclusions

Harwood and Pieters (1990, p. 45) suggest if quality improvements efforts are carried out effectively and efficiently within all organizations the resulting outcomes would be:

1. Customers would receive what they ordered without nonconformances, on time, in the right quantities, shipped, and billed as agreed upon. Results should be in hassle-free, long-term partnerships with customers.
2. Suppliers would meet their customers' requirements. Incoming inspections ,inventory levels, and administrative hassles would be reduced.
3. Salespeople would spend their time with customers, understanding their needs and getting orders, instead of acting as schedulers taking the heat for poor quality, late delivery, or paperwork errors.

4. New products and processes would be developed to agreed upon requirements, as scheduled and at lower costs.
5. People would enjoy their work as they become proactive in doing their jobs. They would stop spending large amounts of time responding to crises and dealing with a constant level of recurring nonconformances and errors.

Harwood and Pieters (1990, pp. 46-47) further state that if organizations follow the following prescription to practice the process of total quality management, organizations will make gains in keeping their customers satisfied and happy.

1. Pursue quality improvement because it is a sound business strategy.
2. Manage quality as the organization's other most important tasks are managed.
3. Establish specific management direction and goals for results.
4. Use the existing organizational structure and involve everyone.
5. Use a systematic organizational change process with a self-designed plan.

Consequently, I believe organizations embarking on quality improvement efforts should design an effective framework or plan for managing and implementing the total quality management process.

2.4. Elements that Relate to both Total Quality Management and the Management of Race Ethnicity and Gender Diversity

Based on the body of knowledge about TQM and race/ethnicity and gender diversity management, I concluded there are several elements that relate to both TQM and the management of race/ethnicity and gender diversity . These elements are:

1. Working together, group effectiveness, teamwork, and conflict management and resolution;
2. Employee empowerment, involvement, and participation; and
3. Communication and the sharing of knowledge and information.

The literature on TQM mentions teamwork, employee involvement and participation, and communicating and sharing knowledge and information about the quality improvement concept as vital interventions to the success of the practice of TQM in the organization. I believe these elements are also vital to the inclusion and management of race/ethnicity and gender diverse employees in the organization. However, if organizations practicing TQM are going to manage race/ethnicity and gender diversity effectively, they will have to change their culture and systems to include :

- equal participation within (quality improvement) teams by everyone;
- empowering and involving all employees in the participation in the day-to-day operations, planning, problem solving and decision making processes; and
- communicating and sharing knowledge and information with all employees (this includes the quality concept).

The following sections will give brief descriptions of each of these elements and how the organization can operationalize each in the effective management of race/ethnicity and gender diverse employees while enhancing and improving the practice of TQM.

2.4.1. Working Together (Dealing with Conflict)

TQM requires employees to work effectively in teams to solve problems and improve processes. I believe in order for an organization to have productive and effective work teams, employees have to be able to get along and respect each other. This is where

managing race/ethnicity and gender diversity is important. The management of race/ethnicity and gender diversity requires employees to understand, value, and respect others' physical differences and differences in opinions and ideas.

Working in teams in the TQM environment increases the number of alternatives to solutions in problem solving and decision making as well as increases innovation and creativity to idea generation for improving processes and systems (Crosby, 1984; Deming, 1986; Feigenbaum; 1983; Juran 1988; and Ishikawa 1985). However, before teams can be utilized to their full potential, team members have to work together, respect each other, and resolve conflict among the group or between members. Therefore, I believe organizations will have to create positive group dynamics between different types of employees in order to have productive work teams in the TQM setting. This can be done through involving all teams and team members in team building, communication skills, and conflict management training.

2.4.1.2. Teamwork

Teamwork represents a set of values that encourage listening and responding constructively to views expressed by others, giving others the benefit of the doubt, providing support, and recognizing the interests and achievements of others (Katzenbach and Smith, 1991). Katzenbach and Smith describe a team as "a small number of people with complementary skills who are committed to a common purpose, set of performance goals, and approach for which they hold themselves mutually accountable." Therefore, a team is a group whose performance includes both individual results and the results of what two or more members work on together. Whereas, a work group's performance is based on a function of what its members do individually. The differences between team and work groups are shown in Table 2.11. Teams do more than make group decisions, debate,

discuss, share information, and practice performance standards. They produce work-products such as reports, findings and drawings (Katzenbach and Smith, 1991).

Most successful team purposes are based on the response to a requisition or opportunity presented to them by higher management. The best teams translate their purposes into specific performance goals. When purposes and performance build on each other and are integrated with team commitment, they become a powerful tool for performance. There are several reasons why teams should identify specific performance goals (Katzenbach and Smith, 1991):

- 1. Specific team performance goals help to define a set of work-products that are different both from an company-wide mission and from individual job objectives.

Table 2.11. Differences Between a Working Group and Team (Katzenbach and Smith, 1991)

Working Group	Team
• Strong, clearly focused leader • Individual Accountability • The group's purpose is the same as the broader organizational mission • Individual work-products • Runs efficiently • Measures its effectiveness indirectly by its influence on others (e.g., financial performance of the business) • Discusses, decides, and delegates	• Shared leadership roles • Individual and mutual accountability • Specific team purpose that the team itself delivers • Collective work-products • Encourages open-ended discussion and active problem solving meetings • Measures performance directly by assessing collective work-products • Discusses, decides, and does real work together

2. The specificity of performance objectives facilitates clear communication and constructive conflict within the team.
3. The attainability of specific goals helps teams maintain their focus on getting results.
4. As Outward Bound and other team-building programs illustrate, specific objectives have a leveling effect conducive to team behavior.
5. Specific goals allow a team to achieve small wins as it pursues its broader purpose. These small wins are invaluable to commitment and overcoming the inevitable obstacles that get in the way of a long-term purpose.
6. Performance goals are compelling. They are symbols of accomplishment that motivate and energize.

Therefore, clear performance goals enable a team to be accountable and kept abreast on progress.

An effective team is one whose membership ranges from eight to ten people. However, a team can consist of as many as fifty people but more than likely it will break off into subgroups. Difficulties arise in group cohesiveness and interaction with more people involved in a team. Logistics is also a problem faced by large groups. Included in having the right size team, team members should also have the right mix of skills. Skills requirements fall into three categories (Katzenbach and Smith, 1991):

- Technical or functional expertise;
- Problem-solving and decision making; and
- Interpersonal skills.

Teams may not possess these skills in the beginning, but, as the team evolves, these skills develop in accordance to meeting the performance challenge.

Most teams either recommend things, make or do things, or run things. Teams that recommend things are called task forces, project groups, and audit, quality, or safety groups. Teams that make or do things are people in the front line of manufacturing, development, operations, marketing, sales, service, and value-adding activities in the business. Teams that run things make decisions about day to day operations and long term planning and goals. They consist of managers at the top, division, or functional level.

Building team performance requires (Katzenbach and Smith, 1991):

- Establishment of urgency, demanding performance standards.
- Selecting members for skills and skill potential, not personality.
- Paying particular attention to first meetings and actions.
- Setting and seizing upon a few immediate performance-oriented tasks and goals.
- Challenging the group regularly with fresh facts and information.
- Spending lots of time together.
- Exploiting the power of positive feedback, recognition, and reward.

Consequently following these guidelines will help a team be a high-performance-team.

However, in order for a team to remain successful it should periodically assess itself in the following areas (Huszczo, 1990):

1. *Goals*--Does the team have a clear sense of direction?
2. *Talent*--Does the team have the talent necessary to continuously fulfill its objectives?
3. *Roles*--Does each team recognize each role that he or she plays on the team?
4. *Procedures*--To what extent has the team developed effective and efficient operating procedures?

5. *Interpersonal relations*--Teams need to examine whether members get along with each other. To what extent do they communicate with each other?
6. *Reinforcement*--Effective teams need active reinforcement systems for sustaining teamwork such as expressing appreciation to other team members for contributing to the team.
7. *External relations*--An effective team has constructive external relationships with its broader environment. Its members ask the question is the organization changing in ways that will make it more difficult for us to work effectively as a team?

A systematic team assessment such as this can improve a team's effectiveness. Training plays a key role in teams being effective and successful during their existence.

2.4.1.2. Group Effectiveness

Group effectiveness plays a key role in the success of teams. When I talk about groups in this section I am referring to teams also. Three factors determine group effectiveness. They are task interdependence (how closely group members work together), outcome interdependence (whether, and, how, group performance is rewarded), and potency (members' belief that the group can be effective) (Shea and Guzzo, 1987).

Figure 2.12. shows the model of determinants of work group effectiveness.

Task interdependence is the degree of task interaction among group members. Group members may either work in parallel, having little or no contact with each other, or they may work in sequence, with one or a group of members completing part of a task and then passing it on to another member or a group of members. Group members may interact frequently in order to do their work, as is often the case for task forces, focus groups, or employee involvement teams (Shea and Guzzo, 1987).

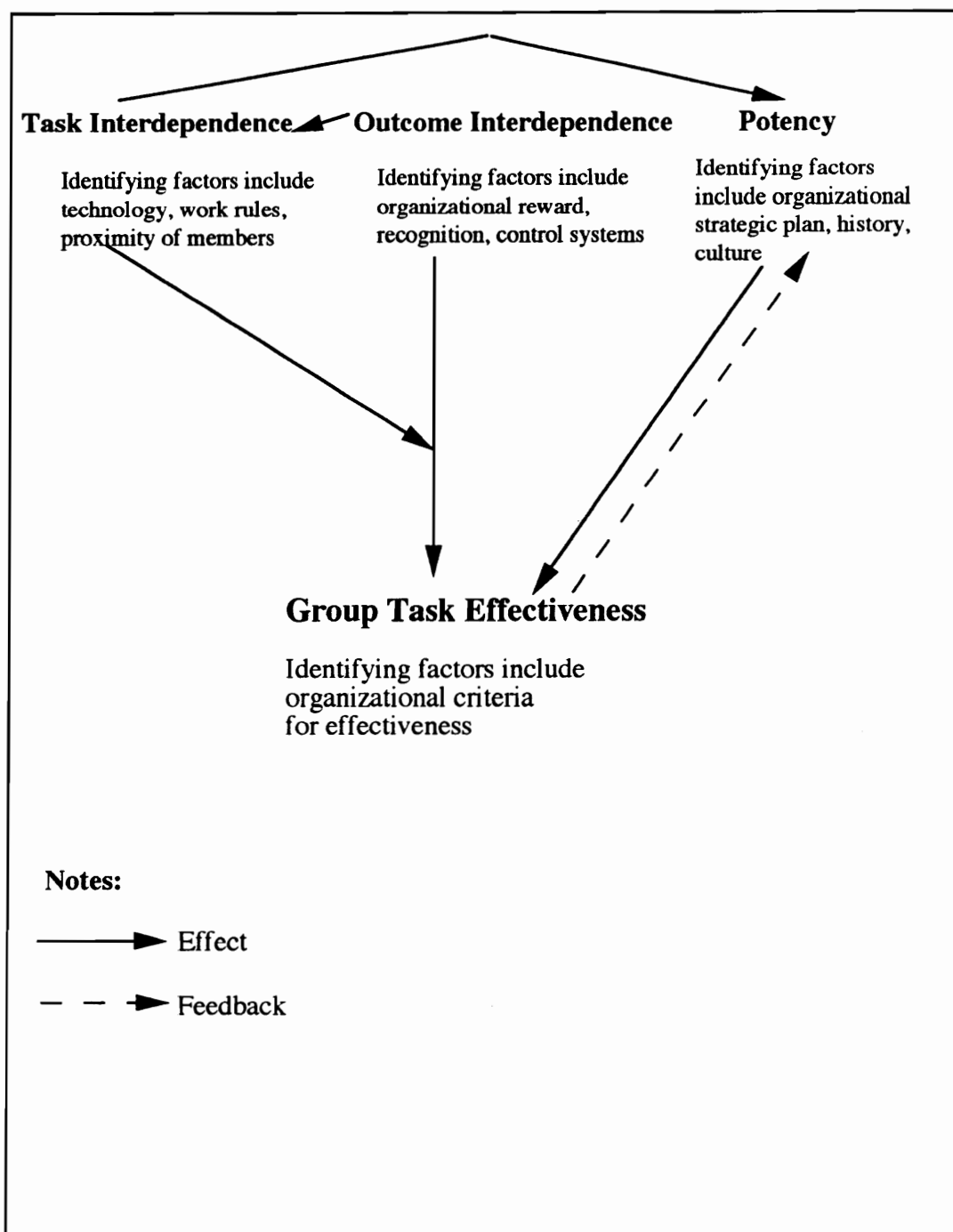


Figure 2.12. A Model of Determinants of Work Group Effectiveness (Shea and Guzzo, 1987)

Outcome interdependence refers to when task accomplishment or achievement by a group provides consequences that are important to all and shared by some or all group members. Some examples of consequences are rewards, recognition, pay or time off. Outcomes are given to the group by others outside of the group like a manager or supervisor.

Potency is the belief by all of the group members that the group can be effective. This is based on the groups' opinions that it has what it needs to be successful such as skill, training, talented people, money, time, access to key members of the organization, and performance feedback. Potency is linked to performance and task interdependency. Greater task interdependency increases members' opportunity to observe and evaluate each other's skills and talents.

How a group handles these three factors determines the effectiveness of group performance. Effective performance cannot be achieved without the outcome interdependence factor. Training and needed resources can increase a group's sense of efficacy, and, consequently, its potency.

2.4.1.3. Conflict Management and Resolution

Conflict can destroy an organization. It can build barriers between co-workers, leading to poor performance and resignations. I believe conflict can be reduced in the work environment if an atmosphere is created that empowers individuals to respect each other and work together. This, in turn, will lead to increased productivity and performance. However, conflict doesn't always have to be negative. It can cause people to see things differently, even in a more positive light if they are resolved correctly.

An objective in resolving conflict should be the creation of an environment where employees can find a common ground. The following is a strategy for proactive conflict resolution (Firth, 1991):

- *Vision*--The creation and fostering of a vision toward which everyone can work. When clearly articulated the vision should translate into everyday actions of each employee.
- *Goals*--They are the short term achievements of the organization. They are simple and specific and translate into the everyday activities of the work environment.
- *Communication*--A system of open communication should be created in your organization. This means employees should communicate openly and honestly with each other and with management. Employees should feel free to come to management with a problem or suggestion.
- *Leadership*--Management should impact the lives of others with good actions. When employees feel good about what they see their leaders do and say it lessens perceived negativities about their working environment.
- *Education and training*--Employees should know their roles and the roles of others who work with them. Sometimes conflict arises when employees feel that another is not accomplishing his or her task or not partaking in his or share of responsibilities. The better educated the employees are about the organization's procedures and policies, the better chance there is of avoiding conflict.
- *Keying to morale*--Management should observe how employees react to circumstances. Are employees comfortable with spending time away from the office with each other?
- *Feedback*--Employees need feedback from management about how they are performing their work, both positively and negatively. When giving employees

negative feedback, tell them things they have been doing well, and tell them what they need to do to improve.

In handling conflict between employees, I believe the manager is the mediator. The manager should confront each employee separately to hear his or her side of the story and then together on neutral turf. Managers should not bully employees to get them to behave, but let them talk the problem out and come up with a solution. If employees cannot work out their problems, then the manager should tell them to wipe the slate clean, start over, and forget the incident. If parties still cannot get along, one or both may need to be relocated to different departments. There are several ways to handle conflict within an organization (Swartz, 1992):

1. Have an employee assistance program.
2. Help employees recognize they share a common goal to make the organization successful.
3. Teach employees that their contribution to the organization is more important than their personal status.
4. Instill openness between co-workers without asking them to confide too much.
5. Distribute tips for handling conflicts.
6. Organize a workshop on conflict resolution.

Conflicts can be made constructive when based on competitiveness or cooperative goals. In competition, employees perceive their goals as being negatively related. This negative relationship is based on the perception that one person's success makes it less likely that others will succeed. Cooperative goals are those where employees' goals are positively related and one person's success helps others to be successful. The key to managing this type of conflict is understanding that behaviors and actions, not goals and

aspirations, are incompatible (Tjosvold, 1988). There are three different outcomes to conflicts based on competitiveness and cooperative goals: cooperative approach, competitive approach, and avoidance approach (See Figure 2.13.).

The cooperative approach requires parties to work out conflict together in cooperation. This involves considering the source of conflict a mutual one between parties; thereby, holding everyone responsible and seeking a mutual advantageous solution.

The competitive approach to conflict may require a powerful source to help resolve the conflict since parties are in disagreement and want to win. This type of conflict generates ill will between parties, leaving them to believe they will not be able to solve problems together in the future.

The avoidance approach to conflict involves parties assuming that others agree with them while seeing little reason to explore and understand other's interests and opinions (Tjosvold, 1988). This type of approach to conflict results in deficient solutions that only mirror the needs of one side.

I believe that in a participative management environment, everyone shares the same goals for the organization and everyone is involved in helping the organization achieve those goals. In this type of environment, employees have cooperative goals. Therefore, the use of cooperative conflict management contributes to the participative management style that emphasizes teamwork, effective problem solving and decision making, innovation, and the empowerment of employees.

2.4.2. Employee Empowerment, Participation, and Involvement

The effective practice of TQM empowers and involves employees participation in the problem solving and decision making processes. In some organizations this empowerment and participation includes the organization's day-to-day operations and departmental planning processes.

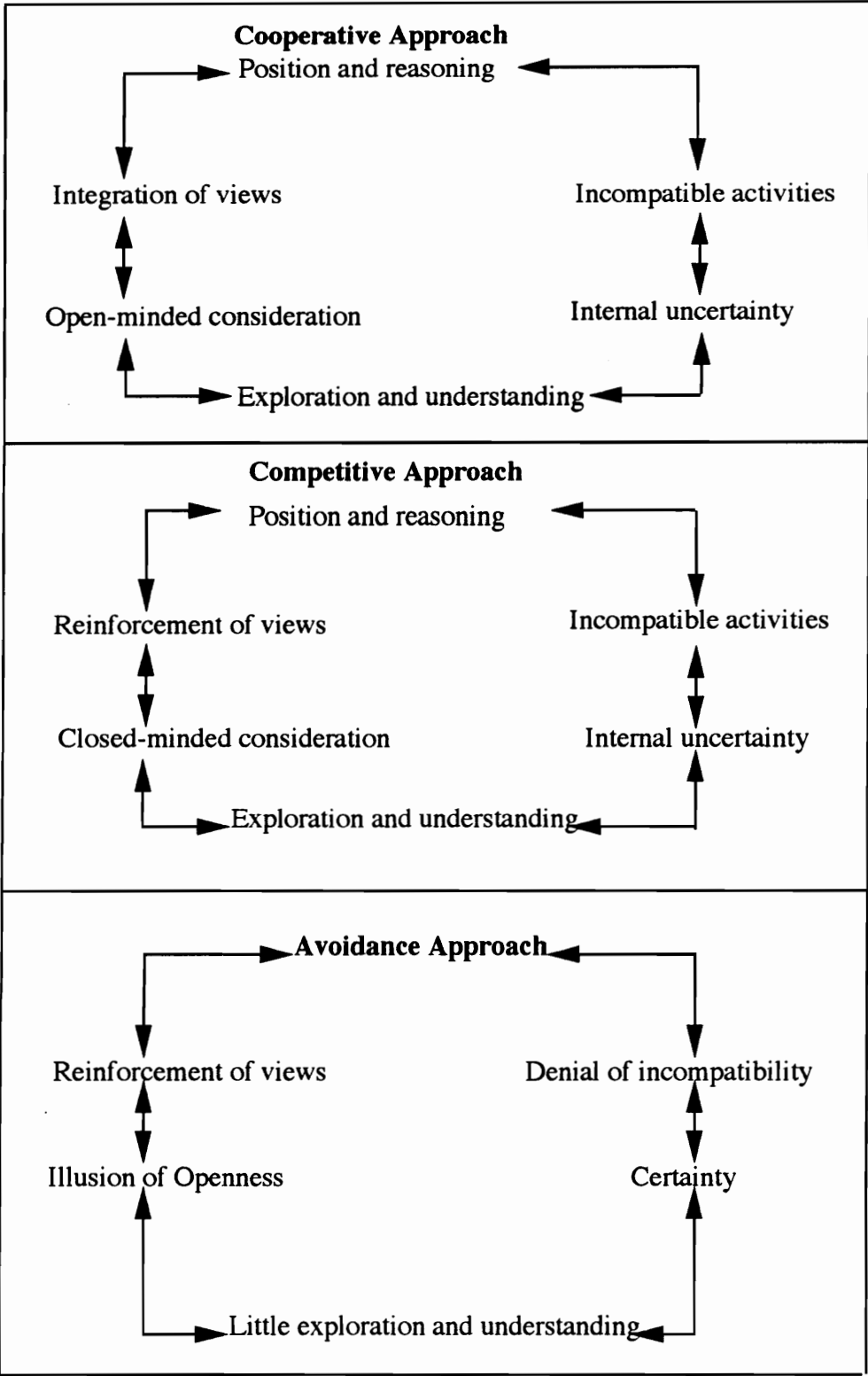


Figure 2.13. Dynamics and Outcomes of Conflict
(Tjosvold, 1988)

However, I feel in order for participative management to be effective, empowerment and employee involvement in the organization have to include all employees. This means race/ethnicity and gender diverse employees also have to be a part of this process. Participative management cannot be effective unless all members of the workforce are empowered to contribute to the success of the organization. Therefore, tapping the full potential of all employees leads to this empowerment. Employee involvement, empowerment, and participation increases employee commitment, ownership, and accountability for the success of the organization.

2.4.2.1 Employee Empowerment

The two reasons why empowerment has become a vital issue in industry today are economic and psychological (Kizilos, 1990). Due to global competition, American organizations need to respond quickly to market forces. Job security has also diminished because of corporate mergers, restructuring, and acquisitions. Therefore, employees are pressured to contribute to the success of the organization to improve the bottom line or perish. Empowerment is a way for organizations to improve their competitiveness in the global marketplace.

Shannon (1991) breaks down the definition of empowerment into parts.

Empowerment :

- is the function of two variables: potential and opportunity;
- is the process of people working together to co-create quality of worklife and work output; and
- touches us at our core, allowing us to co-create something we personally believe in.

The first variable of empowerment potential means employees having the ability to choose certain empowering behaviors in their daily routine. There are five potentials: 1) being positive; 2) being proactive; 3) being participative; 4) being productive; and 5) being a pioneer (Shannon, 1991). Potential is employees seeing themselves as a force for change and improvement and behaving accordingly (Block, 1989).

The second variable of empowerment is opportunity. Five opportunities have to occur before empowerment can take place (Shannon, 1991):

1. *Talk with employees.* Communicate and listen. Encourage two-way, honest, open, frequent communication. The more informed employees are, the more secure and motivated they will be.
2. *Train employees.* An empowering culture is built on the bedrock of continuing education in every form imaginable.
3. *Team employees.* Teams promote cooperation and raise the concept to a higher level. Teams make it possible for people to participate in decision making and implementation that directly affects them. Teams help all members of the organization feel responsible for co-creating a workplace they can believe in and thrive in.
4. *Trust employees.* Believe in the process of co-creating. It is a very powerful organizational motivator. Support team decisions even if they aren't the outcomes you had in mind. Trust teams with information and allow them to fail. Encourage a team approach to every problem-solving effort.
5. *Thank employees.* Find people doing things right. Recognize efforts as well as results by finding ways to frequently and creatively say thank you.

Empowerment requires employees to take ownership and responsibility for their jobs and job performance. It is getting employees to help themselves. In order for

empowerment to take root and thrive, organizations must encourage these conditions (Dobbs, 1993):

- *Participation*--People must be actively and willingly engaged in their jobs. They must care about improving their daily work processes and work relationships. Willingness to participate can't be mandated, it must come from the desire to contribute and to make a difference.
- *Innovation*--Empowerment can't exist in an organization that expects employees to do their jobs the way they've always done them. Organizations need to give employees at all levels permission to innovate. The most valuable innovations come from the workers in the "trenches"--the workers who have direct contact with an organization's manufacturing processes or who deliver service to customers.
- *Access to information*--In traditional organizations, the senior managers decide who receives what kind of information and how much. In organizations in which employees are empowered, people at every level make decisions about what kind of information they need for performing their jobs.
- *Accountability*--In an empowered environment, employees should be accountable for their actions. Employees should be held accountable for
1) behaving responsibly toward others; 2) operating with a positive approach;
3) producing desired and agreed-upon results; 4) being responsible for their own credibility and for keeping their word; and 5) giving their best.

These four conditions to empowerment cannot take place without the support of leadership. The leadership has to be compassionate, open, receptive to new ideas, honest, caring, and have respect for others in order for empowerment to thrive in the organization.

To empower employees, organizations have to change their management system and the culture of the organization. Also, management has to teach employees techniques to enhance their communication and influencing skills (Kizilos, 1990). Kizilos further states that education certainly has some power to change behavior, but altering people's orientation toward empowerment--turning a bureaucratic goldbricker into a risk-seeking, initiative-taking, problem-solving go-getter-- is no simple training task.

Empowerment is a cultural change that cannot be taught. It is up to management to introduce techniques and methods to employees that introduce knowledge and skills to perform effectively in situations where they have the autonomy and control. Therefore, management needs to give workers a sense of efficacy, to make them feel that they have the knowledge and skills to control things in the organization, and to use whatever autonomy they have to perform at high levels (Kizilos, 1990). In addition to empowerment, organizations are also using employee involvement and participative management as a means of sharing the responsibilities of the organization with employees.

2.4.2.2. Employee Involvement and Participative Management

Employee involvement systems have been referred to by other terms, such as participative management and quality of work life. There are several types of employee involvement systems that are in use in American organizations today. They are employee participation groups, survey feedback, quality circles, profit sharing, gain sharing, job design, self management teams, and quality of work life programs. The objectives of employee involvement systems are to increase participation by employees in decision making, stimulate workers by making their jobs more interesting, giving them more control over their activities, and providing them with more of a direct stake in their organization's fortunes (Dulworth, Landen, and Usilaner, 1990). However, the purpose of organizations

implementing employee involvement systems is to increase productivity, improve quality, and increase employee and organizational performance.

Many organizational researchers view participative management and employee involvement as the same concept. I am inclined to agree. Participative management involves employees in the management process. Whereas, employee involvement allows employees to participate in the management process. Therefore, these terms are synonymous.

All organizations do not involve employees at the same level in the management process. Some organizations involve employees fully in the management process and some partially. Figure 2.14. presents a simple hierarchy based on the different levels of involvement. There are several different levels of employee involvement in the management process (Richardson, 1985). They are:

Level 1. Management makes a major effort to improve communications and attitudes, but it still views employees as relatively passive.

Level 2. Management seeks to actively involve employees in productivity and cost management.

Level 3. Management views employees as partners in the enterprise and rewards employee efforts through gain-sharing and profit-sharing schemes.

Motivation plays a complex role in the participative management process. Motivation is defined as a result of people's beliefs about the consequences of their actions (Lawler, 1973; Pinder 1984). Lawler (1987, p. 28) states that "people are motivated to perform an action when they perceive that consequences of the action are favorable to them; that is, when they perceive that they will achieve goals or outcomes that they desire." People have both extrinsic and intrinsic needs (Maslow, 1954). Extrinsic needs are those that can be satisfied by rewards such as pay and recognition by the boss and intrinsic needs

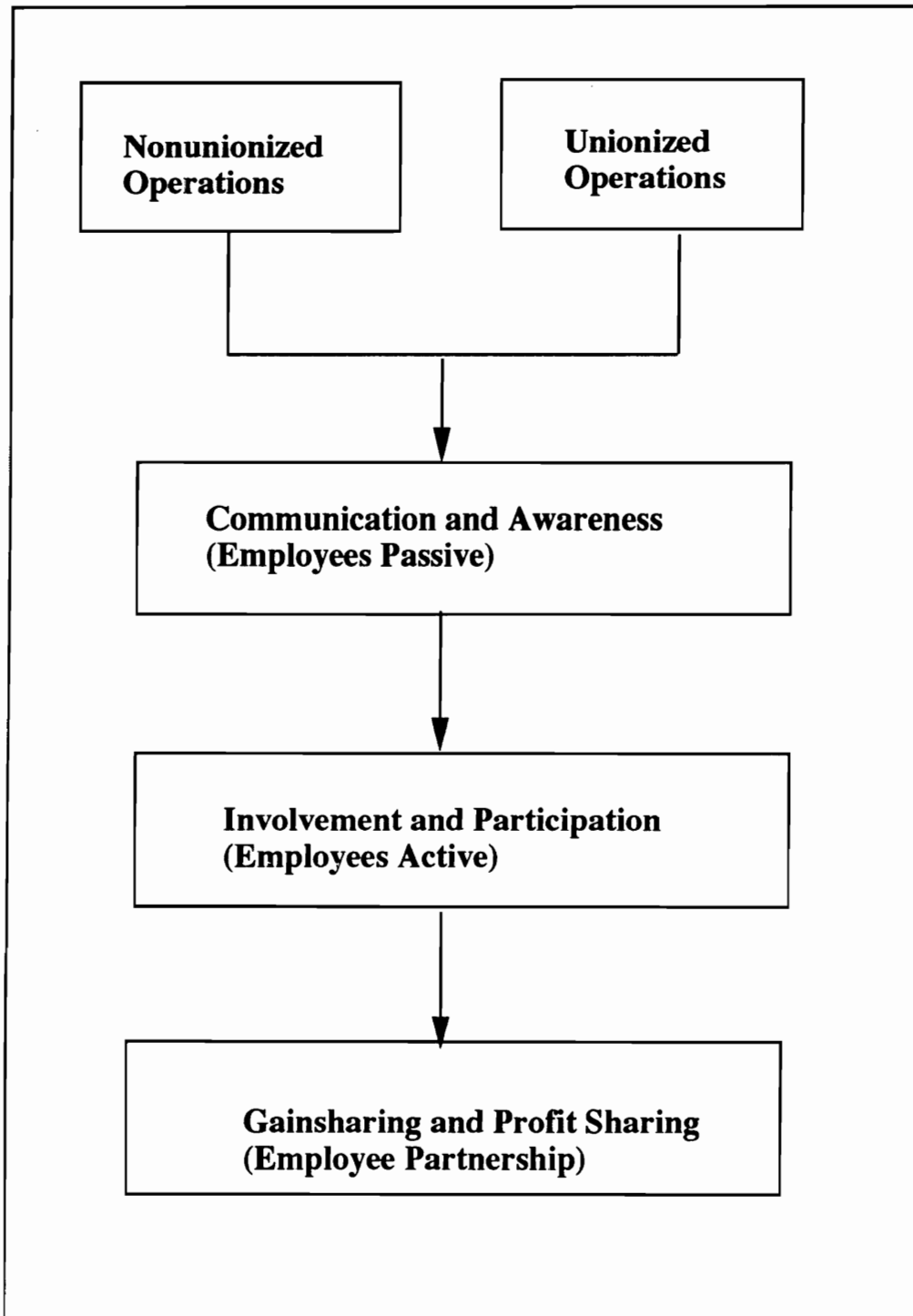


**Figure 2.14. Hierarchy of Employee Centered Programs
(Richardson, 1985)**

can be satisfied by internal rewards such as feelings of personal growth, accomplishment, and self-fulfillment. Intrinsic rewards have to be given by people to themselves and extrinsic rewards by the organization.

Unless employees perceive that the behavior or performance that leads to a valued reward is achievable, they will not be motivated to perform (Lawler, 1987). Lawler further states that employees are motivated to perform on the job if these three conditions exist:

1. Rewards are perceived to be tied to performance;
2. The rewards that are tied to performance are valued; and
3. Effective performance is perceived to be achievable.

The most direct relationship between participation and motivation occurs when people participate in establishing their goals and commit themselves to achieving them. Participation must concern an important work performance issue in order for it to affect motivation (Lawler, 1987). Participation has an impact on motivation through job design and enrichment and financial rewards such as participation in gainsharing programs.

Lawler (1987) states that there are several potential advantages to a participative approach to management such as higher motivation, satisfaction, better decision quality, and less resistance to change. These advantages can produce results that have an important impact on organizational performance. The positive effects produced by participative management programs are (Lawler, 1987):

- *Work Methods and Procedures.* Less resistance to new methods may result and the problem-solving process may produce innovations.
- *Attraction and Retention of Employees.* Improvement results from increased satisfaction and involvement.

- *Staffing Flexibility.* Increased flexibility results from cross training and teamwork.
- *Service and Product Quality.* Higher motivation and better methods increase quality.
- *Rate of Output.* Higher motivation and better methods increase the rate of output.
- *Staff Support Level.* More "self-management" and broader skills reduce the need for supervision.
- *Grievances.* Better communication and an improved union-management relationship reduce the number of grievances.
- *Decision-Making Quality.* Better input and decision-making processes improve the quality of decisions.
- *Skill Development.* Problem-solving as well as technical skills are developed.

What follows is the name and a brief description of the most used types of participative management programs in the US.

- *Quality Circles:* Structured type of employee involvement groups in which volunteers from a particular work area meet regularly to identify and suggest improvements to work-related problems. The goals of quality circles are to improve productivity and quality. There is no direct reward for circle activity, and group problem solving is provided. The group's only power is to suggest changes to management.
- *Union-Management Quality of Work Life (QWL) Committees:* Joint union-management committees usually exist at multiple organizational levels alongside the established union and management relationships and collective

bargaining committees. QWL committees are prohibited from directly addressing contractual issues such as pay and are charged with developing changes that improve both organizational performance and employee quality of worklife.

- *Job Design:* Design of work that is intended to increase worker performance and job satisfaction by increasing skill variety, autonomy, significance and identification of task, and performance feedback.
- *Survey Feedback:* Use of employee attitude results, not simply as an employee opinion poll, but rather as part of a larger problem-solving process in which survey data are used to encourage, structure, and measure the effectiveness of employee participation.
- *Self-Managing Work teams:* Also called autonomous work groups or simple work teams. The work group is responsible for a whole product or service and makes decisions about task assignments and work methods. The team may be responsible for its own support services, such as maintenance, purchasing, and quality control, and may perform certain personnel functions, such as hiring and firing team members and determining pay increases (Dulworkth, Landen, and Usilaner, 1990).
- *Gainsharing:* It is the idea of paying a bonus to employees based on improvements in the operating results of an organization. Many different formulas and plans exist for calculating payouts based on improvements in organizational performance. The formulas for gainsharing are tied to the management philosophy and the participative management effort. The Scanlon Plan, a type of gainsharing program, moves financial information and rewards for organizational performance to the lowest levels of the organization (Lawler, 1987).

Through the use of many of the participative management programs, organizations have been able to involve everyone in the workforce in the management process. However, I believe for participative management to be successful in organizations, management has to be committed and willing to share power and information with everyone in the workforce.

2.4.3. Communication (Sharing Information)

I believe it is important that there is an open line of communication between employees and management. Open communication builds trust between employees and management. Trust is very important if organizations are depending on employees to contribute 100% to the success of the organization.

In most organizations today there is a communication block between management and employees. Management is not communicating with supervisors who are in turn not communicating with employees. Therefore, employees do not communicate with supervisors who do not communicate with management. As a result, there is a downward and an upward communication block. Young and Post (1991) state there are eight factors that determine the effectiveness of employee communication.

1. The chief executive as communications champion.
2. The match between words and actions.
3. Commitment to two-way communication.
4. Emphasis on face-to-face communication.
5. Shared responsibility for employee communications.
6. Communicating bad news as well as good news.
7. Knowing customers, clients, and audiences.
8. The employee communication strategy.

Zaremba (1989) states there are other elements necessary for effective organizational communication such as:

- Consider and use various methods of sending information in order to facilitate accurate receipt;
- Cultivate and maintain viable networks that permit the flow of organizational information;
- Recognize the importance of nonverbal factors in determining communication success;
- Be capable of making presentations consistent with specific managerial needs;
- Be capable of interacting with employees on a comfortable, one-to-one level; and
- Intelligently participate in and manage conferences and meetings consistent with specific managerial needs.

Organizations need to take proactive steps to decrease the risk of communication breakdown. Management must identify the type of messages employees need and respect as intelligent and effective means for transferring information. Managers need to develop their speaking, writing, and listening skills to fulfill their obligations in presentation, conference, and interpersonal context (Zaremba, 1989). In essence, I believe management needs to recognize the importance of effective management communications in the creation of an environment where employees want to work and see work as a fulfilling activity.

2.5. Different Types of Quality Awards

There are several Quality Awards that American organizations can apply for. There's the Deming Application Prize, the President's Award and Quality Improvement Prototype Award, the IIE Award for Excellence in Productivity Improvement, the George M. Low Trophy--NASA's Quality and Excellence Award, the Malcolm Baldrige National

Quality Award, and the Senate Productivity and Quality Award and Award for Continuing Excellence, to name a few. Organizations who feel they have achieved excellence in their quality process can apply for these awards, if they are eligible. Quality Awards are positive incentives to encourage organizations to improve their quality efforts as well as their overall organizational performance. Organizations who win these Quality Awards receive public recognition for being one of the best in their sector in the practice of quality and productivity management and in achieving continuing organizational performance.

For this research, the organizations who have exemplified excellence in quality management have won either the Malcolm Baldrige Award or the Senate Productivity and Quality Award and the Award for Continuing Excellence. These awards will be described and compared to each other in the following sections.

2.5.1. What is the Malcolm Baldrige Award

Public Law 100-107 created the Malcolm Baldrige National Quality Award; it was signed into law on August 20, 1987. Responsibility for the award was designated by legislature to the US Department of Commerce. The responsibility for the creation and the management of the award program with collaboration and financial support from the private sector, was assigned to the National Institute of Standards and Technology (NIST), an agency of the Department of Commerce's Technology Administration. The Malcolm Baldrige National Quality Award Foundation was created to foster a strong partnership between private sector and government and to raise the funds necessary to support the program. An "Award Administrator" assists the NIST in the application review process, preparation of award documents, publicity, the award ceremony, and information transfer activities.

There are three categories of eligibility:

- Manufacturing companies
- Service companies
- Small businesses (not more than 500 full-time employees).

The limit is two awards per category each year. For-profit businesses located in the US or its territories may apply for the award. All US companies are eligible to apply. There are some minor eligibility restrictions to guarantee fairness and consistency in definition. Privately or publicly owned, domestic or foreign-owned, joint ventures, incorporated firms, sole proprietorships, partnerships, and holding companies may apply. Local, state, and national government agencies; not-for-profit organizations; trade associations; and professional societies are not eligible.

There are seven examination categories (which will be discussed in detail in Section 2.5.1.1.) denoting quality management used in application evaluations (See Table 2.11.). The quantitative data furnished in the application represents the emphasis placed on quality achievement and quality improvements. The seven categories are:

1. Leadership
2. Information and analysis
3. Strategic quality planning
4. Human resource utilization
5. Quality assurance of products and services
6. Quality results
7. Customer satisfaction

**Table 2.11. Examination Categories for the Malcolm Baldrige Award
(Bemowski, 1992)**

Examination Categories/Items	Point Values
1.0 Leadership	90
1.1 Senior Executive Leadership	45
1.2 Management for Quality	25
1.3 Public Responsibility	20
2.0 Information and Analysis	80
2.1 Scope and Management for Quality and Performance Data and Information	15
2.2 Competitive Comparisons and Benchmarks	25
2.3 Analysis and Uses of Organization-Level Data	40
3.0 Strategic Quality Planning	60
3.1 Strategic Quality and Organization Performance Planning Process	35
3.2 Quality Performance Plans	25
4.0 Human Resource Development and Management	150
4.1 Human Resource Management	20
4.2 Employee Involvement	40
4.3 Employee Education and Training	40
4.4 Employee Performance and Recognition	25
4.5 Employee Well-Being and Morale	25
5.0 Management of Process Quality	140
5.1 Design and Introduction of Quality Products and Services	40
5.2 Process Management--Product and Service Production and Delivery Processes	35
5.3 Process Management--Business Processes and Support Services	30
5.4 Supplier Quality	20
5.5 Quality Assessment	15
6.0 Quality and Operational Results	180
6.1 Product and Service Quality Results	75
6.2 Organization Operational Results	45
6.3 Business Process and Support Service Results	25
6.4 Supplier Quality Results	35
7.0 Customer Focus and Satisfaction	300
7.1 Customer Relationship Management	65
7.2 Commitment to Customers	15
7.3 Customer Satisfaction Determination	35
7.4 Customer Satisfaction Results	75
7.5 Customer Satisfaction Comparison	75
7.6 Future Requirements and Expectations of Customers	35

TOTAL POINTS

1000

The Award strives to invite each organization to build a quality improvement program which is responsive to its specific needs and culture.

In the evaluation process of applications, each written application is evaluated using a challenging four stage review by members of the Board of Examiners. Based on the four-stage review, high scoring applicants are selected for site visits. Based on the applicant site visits, a panel of judges chooses the award recipients. A written feedback summary of areas of strength and those needing improvement in quality management are provided to each applicant. The Award strives to incite each organization to build a quality improvement program which is responsive to its specific needs and culture.

The award ceremony is held in November and the award is presented by the President of the United States or the Secretary of Commerce. A medal enclosed in a crystal case and bearing the inscriptions, "Malcolm Baldrige National Quality," and "The Quest for Excellence" is given to each award recipient. This background information about the Malcolm Baldrige Award was provided in the 1991 Quality Award issue of Quality and Productivity Management.

2.5.1.1. Malcolm Baldrige Award Criteria

Many organizations have used the Malcolm Baldrige Award criteria for self-assessment, training, networking, and self-improvement (Bemowski, 1992; Heaphy, 1992). Organizations are using the criteria as a common language to communicate requirements and to acquire information on what other organizations are doing (Bemowski, 1992). After completing the assessment, an organization can then determine what it needs to do to better meet its customer's wants and needs. The award criteria was developed as an assessment strategy while providing a framework for building a world-class company (Heaphy, 1992; Sullivan, 1992). The following paragraphs will outline the criteria and guidelines for the examination process for the Malcolm Baldrige Award.

Leadership. It is not by accident that leadership is the first category in the Award criteria. Only through personal, visible leadership can world-class customer satisfaction be achieved (Sullivan, 1992). Figure 2.15. displays the relationship among the criteria and how senior executive leadership drives the system to meet stated goals. The core values and concepts of the 1992 Malcolm Balrige are embodied in the leadership category. The core values and concepts are (Sullivan, 1992):

- *Leadership.* Senior executives serve as role models. They must be visibly and personally involved in reviewing and recognizing performance.
- *Continuous improvement.* Each process is worth evaluating for improvement. The process improvement cycle of planning, doing, evaluating, and improving requires a leader. Senior executives must develop and review key customer surveys and visits, and achievement of company goals.
- *Full participation.* Involvement, empowerment, and training require top-down support. Senior executives must personally lead the effort toward full participation to ensure that everyone is positively involved. Participating in or teaching training classes, formally seeking skip-level input, promoting teams, and maintaining an open-door policy are examples of encouraging participation.
- *Fast response.* Senior executives must help their company respond quickly. By reducing the cycle time for providing feedback and decisions, senior managers can catalyze action. Senior executives can encourage action by establishing cycle-time reduction as a key initiative and recognizing improvements at all levels.
- *Design quality and prevention.* Senior executives are responsible for establishing a prevention-oriented system. By anticipating problems rather than applying quick fixes, executives lead upstream thinking. Championing early

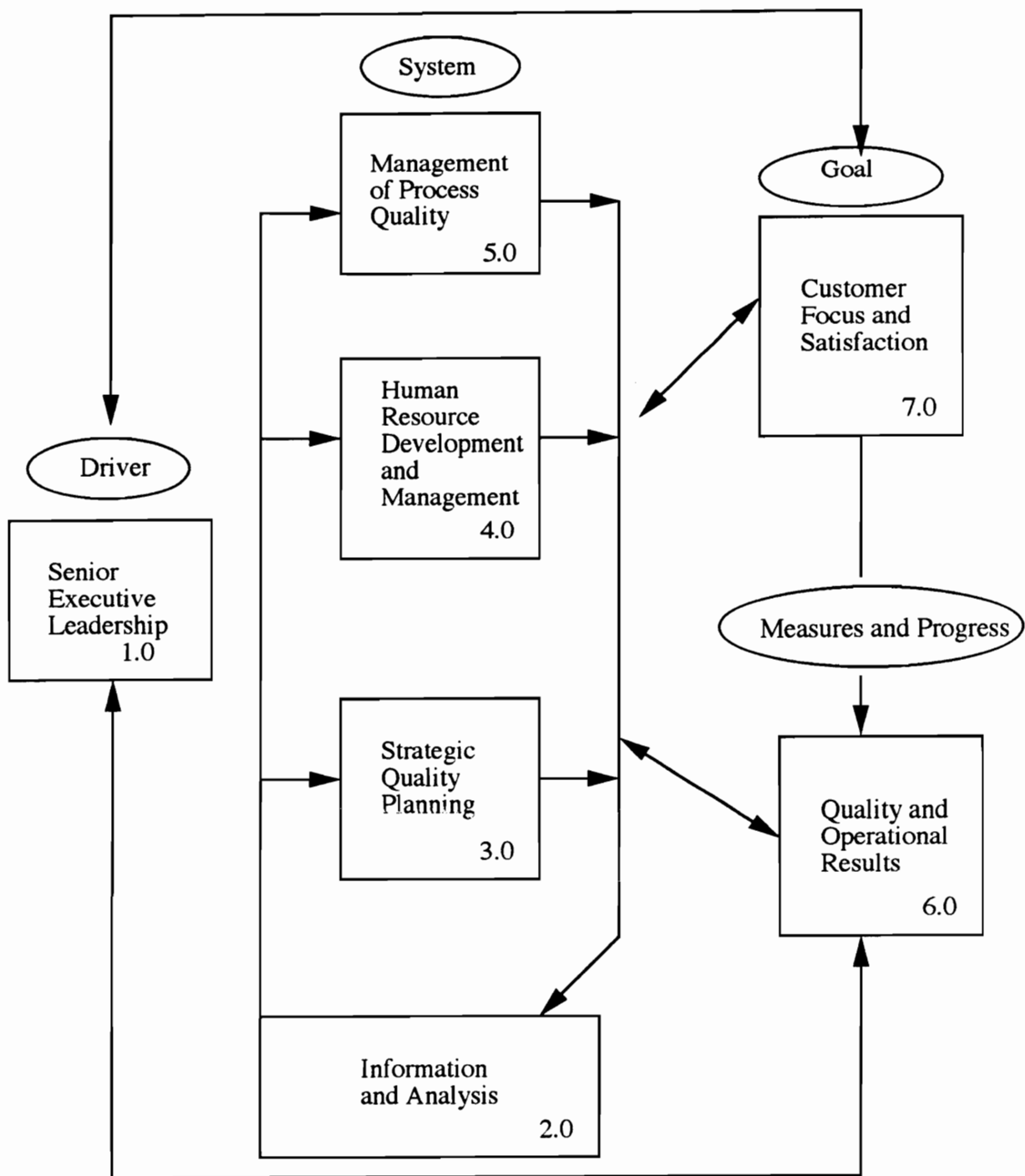


Figure 2.15. Dynamic Relationship between Criteria (Omdahl, 1992)

supplier involvement and using statistical tools such as design of experiments are examples of how senior executives might promote successful design.

- *Long-range outlook.* While the leadership category focuses primarily on day-to-day leadership, thoughtful long-term planning is also an important activity for senior executives. In addition to developing plans and monitoring progress, leaders must openly and consistently support the commitment to long-term goals by refusing to sacrifice long-term progress for short-term gain.
- *Management by fact.* It is essential that senior executives lead with data rather than with intuition. Key indicators and benchmarks must be used to evaluate and improve the organization's structure and processes while supporting the company's plans and goals.
- *Partnership development.* Senior executives must personally lead the process through which their company forms partnerships with customers, employees, suppliers, and the community. Reviewing survey data and establishing regular, personal contact with these groups are commonly used methods.
- *Public responsibility.* Leaders must consider and communicate their company's public responsibilities as they develop business practices and policies. Consortia with education and government bodies, leadership roles in trade and community organizations, and visible support for activities such as business ethics, public health, and environmental issues are example of methods used.

The use of the award's leadership criteria is an excellent means for an organization to evaluate its leadership responsibilities and performance. The Leadership Category examines senior executives' personal leadership and involvement in creating and sustaining

a customer focus and clear visible quality values (Sullivan, 1992). Also examined is how the quality values are integrated into the company's management system and reflected in the manner in which the company addresses its public responsibilities (Sullivan, 1992). From the award criteria for leadership, organizations can improve their leadership process.

Information and Analysis. The six categories can be mapped by tracing the flow of information analysis between them which starts with leadership, extends through results that cause customer satisfaction and customer loyalty, and comes back again to other categories as feedback (See Figure 2.16.) (Omdahl, 1992). This category examines the scope, validity, analysis, management, and use of data and information to drive quality excellence and improve competitive performance (Omdahl, 1992). Omdahl further states that the adequacy of the company's data, information, and analysis system to support improvement of the company's customer focus, products, services, and internal operations is examined.

Strategic Quality Planning. The Baldrige Award, in this category, assesses a company's strategic business plan and implementation process as well as process and product quality measured by customer satisfaction. Total quality, as seen by customers, includes both the strategic aspects of the product service (doing the right thing) and the excellence of execution of that product or service (doing it right the first time) (Marquardt, 1992). The reason for assessing the business plan and implementation process is to eliminate teams working on trivial problems, rather than working on key strategic priorities of the organization. In essence, this category evaluates how well a company has integrated its TQM process with the strategic plan. This category also examines the company's planning and how well key quality requirements are integrated into overall business planning and the company's short- and longer-term plans and how quality and performance requirements are deployed to all work units (Marquardt, 1992).

Human Resource Development and Management. This category, looks at the elements of how an organization develops and then realizes the full potential of its workforce to pursue quality and performance objectives (Leifeld, 1992). Leifeld further states that the award also examines an organization's efforts to build and maintain an environment conducive to full participation quality efforts and personal and organizational growth. After assessing this category, an organization can decide what effects its procedures have on human resources development and whether these procedures need improvement. There are five sections to this category (Leifeld, 1992):

1. *Human resource management.* Aggressive quality and performance goals require strong human resource plans and practices to ensure that employees' maximum potential is utilized. This section focuses on the human resource initiatives that improve education, training, recruitment, involvement, empowerment, and recognition.
2. *Employee involvement.* All employees contribute to meeting a company's quality and performance objectives. This section determines the management practices and specific mechanisms used to promote employee contributions, empowerment, responsibility, and innovation.
3. *Employee education and training.* The process of empowering employees requires organizations to have effective education and training programs. Companies must assess their employees' skills and knowledge and provide education and training to improve them. A company must have a systematic approach to determine the specific skills and training needed for each position within the organization.

4. *Employee performance and recognition.* This section focuses on how an organization recognizes, promotes, compensates, rewards, and provides feedback to employees. The approaches used, how well they are deployed, and the actual performance trend data must be included because the applicant must show that all employees support the company's quality and performance goals.
5. *Employee well-being and morale.* If employees are to make maximum contributions to company goals, it is essential that their health, safety, satisfaction, and ergonomics be considered in quality improvement activities.

If an organization manages these five sections effectively, human resource planning and effectiveness will improve.

Management of Process Quality. This category is used to assess an organization's internal improvement of such areas as design, production, support services, supplier quality, and quality assessment. Figure 2.16. shows the relationship between items listed above. The following paragraph will provide a brief description of each item (Heaphy, 1992):

- Design addresses how to design and introduce quality products and services.
- Production involves controlling and improving the production and delivery process.
- Support services address improving finance, accounting, software services, sales, marketing, information services, purchasing, personnel, legal services, plant and facilities management, basic research and development, secretarial and other administrative services.

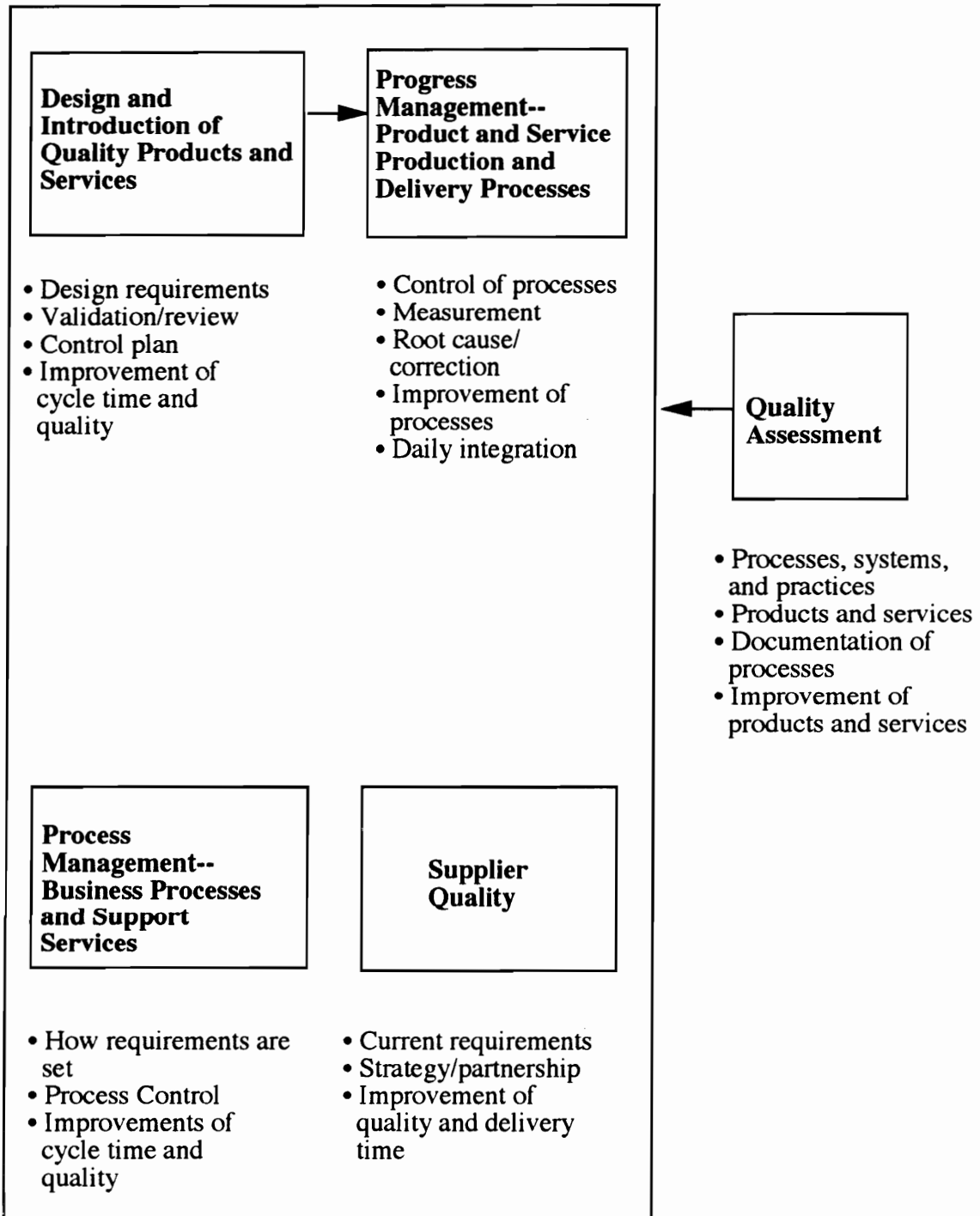


Figure 2.16. Relationships of Items in Category 5
(Heaphy, 1992)

- Supplier quality addresses how quality requirements are communicated and what methods are used to ensure requirements are met by the supplier.
- Quality assessment highlights the assessment of systems, processes, practices, products, and the documentation of processes and practices.

This category examines the systematic processes the company uses to pursue ever-higher quality and company performance and the key elements of process management, including design, management of process quality for all work units and suppliers, systematic quality improvement, and quality assessment (Heaphy, 1992).

Quality and Operational Results. This category addresses how the applicant quantitatively assesses how it is doing in areas that are ultimately important to the customer and identifies trends in those results (Case and Bigelow, 1992). Case and Bigelow further state that this category focuses on all the quality system actions and provides the bridge between quality systems and the customer. This category is achieved by an organization obtaining results on the right measures. Therefore, accurate results help turn data into information and knowledge needed to improve quality. This category examines the company's quality levels and improvement trends in quality, company operational performance, supplier quality, and the current quality and performance level to those of competitors (Case and Bigelow, 1992).

Customer Focus and Satisfaction. This criteria is what total quality management is all about, customer service (Destnick, 1992). Destnick defines customer satisfaction as the degree of happiness a customer experiences with a company's product or service which results from interaction and interrelationships of all employees within that company. The core values and concepts that are critical to customer relationships are (Destnick, 1992):

- *Customer-driven quality.* Quality must be customer driven, meaning that the acceptable level of product or service quality is determined by the customer, not the provider.
- *Leadership.* A company must be a leader in its market. The most successful organization compares itself through competitive benchmarking with industry leaders and world-class organizations in many customer-related areas, such as cycle time and complaints.
- *Continuous Improvement.* This overriding theme must be in all that a company does, internally and externally.
- *Full participation.* All employees must work together to achieve quality and productivity objectives, so that the product or service meets customer requirements. This working relationship must extend throughout a product's or service's life cycle, from initial design to prototype testing to delivery.
- *Fast response.* Responsiveness enables a company to command a premium price for its products or services in the competitive marketplace. One way to exceed customer's expectations of fast response is to have same-day shipment of a product.
- *Long-range outlook.* Over the long haul, successful companies innovate--they anticipate changing, increasingly challenging, customer needs and expectations.

This criteria examines the company's relationship with customers and its knowledge of customer requirements, the key quality factors that determine marketplace competitiveness, and the company's methods for determining customer satisfaction, current trends, levels of satisfaction, and the results relative to competitors.

In the next section, I will describe the Senate Productivity and Quality Award and Award for Continuing Improvement. Lastly, I will compare the Malcolm Baldrige Award to the Senate Productivity and Quality Award.

2.5.2. What is the Senate Productivity and Quality Award

In December, 1982, the United States Senate passed Resolution 503, one year after the airing of the NBC White Paper, "If Japan Can, Why Can't We?" This resolution established the United States Productivity Award (SPA). The intentions of this award were to generate awareness of the need for productivity improvement and to identify organizations at the state level that demonstrate such improvement. All states are eligible to have this award, but few do. Alabama and Nevada's award process is modeled after Virginia.

The Senate Productivity Award (SPA) has recently been changed to The Senate Productivity and Quality Award (SPQA), effective during the 1992 award year. The award process has applied continuous improvement principles from its inception. The award categories increased from two in 1983 to four today. Table 2.12. displays the award categories for the US Senate Productivity and Quality Award. Any public or private sector organization within the Commonwealth of Virginia that is practicing continuous improvement of quality and productivity is eligible to apply for this award. There are no restrictions based on the number of employees, revenue figures, or profit status. Organizations with headquarters outside the state are eligible as long as the subsidiaries or divisions providing the improvement effort for which they want to be recognized are located within Virginia.

Previous recipients of SPQA are expected to speak across the state about their efforts. The SPQA Board is involved in a state-wide video-teleconference during National Quality Month, featuring previous award recipients. The US Senate Productivity and

Quality Award for Virginia Board of Directors is recognized by the Governor's office as Virginia's quality and productivity improvement council. Information pertaining to award activities is not permitted to be used outside of the state.

Table: 2.12. Award Categories for the US Senate Productivity Award for Virginia (Ingold and Johnston, 1992)

Any organization, regardless of size or profit status, practicing continuous improvement quality and productivity in the Commonwealth of Virginia is eligible to apply for the US Senate Productivity Award for Virginia.

Private Sector Manufacturing

Private Sector Service

Public Sector State and Federal Agencies

Public Sector Local Agencies

Three years from the date on which is received a previous Senate Productivity Award, an organization may re apply, and compete only against itself and its previous application for the:

Award for Continuing Excellence

The Virginia Quality and Productivity Center (VQPC) at Virginia Tech is responsible for the coordination and administration of the award. The reviewing of the applications, site visits, selection of award recipients and suggestions for improvements to the process is done by the Board of Directors. VQPC provides the Program Manager and Information Coordinators for the process. The board member organizations and previous recipients provide additional support. The US Senate Productivity and Quality Award is completely self-supporting and receives no federal or state financial support.

The Award for Continuing Excellence was established in 1989. It is Virginia's equivalent to the Malcolm Baldrige Award at the state level. To be eligible to apply for this award, an organization has to be a previous recipient of SPA. To compete for this award, an organization only competes against itself and its previous application. Winners of this award must demonstrate a sustained, continuous improvement effort.

2.5.2.1. Senate Productivity and Quality Award Process

The process of applying is thought by many applicants as being as valuable and important as receiving the award. This process has been used by several organizations as preparation for future application to the Malcolm Baldrige award.

The award criteria has evolved over the years as the board applies the concepts of continuous improvement to the award process. The watchword was productivity and not quality when the award was first introduced. Thus, criteria focused on productivity as an end. The criteria has changed as the understanding of the relationship between productivity and quality has changed. Increased productivity is now viewed as an outcome of improved quality. The criteria for the award are re-evaluated annually to guarantee applicants are being evaluated on the most important and relevant information. Table 2.13. shows the criteria for the 1992 Senate Productivity and Quality Award.

Each category has ordinarily had up to three or four finalists. These finalists are chosen by the board members based on applications and site visits. Finalist organizations are expected to make a presentation at the Award Conference. Medallions are given to winners in each category. Organizations have to meet a certain level of requirements, as measured against the criteria and board assessment during the site visit in order to receive a medallion. Table 2.14. displays the level of recognition for SPQA.

Figure 2.13. 1992 Award Criteria for the US Senate Productivity and Quality Award (Ingold and Johnston, 1992)

1. Maturity of Effort.

When was the organization's improvement effort initiated? How was the effort conceived? Is the organization's approach original, or was an existing approach tailored to fit the organization's needs? How extensive is the effort within the company?

2. Top Management Commitment and Involvement (Leadership)

Describe resource commitments/allocation. How are the quality values of the organization epitomized by the leaders? What are specific examples of the level of commitment and involvement by top management?

3. Employee Involvement, Development and Management of Participation

How is employee involvement encouraged by top management? What types of quality and productivity training opportunities are provided to employees? How are teams used? To what degree are teams empowered? Are employee development plans derived from quality and company performance plans?

4. Recognition/Rewards Systems

How are contributors to and participants in the quality/productivity improvement effort recognized? Is there an established method for sharing gains? Who shares the gains of these efforts?

5. Plan for Continuous Improvement

How do the quality and productivity efforts integrate with the organization's vision, long range plans, business plans, and human resources programs? Are the individuals responsible for implementing these plans involved in developing them? Are targets, or long term goals established? Are self-evaluations made or conducted against other successful efforts? Does the process link plans to action? And how are they implemented?

6. Performance Measurement Process (Use of Information)

What types of measures are in place? How are they linked to the overall improvement effort? How are these measures communicated to the organization? What, specifically, is measured? How do you determine what to measure? What categories of information do you collect? Is the quality of the product or service measured at the customer's and suppliers location? Is quality measured internally from a customer perspective? Is there evidence of statistical thinking? Is competitive benchmarking evident?

7. Results Over Time

What are the specific results from the organization's quality and productivity improvement efforts? (NOTE: Please describe results from both quantitative and qualitative perspectives).

8. Customer/Supplier Involvement

How do you assess supplier quality? How are customers and suppliers involved in your organization's ongoing efforts to improve quality and productivity? Are customers and suppliers recognized for their efforts? Is customer satisfaction measured? How? What use is made of this information?

Table 2.14. Levels of Recognition for the US Senate Productivity and Quality Award (Ingold and Johnston, 1992)

<i>There are three levels of recognition that may be awarded in each of the four categories</i>	
•US Senate Productivity and Quality Award Medallion	Awarded to the outstanding organization in each category (It is not mandatory to have a medallion recipient in each category.)
•US Senate Productivity and Quality Plaque	Awarded up to three finalists in each category.
•US Senate Productivity and Quality Award Certificate of Merit	The number awarded varies each year
US Senate Productivity Award for Continuing Excellence	
<i>There is no limit to the number awarded each year, as applicants only compete against themselves and their previous applications. However, to be eligible to apply, an organization must wait three years from the date they received their Senate Productivity and Quality Award Medallion.</i>	

Feedback is provided to organizations who were not selected for medallions about their application. Feedback is also provided to the applicants for the Award for Continuing Excellence. Applicants who applied for SPQA are invited to participate and ask questions of the Board members who reviewed their application.

Winners of SPQA consider it a responsibility to make other organizations aware of their efforts to improve quality and productivity. Each year quality and productivity initiatives are more sophisticated and impressive, and SPQA will continue to recognize and publicize these efforts of outstanding organizations. Information for this section was

provided by Virginia's Quality and Productivity Award Process and the US Senate Productivity & Quality Award Process Notebook.

2.5.3. Comparison of SPQA to the Malcolm Baldrige

Virginia's Senate Productivity and Quality Award is accessible to any public or private sector organization practicing continuous improvement of quality and productivity within the Commonwealth. Eligibility for the Malcolm Baldrige Award is open to all US companies except for local, state, and national government agencies; not-for-profit organizations; trade associations; and professional societies. Both awards are somewhat similar. The Baldrige Award's examination process is more in depth compared to SPQA. Many winners and finalists of SPQA use this award process as a stepping stone to applying to the Baldrige Award.

One area that I did not see on the Baldrige application that is on SPQA's application form is the maturity of the quality and productivity improvement effort. This area is important because it gives some background and history of the improvement effort in the organization which I think is important for gaining an understanding of the organization's quality process.

SPQA, since its inception, has been providing some form of feedback to all applicants not selected for site visits, all finalists, and to all SPQA and ACE winners. This is a process fairly new to Malcolm Baldrige. It began within the past couple of years.

Both awards are important to American organizations as benchmarks in helping them improve their quality and productivity efforts which will lead to improved organizational performance. If more American industry used their state quality award and/or the Malcolm Baldrige award as internal assessments of their quality and improvement processes, they would begin to get better and become more competitive in the global marketplace.

CHAPTER 3 RESEARCH METHODOLOGY

Leedy (1989, p. 88) defines research methodology as "merely an operational framework within which the facts are placed so that their meaning may be seen more clearly." The research methodology is a process for achieving the research goal or objective. The research method is a technique used to measure, manipulate and control the properties of the phenomena (Brinberg and McGrath, 1985). Yin (1989) states that the research design is an action plan or blue print of the research process. The research design includes collecting, analyzing, and interpreting the research data.

For this research, I compared and contrasted race/ethnicity and gender diversity management in organizations that successfully practice TQM to an organization that is considered one of the best at diversity management. A reason for comparing and contrasting TQM organizations and a diversity management organization was to determine whether both types of organizations are undertaking similar endeavors to manage race/ethnicity and gender diversity. However, if the TQM organizations were undertaking some different endeavors to manage race/ethnicity and gender diversity than the diversity management organization, then I would have to determine if these different endeavors also contribute to the successful practice of TQM and, if so, how? After completing this research, I designed a managing race/ethnicity and gender diversity program for organizations that do not practice TQM and TQM organizations based on data, facts, information, knowledge, past and present experiences acquired during this research, and the knowledge I've gained as a graduate student at Virginia Tech.

This chapter is partitioned into three sections: the type of research I am doing, design choices and issues regarding this research, and the activities that map out the research methodology.

3.1. Type of Research

This dissertation employs the following methodology based on what I have read and learned about research:

- *Type of research is formative evaluation*, which is used to improve a program, intervention, policy, organization, or product. Formative evaluation is research that is used to study the processes and outcomes aimed at solving problems (Patton, 1990);
- *Qualitative research methods*, which consist of these three kinds of data collection techniques: in-depth and open-ended interviews (key informant and focus group); direct observations and document analysis; and content analysis through the use of within and cross case data analysis techniques;
- *Phenomenological inquiry*, using qualitative and naturalistic approaches to inductively and holistically understand the human experience in content specific settings (holistic-inductive paradigm) (Patton, 1990);
- *Naturalistic inquiry*, studying real-world situations naturally without manipulation;
- *Case and field study research method*, an approach to research in which data is directly gathered from individuals and groups in their natural environment;
- *Case study research strategy*, the overall plan used to engage the phenomena of interest in systematic inquiry and the setting within which the research is performed.

3.1.1. Inquiry Paradigm Used

Three qualitative themes emphasizing the holistic-inductive paradigm are used in this research. These three themes are naturalistic inquiry, inductive analysis, and

qualitative data. Patton (1990, p. 40) states that naturalistic inquiry is "studying real-world situations as they unfold naturally; non-manipulative, unobtrusive, and non-controlling;" there is an "openness to whatever emerges" and a "lack of predetermined constraints on outcomes." Guba (1978) defines "naturalistic inquiry" as a "discovery-oriented" approach that minimizes investigator manipulation of the study setting and places no prior constraints on what the outcomes of the research will be. Patton (1990, p. 40) explains that inductive analysis consists of the "immersion in the details and specifics of the data to discover important categories, dimensions, and interrelationships" that "begin by exploring genuinely open questions rather than testing theoretically derived (deductive) hypotheses." Patton (1990, p. 40) further explains that qualitative data consists of "detailed, thick-description," in depth inquiry, and "direct quotations capturing people's personal perspectives and experiences."

The holistic perspective consists of understanding the phenomenon under study as a complex system that is more than the sum of its parts as a system that focuses on complex interdependencies not meaningfully reduced to a few discrete variables and linear, cause-effect relationships (Patton, 1990). "The advantages of qualitative portrayals of holistic settings and impacts is that greater attention can be given to nuance, setting, interdependencies, complexities, idiosyncrasies, and context" (Patton, 1990, p. 51) which will more likely generate new theoretical findings.

3.1.2. Dimensions of This Research

Researchers generally use three dimensions to describe different types of research. The first dimension is the type of research and its purpose. The types of research and their purposes are discussed in Appendix A. The type of research I did for this dissertation is formative evaluation and its purpose is to improve the effectiveness of a program or process. My aim in this research is to improve how organizations manage race/ethnicity

and gender diversity aimed at improving organizational performance. Formative evaluations rely heavily on qualitative methods and the case study strategy (Patton, 1990).

The nature or aim of the research is the second dimension. The nature of the research can be exploratory, explanatory, descriptive, or predictive (See Section 1.6. of Appendix A). The nature of this research is to explore and describe the phenomena. I explored and described how several organizations successfully practice TQM and an organization that is considered one of the best at diversity management manage race/ethnicity and gender diversity. From this information, I developed a program to assist organizations in race/ethnicity and gender diversity management in a TQM environment.

The last classifying dimension of research is whether the research either confirms or builds theory. Research that confirms theory tests it by confirming existing knowledge or theory. Research that builds theory generates new theories through introducing frameworks, hypotheses, concepts, theoretical propositions, and constructs. This research builds theory; it is contributing knowledge to the field. The study of race/ethnicity and gender diversity management, in the context of TQM, is relatively new and therefore lacks significant research. The concepts and theories of each phenomena are fairly contemporary and are still evolving. For these reasons, theory building research/contributing knowledge is suitable for this research area.

3.1.3. Research Method Employed

The research question is the determinant factor in deciding on the research method. Case studies are the preferred research method used when addressing the "why" and "how" research questions that are posed when the investigator has little control over events and when the focus is contemporary phenomenon within some real-life setting (Yin, 1989). "How" research questions were chosen for this research since both phenomena are

contemporary and I had little control over events; therefore, the case study method for conducting this research was used.

"The case study approach to qualitative analysis is a specific way of collecting, organizing, and analyzing data in which the purpose is to gather comprehensive, systematic, and in-depth information about each case of interest" (Patton, 1990, p. 384). Yin (1989, p. 23) defines case study research as an empirical (real-life) inquiry that:

- investigates a contemporary phenomenon within its real-life context; when
- the boundaries between phenomenon and context are not clearly evident; and in which
- multiple sources of evidence are used.

Guba and Lincoln (1981) state that case study research has many purposes: to chronicle events; to render, depict, or characterize; to instruct; and to prove or test. Eisenhardt (1989) defines case study as a research strategy that focuses on understanding the dynamics present within single settings. Eisenhardt (1989) indicates a case study can:

1. Involve either single or multiple cases, and numerous levels of analysis;
2. Employ an embedded design, that is, multiple levels of analysis within a single study (Yin, 1984);
3. Combine data collection methods such as archives, interviews, questionnaires, observations, and some experiments;
4. Employ data collection techniques such as questionnaires, observations, documentation, archival records, and interviews;
5. Combine both quantitative and qualitative data; and
6. Provide description, test theory, or generate theory.

The case study research strategy is generally used in organizational research. The central activity of organizational research is theory building. Therefore, there is a need to build testable and valid theory from case study research for organizational research. Table 3.1 depicts the process of building theory from case study research. Theory building processes rely on past literature, empirical observation, experience, and on the insight of the theorist to build incrementally more powerful theories (Eisenhardt, 1989). Theory building may result in the need for a new perspective on an already researched topic or to provide novel, testable, or valid theory to a new topic area.

Case study research is naturalistic in that the researcher does not attempt to manipulate the research setting (Patton, 1990). This means that the research setting has naturally occurring events or relationships without predetermined elements designated by the researcher. Moreover, case study research involves inductive logic which is derived from theory building. Inductive reasoning begins with observations followed by one trying to develop theories to support the observations.

3.1.3.1. Use of Multiple Case Study

Multiple case studies were utilized for this research. In the case of multiple case studies, replication logic is used instead of sampling logic. The replication logic for multiple case studies is the same for multiple experiments. For example, if one has access to only three cases of a rare, clinical syndrome in psychology or medical science, the appropriate research design is one in which the same results are predicted for each of the three cases, thereby producing evidence that the three cases did indeed involve the same syndrome (Yin, 1989). Consequently, replication is evident if comparable results occur from all three cases. The logic behind multiple case studies contain either literal or theoretical replication. Literal replication is defined as similar results or findings occurring across cases. Whereas, in theoretical replication, different results are expected across cases

Table 3.1. Process of Building Theory from Case Study Research (Eisenhardt, 1989)

Step	Activity	Reason
Getting Started	Definition of research question Possibly a priori constructs	•Focuses efforts •Provides better grounding of construct measures •Retains theoretical flexibility •Constrains extraneous variation and sharpens external validity
Selecting Cases	Neither theory nor hypotheses Specified population	•Focuses efforts on theoretically useful cases – i.e., those that replicate or extend theory by filling conceptual categories •Strengthens grounding of theory by filling conceptual categories
Crafting Instruments and Protocols	Theoretical, not random, sampling Multiple data collection methods Qualitative and quantitative data combined Multiple investigators	•Strengthens grounding of theory by triangulation of evidence •Synergistic view of evidence •Fosters divergent perspectives and strengthens grounding
Entering the Field	Overlap data collection and analysis, including field notes Flexible and opportunistic data collection methods	•Speeds analyses and reveals helpful adjustments to data collection •Allows investigators to take advantage of emergent themes and unique case features
Analyzing Data	Within-case analysis Cross-case pattern search using divergent techniques	•Gains familiarity with data and preliminary theory generation •Forces investigators to look beyond initial impressions and see evidence through multiple lenses
Shaping Hypotheses	Iterative tabulation of evidence for each construct Replication, not sampling, logic across cases Search evidence for "shy" behind relationships	•Sharpens construct definition, validity, and measurability •Confirms, extends, and sharpens theory •Builds internal validity, raises theoretical level, and sharpens construct definitions
Enfolding Literature	Comparison with similar literature Theoretical saturation when possible	•Sharpens generalizability, improves construct definition, and raises theoretical level •Ends process when marginal improvement becomes small
Reaching Closure		

requiring the researcher to explain each based on the characteristics of each case. The aim of this research is to seek literal replication.

A natural concern about case study research is that it furnishes little justification for scientific research. The question that frequently arises is, how can one generalize from a single case study? Yin (1989) responds to this question:

Case studies like experiments, are generalizable to theoretical propositions and not to populations or universes. In this sense, case studies like the experiment, do not represent a "sample" and the investigator's goal is to expand and generalize theories (analytic generalization) and not to enumerate frequencies (statistical generalization).

The possibility to generalize from one single case is founded in the comprehensiveness of the measurements which makes it possible to reach a fundamental understanding of the structure, process, and driving forces rather than a superficial establishment of correlation or cause-effect relationships (Yin, 1989).

3.2. Design Issues and Choices of the Research

There are important design issues and options to be considered when developing a research plan. Patton (1990) identifies these different design issues and options in Table 3.2. In Table 3.2., the design choices for this research will be identified. This section includes the following design issues and options: unit of analysis; sampling strategies employed; sampling criteria used; sampling decisions made; people; events; sources of data; sources of data used to answer research questions; addressing construct and external validity, reliability and confidence; handling of logistics and practicalities; handling of ethical issues; matters of confidentiality; and handling of my bias. The design issues and options selected for this research directed the activities chosen to complete the research process.

Table 3.2. Research Design Issues and Options
Adapted from Patton (1991)

Issues	Sample Options and Considerations	Choice for this Research
What type of Research will this be?		
a. What will be the primary purpose of the study	Basic research, applied research, summative evaluation, formative evaluation, action research	Formative Evaluation
b. What will be the nature of focus of the study?	Exploratory, descriptive, explanatory, predictive	Exploratory and descriptive
c. Will the research build or confirm theory?	Theory-building, confirming theory	Theory building
What will be the unit of analysis	Individuals, groups, program components, whole programs, organizations, communities, critical incidents, time periods	Individuals and groups
What sampling strategies will be used	Purposeful sampling, probability sampling; variations in the sample size from a single case to a generalizable sample	Purposeful sampling, extreme, and deviant case sampling
What people, settings, events and social processes will be sampled? (Miles and Huberman, 1984)	Purposefully or randomly select key people, settings, events, and social processes	People (interviews), settings (meeting areas), events (team or group meetings) will be purposeful sampled.
What type of inquiry paradigm will be used?		
a. What controls will be exercised?	Naturalistic inquiry, experimental design, quasi-experimental design	Naturalistic inquiry
b. What analytical approach will be used?	Inductive, Deductive	Inductive
c. What types of data will be collected?	Qualitative, Quantitative or both	Qualitative
What will be the sources of data?	Documentation, archival records, interviews, direct observation, participant observation, and physical artifacts (Yin, 1989)	Documentation, direct non-participant observation, focus group, and key informant interviews
What research method will be used?	Case study method, experimental method, historical method	Case study method
How will logistics and practicalities be handled?	Gaining entry to the setting, access to people and records, contracts, training, endurance, and so on	Gained entry and access through contacts
How will ethical issues and matters of confidentiality be handled?	Informed consent, protection of human subjects, reactivity, presentation of self, and so on	Informed consent

3.2.1. Unit of Analysis

Four organizations were selected to be studied for this research. Three of these organizations have achieved recognition (awards) for their quality and productivity (TQM) efforts and one has achieved recognition of its practice of diversity management. The unit of analysis for this research is the organization. However, the primary focus of data collection was based on what individuals and groups said about the management of race/ethnicity and gender diversity and the TQM process in their work setting and within the organization and the observation of interaction between team members. The collection of data from these individuals and groups was centered around interviews and observations.

Patton (1990) states the key issue in selecting and making decisions about the appropriate unit of analysis is to decide what it is you want to be able to say something about at the end of the study. At the end of this study, I want to be able to make a statement about how organizations should manage race/ethnicity and gender diversity in the context of large-scale change efforts aimed at improving organizational performance based on what is read, heard, and observed about the phenomena at each site.

3.2.2. Sampling Strategies Employed

For this research, I employed Patton's (1990) purposeful sampling strategy. Patton states that there are 16 purposeful sampling strategies. Table 3.3. provides a brief definition of each of these purposeful sampling strategies. Extreme and deviant case sampling was the strategy used for selecting cases. Patton (1990) states this approach focuses on cases that are rich in information since they are unusual or special in some way. The principle behind this type of sampling is that lessons may be learned from these cases

**Table 3.3. Purposeful Sampling Strategies
(Patton, 1990)**

Type of Sampling strategies	Purpose
1. Extreme or deviant case sampling	Learning from highly unusual manifestations of the phenomenon of interest, such as outstanding/notable failures.
2. Intensity sampling	Information-rich cases that manifest the phenomenon intensely, but not extremely, such as good/poor students, above/below average.
3. Maximum variation sampling	Documents unique variations that have emerged in adapting to different conditions. Identifies important common patterns.
4. Homogeneous sampling	Focuses, reduces variation, simplifies analysis, facilitates group interviewing.
5. Typical case sampling	Illustrates or highlights what a typical, normal, average.
6. Stratified purposeful sampling	Illustrates characteristics of particular subgroups of interest; facilitates comparisons.
7. Critical case sampling	Permits logical generalization and maximum application of information to other cases because it's likely to be true of all other cases.
8. Snowball or chain sampling	Identifies cases of interest from people who know people who know what cases are information-rich; that is good examples for study, good interview subjects.
9. Criterion sampling	Picking all cases that meet some criterion, such as all children abused in a treatment facility. Quality assurance.
10. Theory-based or operational construct sampling	Finding manifestations of a theoretical construct of interest so as to elaborate and examine the construct.
11. Confirming and disconfirming cases	Elaborating initial analysis, seeking exceptions, testing variation.
12. Opportunistic sampling	Following new leads during fieldwork, taking advantage of the unexpected, flexibility.
13. Random purposeful sampling (still small sample size)	Adds credibility to sample when potential purposeful sample is larger than one can handle. Reduces judgment within a purposeful category.
14. Sampling politically important cases	Attracts attention to the study (or avoids attracting undesired attention by purposefully eliminating politically sensitive cases).
15. Convenience sampling	Saves time, money, and effort. Poorest rationale; lowest credibility. Yields information-poor cases.
16. Combination or mixed purposeful sampling	Triangulation, flexibility, meets multiple interests and needs.

that may improve typical programs. These cases are extreme in that all four of the organizations selected for study are considered the best in their practice of either TQM or diversity management. Three of these organizations exemplify their being the best by winning awards for their quality and/or organizational performance efforts. The other organization is deemed the best at diversity management based on the opinions of experts in this field. For this research, the use of extreme cases made two contributions to this research. The first contribution is defining and describing the practice of race/ethnicity and gender diversity management in a TQM environment and in an environment that manages numerous areas of diversity management well. The second contribution is defining and describing the similarities and differences between the practice of race/ethnicity and gender diversity management in TQM environments in comparison to a diversity management environment.

3.2.3. Sampling Criteria Used

Patton (1990) states that there is no designated sample size in qualitative inquiry, and sample size depends on what the researcher wants to know, the purpose of the inquiry, what is at stake, what will be useful, what will have credibility, and what can be done with available time and resources. Yin (1989) states that this is suitable if the same phenomenon is believed to exist in different situations. Eisenhardt (1989) suggests that using anywhere between four to ten cases, there is no set number, can contribute to building theory from multiple case studies. I chose to study four case studies. This decision was based on the number of organizations who were willing to participate in my research, their location, and the opinion that studying only four sites would yield and contribute valid, reliable, and credible information to this research.

My research questions were a determining factor in the selection of sites for research. Marshall and Rossman (1989) state the following as being the ideal site.

1. Entry is possible;
2. There is a high probability that a rich mix of many of the processes, people, programs, interactions, and/or structures that may be a part of the research question will be present;
3. The researcher can devise an appropriate role to maintain continuity of presence for as long as necessary; and
4. Data quality and credibility of the study are reasonably assured by avoiding poor sampling decisions.

An ideal site should be accessible to the researcher and the researcher must feel comfortable in the site environment.

Numerous criteria for selecting cases for this research were used. The first criterion for two of the four sites chosen for study was that the organizations had to be SPQA and/or ACE winners. For ten years, the Virginia Quality and Productivity Center has been a coordinator of the Senate Productivity and Quality Award (SPQA) in Virginia. This award is given to organizations located in Virginia in both the private and public sector who have exemplified excellence in achieving overall organizational performance. Winning SPQA implies that the organization has done an exemplary job and has been cited by the SPQA board members in its effort to accomplish overall organizational performance, an outcome of practicing TQM effectively. The Award for Continuing Excellence (ACE) is given to organizations who have won SPQA and, during at least a three year time span, have continued to improve. This three year waiting period is enough time for an organization to confirm and demonstrate sustained continuous improvement. A brief synopsis of both the SPQA and ACE awards is provided in Sections 2.5.2. and 2.5.3. of this document.

The second criterion for the selection of the SPQA and ACE organizations was that the organizations were practicing some form of total quality management. Organizations could use their own terminology to describe their total quality efforts; however, no matter what the organization called its quality efforts, these efforts had to consist of the same description, characteristics and objectives described in the literature on TQM.

The last criterion for selecting SPQA and ACE organizations as case studies was the length of time each organization had been practicing TQM. The length of time included when the organization first began its TQM program until it won SPQA and/or ACE. Organizations that had been practicing TQM for more than two years tended to have measurable achievements resulting from the objectives of their program, instead of hoping to achieve certain objectives in the future. These organizations knew what they needed to improve in their practice of TQM in order for them to accomplish their objectives and outcomes.

Two SPQA and ACE winner organizations were found that met the selection criteria as well as agreeing to participate in the case study. These organizations are referred to as Organizations A and B. A pilot study was performed at Organization A to test and debug data collection techniques.

I used winning the Malcolm Baldrige Award as a criteria for selecting the third organization for my research. Three organizations were approached, only one agreed to participate in this research while imposing limitations to data collection. This organization will be referred to as Organization C throughout this research.

The constraints or limitations to data collection for Organization C were as follows: could not conduct focus groups or observe quality team meetings, could only interview the Corporate Director of Quality and the Vice President and Director of Human Resources Diversity, and could only perform document analysis of Organization C's TQM efforts. There is no official documentation of Organization C's racial/ethnicity and gender diversity

management practices. The only employees that have knowledge of Organization C's race/ethnicity and gender diversity management practice are the vice president of diversity management and her staff.

Therefore, data pertaining to Organization C's TQM and racial/ethnicity and gender diversity efforts lack construct validity since I was not allowed to use other data collection techniques to establish a chain of evidence, collect multiple sources of evidence, cross reference, or verify information about the data that was collected. However, there are not any differences in Organization C's data analyses in comparison to the other three organizations where data was collected. Although there was a limited amount of information collected about Organization C, it was enough to contribute and generate knowledge about how organizations successfully practice TQM manage racial/ethnicity and gender diversity. It was enough information given it was the only information that existed about how Organization C's corporate headquarters managed race/ethnicity and gender diversity within its business units.

The selection of the benchmark organization, the best at diversity management, was based on organizations chosen by experts in the field of diversity management. A biography of each of these experts is provided in Appendix F. A field of fifteen organizations were cited by these experts as being the best at diversity management and the selection of the organization to use in the study was based on which organization(s) accepted the invitation to participate in this study, its location, and when data could be collected. The only organization that agreed to participate in this study was one of three organizations that were chosen by at least two experts as one of the best organizations in diversity management. This organization is referred to as Organization D. Table 3.4. displays the names of the organizations involved in this research, the award(s) each won, and the year(s) each won.

Table 3.4. Organizations Selected as Case Studies

Organizations	Nominated or Award Won	Year Won Award
Organization A	SPQA and ACE	1983 and 1989
Organization B	SPQA and ACE	1986 and 1991
Organization C	Malcolm Baldrige	1988
Organization D	One of the best at Managing Diversity	1983 and 1989

3.2.4. Sampling Decisions Made

Making sampling decisions related to the selection of the subjects who participated in the study was important. In selecting subjects for your research, you must use a sample that represents the widest variations in the phenomenon, settings, or people under study (Dobbert, 1982). Based on accessibility, convenience, and availability of employees, the contact person at each site purposefully selected the people as participants in this research based on my guidelines. These guidelines were:

- each focus group had to have people who were of different sexes and races;
- individuals who participated in the key informant interviews could not be a part of the focus groups; and
- individuals who participated in either the focus groups or key informant interviews could not be a part of the teams that were observed.

These guidelines helped eliminate any bias that might have arisen due to individuals participating in other data collection activities who might have unknowingly tainted the data to be collected by revealing to other participants either the objectives, purpose, or questions asked pertaining to this research. The race/ethnicity and gender demographics for

Organizations A, B, and C are located in Table 3.5. In Organization D, the information pertaining to race/ethnicity and gender demographics is confidential.

The contact person made the decisions about which quality teams were observed while at the site, contacted key informants for interviews, and selected focus group members for interviewing. The people chosen to participate in this research supplied the information needed to help successfully answer specific questions about the phenomena.

Convenience sampling was the type of sampling used to choose subjects for this research. It is a type of nonprobability sampling. Leedy (1989, p. 152) states, "in nonprobability sampling there is no way of forecasting, estimating, or guaranteeing that each element in the population will be represented in the sample." In convenience sampling, the researcher makes no affirmation that the sample population is a true representation of a population. The researcher takes the subjects as they arrive at the scene or as they are presented through uncontrollable circumstances. The uncontrollable circumstance in this case was the contact person having the authority to choose my participants based on my guidelines.

3.2.5. People, Events, and Settings Chosen to be Sampled

For this research, key informant, and focus group interviews were conducted. I participated as a passive observer during the quality improvement team meetings (events) in whatever location the meetings were held (setting). The goal in performing key informant or elite interviewing was to talk with influential and well informed people within the organization about what the organization is doing or has done in areas relevant to this research. These key informants, or elites, should be knowledgeable enough to report on their organizations' policies, programs, past histories, and future plans (Marshall and Rossman, 1989). The TQM and personnel directors, EEO officers, and others who held key positions related to diversity management and TQM were interviewed. As mentioned

**Table 3.5. Race/Ethnicity and Gender Demographics for
Each Organization and Participants in Research**

DEMOGRAPHICS	Organization A	Organization B	Organization C	Organization D
Number of women in Organization vs. Size of Organization	1566/9811 15.9%	468/1112 42.1%	4719/18247 25.9%	N/A
Number of minorities in Organization vs. Size of Organization	3177/9811 32.4%	165/1112 14.8%	2844/18247 15.6%	N/A
Number of Women in Management vs. Number in Management in Organization	157/1823 8.6%	55/204 27%	1930/8796 21.9%	N/A
Number of Minorities in Management vs. Number in Management in Organization	410/1823 22.5%	19/204 9.3%	830/8796 9.4%	N/A
Number of Women who Participated in Focus Group Interviews vs. Number of Focus Group Participants	8/17	8/16	N/A	9/15
Number of Minorities who Participated in Focus Group Interviews vs. Number of Focus Group Participants	6/17	7/16	N/A	7/17
Number of Women who Participated in Team Observations vs. Number of Team Observation Participants	6/14	8/13	N/A	7/12
Number of Minorities who Participated in Team Observations vs. Number of Team Observation Participants	5/14	8/13	NA	5/12
Number of Women who Participated in Key Informant Interviews vs. Number of Key Informant Participants	1/5	7/9	1/2	5/7
Number of Minorities who Participated in Key Informant Interviews vs. Number of Key Informant Participants	1/5	1/9	1/2	1/7

in Section 3.2.3., due to constraints imposed by Organization C, only the Vice President of Diversity and the Director of TQM were interviewed.

Furthermore, both managers and employees in separate focus groups during the site visits, were interviewed. Each focus group consisted of seven or eight managers and seven or eight employees. The questions developed for these focus groups were centered around the programs, policies, and activities that are in place to manage race/ethnicity and gender diversity and how the organization manages its race/ethnicity and gender diversity and employees in general. A main goal of focus group interviewing was to encourage interviewees to speak freely while seeing their peers being open when answering interview questions.

Lastly, two quality improvement team meetings were observed at each site. Each quality team meeting consisted of a different group of employees. It was preferable to observe a quality team for both management and nonmanagement employees to see if the members of each type quality team interacted similarly with each other. This was possible in two of the organizations visited, Organizations A and B. In Organization D, the individuals who participated in the quality teams were professionals, some management, and some non management. The goal of observing these quality team meetings or group meetings was to gather data about how the group members behaved, communicated and shared information, solved problems and made decisions, dealt with conflict, worked together, and interacted with each other so the research questions pertaining to these activities could be answered.

3.2.6. Sources of Data

Qualitative research uses numerous techniques for gathering information. Some of these techniques are direct and participant observation, interview, survey, questionnaire, physical artifacts, archival records, document, and content analysis. There are many more

specialized techniques that are not used as frequently as the ones mentioned. However, this research employed direct observations, key informant and focus group interviews, and document analysis.

For this research, the issue of the validity and criteria for judging the quality of the design of the interview questions were addressed by extrapolating portions of several interview questions that had been used before. I began with sixty questions that were borrowed from "Avon's Interview Guide," located in *Beyond Race and Gender* by Roosevelt Thomas and from the Survey Instrument developed for Affinity Groups used in Kim Beaumariage's dissertation. This survey instrument was transposed by making questions out of a few of the Likert scale statements. This transformation provided data that was used to assist in answering the research questions. However, many of the interview questions that were asked to the key informants and focus group interviewees were questions that were developed to assist in gaining information about each organization's management of race/ethnicity and gender diversity and TQM practices, programs and policies. These questions were generated from knowledge about phenomena and from the information I required to answer the research questions. The sixty questions were streamlined by combining several questions into one question and eliminating redundant questions.

3.1.2.1. Observations

Observations entail the systematic description of events, behaviors, and artifacts in the social setting chosen for study (Marshall and Rossman, 1989). Marshall and Rossman further state that through observation the researcher learns about behaviors and the meanings attached to those behaviors. Therefore, the assumption was made that deeper values and beliefs were expressed purposely through behavior.

The researcher's role can vary in terms of participation during observation. Patton (1990) states the extent of participation is a continuum that varies from complete immersion in the setting as a full participant to complete separation from the setting as a spectator. During nonparticipant observations, the researcher does not actively share or participate intimately in the life or activities of the setting under study.

For this research, I obtrusively observed different team meetings within the organization. Obtrusive observation is when subjects are aware of being observed. During observations, noting of the seating arrangement, the room layout, actions that needed to be decided on, decisions made, problems solved, and questions asked and answered were made in order to gain insight about the relationship between team members. The goal of observing these quality team meetings was to gain insight about how race/ethnicity and gender diversity was managed within the team environment. During observations, an observation guide checklist was used to check off what was seen during observations (See Appendix B). How people interacted and worked together, dealt with conflict, communicated, shared information and knowledge, and participated were captured. By observing these elements, I was able to gain insight about how team members behaved toward each other and interacted with each other.

3.2.6.2. Interviews

There are three types of interviews: open-ended, focused, and survey. Most case study interviews are open-ended in nature. In this type of interview, "the interviewer can ask key interviewees for the facts that matter as well as the interviewees' opinions about events" (Yin, 1989). Key informants or elites are considered to be influential and well informed people within the organization and are selected to be interviewed based on their expertise in areas relevant to the research. "These people not only provide the case study researcher with insights into a matter but also suggest sources of corroboratory evidence"

(Yin, 1989, p. 89). Key informants or elites are also able to report on their organizations' policies, past histories, and future plans (Marshall and Rossman, 1989). The TQM and personnel directors, EEO officer, or others who hold key positions and have knowledge about race/ethnicity and gender diversity management and TQM practices within the organization were a part of the key informant interviewing process.

In focused interviewing, each interviewee is interviewed for a short period of time. Interviews can still remain open-ended even though the interviewee is following a set of questions derived from the case study protocol. A focus group interview is an interview with a small group on a specific topic (Patton, 1990) in which the interviewer asks a set of predetermined questions. The group size generally ranges from six to eight people and the interview session lasts from one-half to two hours. Group participants are asked to contemplate on the questions asked by the interviewer. Participants get to hear each other's responses and make additional comments beyond their own original responses as they hear what other people have to say (Patton, 1990). Focus group members do not have to agree or reach consensus about the questions being asked. Patton (1990) defines the objective of the focus group is to get high quality data in a social context where people can consider their own views in the context of the views of others.

I obtrusively participated as the interviewer in the key informant and focus group interviewing processes. This obtrusive participation was necessary since I possessed the most knowledge about the data that needed to be collected from the focus groups and key informants. Also, there were instances where questions needed to be reworded or explained and group members needed to be probed for me to gather sufficient data. As mentioned earlier in section 3.2.5., focus group interviews were conducted with both management and nonmanagement employees.

Lastly, the third type of interview entails more structured questions along the lines of a formal survey (Yin, 1989). "This type of survey would involve both the sampling

procedures and the instruments used in regular surveys, and it would subsequently be analyzed in the same manner" (Yin, 1989, p. 90).

An interview guide was designed and used for each interview session. The purpose of this guide was to make sure that the same information was obtained from a number of people by covering the same material (Patton, 1990). Patton (1990, p. 283) states the following:

The interview guide provides topics or subject areas within which the interviewer is free to explore, probe, and ask questions that will elucidate and illuminate that particular subject. Thus the interviewer remains free to build a conversation within a particular subject area, to word questions spontaneously, and to establish a conversational style--but with the focus on a particular subject that has been predetermined.

Separate interview guides were used for key informant and focus group interviews. The advantage of the interview guide is to make sure that the interviewer has carefully decided how to best use the limited time available in an interview situation (Patton, 1990, p. 283). It is an excellent tool to use in conducting group interviews because it allows individual perspectives and experiences to emerge while keeping interactions focused (Patton, 1990).

All focus group and key informant interview guide questions were reviewed by eight individuals to ensure that I was asking the right questions to assist in data collection and for the elimination of questions that may result in biased answers. To further eliminate bias, interview guide questions were used as a means of cross referencing and verifying responses to questions asked during key informant and focus group interviews. The interview guides used in both key informant and focus group interviewing are displayed in Appendices C.

3.2.6.3. Document Analysis

Documents are used in case studies to corroborate and augment evidence from other sources (Yin, 1989). Documents identify the organization's goals, objectives, purpose, mission, vision, guiding principles, and long-term and short-term plans. Document analysis was used to see how each organization stated on paper how it handles its management of race/ethnicity and gender diversity: initiatives, programs, policies, guiding principles, strategic plans, education and training, and regulation pertaining to Equal Employment Opportunity (EEO) and Affirmative Action (AA). Document analysis was used to view each organization's TQM program, which included education and training, team building and communication skills training programs if they existed, and surveys initiated to employees such as quality of life, communication and information sharing, employee involvement and participation, and any other documents that would help assess how the organization manages its race/ethnicity and gender diversity and TQM efforts.

3.2.7. Sources of Data Used to Answer Research Questions

What follows is an explanation of the data collection techniques used to acquire information to assist in answering the research questions. Key informant, focus group interviews, document analysis, and observations assisted in answering the first three research questions (See Section 1.2.1.). Key informants and focus groups were asked to identify the endeavors: activities, initiatives, education and training, policies, programs, and tasks the organization undertakes to manage its race/ethnicity and gender diversity. Document analyses were used to help substantiate and validate the endeavors identified during the interview process.

Key informant and focus group interviews were used to collect data to make comparisons about the means used by each TQM organization and the diversity

management organization to achieve these elements that relate to both managing race/ethnicity and gender diversity and TQM:

- means used by the organization to achieve teamwork, working together, and conflict and its resolution;
- means used by the organization to involve and empower employees to participate in the management process which includes planning, problem solving, decision making, and the operation of the organization; and
- means used by the organization to achieve effective communication, and the sharing of information and knowledge between management and employees, between employees, and between team members members.

Observation was used to collect data about how the quality teams manage race/ethnicity and gender diversity. Observations and document analyses were also used as a means of validating how race/ethnicity and gender diversity were managed within the organization.

In answering research question 3 (see Section 1.2.1.), cross case data analysis and emergent patterns were used within the data to determine if there were similar or different endeavors that TQM organizations engaged in to manage race/ethnicity and gender diversity that organizations that practice diversity management do not undertake. If there were different endeavors in the TQM organization's management of race/ethnicity and gender diversity practices compared to those of the diversity management organization, then it had to be determined whether these endeavors contributed to the organization's practice of TQM. This was done by reviewing the organization's TQM practice and identifying the endeavor's contributions to the organization's management of the elements that relate to both managing race/ethnicity and gender diversity and TQM.

The information acquired from answering research questions 1 through 3 was used, in addition to knowledge and experiences gained while conducting this research, to assist in answering research question 4, "how would I manage race/ethnicity and gender diversity aimed at improving organizational performance based on the knowledge gained from this research?"

3.2.8. How Validity of and Confidence in Findings Will Be Addressed

Patton (1990) states that validity in qualitative methods hinges to a great extent on the skill, competence, and rigor of the person doing the research. "In qualitative inquiry, *the researcher is the instrument*" (Patton, 1989, p. 14). Validity is used in judging the quality of any research design (Yin, 1989). There are four different tests used to measure the quality of a research design: construct validity, internal validity, external validity and reliability. Three tests were used in judging the quality of this research design. Table 3.6. displays the case study tactics where the three tests were used in testing the validity of this

**Table 3.6. Case Study Tactics Used for Testing
the Validity of Research Design
(Adapted from Yin, 1989)**

TESTS	CASE STUDY TACTIC	PHASE OF RESEARCH IN WHICH TACTIC OCCURS
Construct Validity	Use of multiple sources of evidence Establish chain of evidence Have key informants review draft case study report	Data collection Data collection Composition
External Validity	Use replication logic in multiple- case studies	Research design
Reliability	Use case study protocol Develop case study data base	Data collection Data collection

research design. Internal validity not used in this research is used in explanatory and casual studies since it establishes a causal relationship, whereby, certain conditions are known to lead to other conditions.

Construct validity establishes operational measures for the phenomena being studied. In addressing construct validity for this case study, three case study tactics were employed: multiple sources of evidence, chain of evidence, and have the draft of the case study report reviewed by key informants. The purpose for using multiple sources of evidence for this research is to assist in the development of converging lines of inquiry, a process of triangulation which is the joining of different sources of evidence in a single study. Using multiple sources of evidence is a means of validating data through its collection from many sources. The sources of evidence used in this study were interviews, observations, and document analysis. Yin (1989, p. 97) states "the use of multiple sources of evidence in case studies allows the researcher to address a broader range of historical, attitudinal, and observational issues; however, the most important advantage presented by using multiple sources of evidence is the development of converging lines of inquiry, a process of triangulation." Rossman and Wilson (1985) explain that triangulation is the joining of different sources of evidence in a single study.

A chain of evidence was set up and maintained that allowed an external observer to "follow the derivation of any evidence from initial research questions to ultimate conclusions" through "tracing the steps in either direction from conclusions back to the initial research questions or from questions to conclusions" (Yin, 1989, p. 102). A detailed data management system was kept on each case study that included a filing system for trip reports, correspondence, notes from phone conversations, site visits, and interviews. The detailed data management system assisted in organizing information used in multiple sources of evidence and maintaining a chain of evidence. Key informants viewed the case study drafts to confirm information, facts and evidence.

External validity was addressed through the use of replication logic in the case studies. External validity has to do with understanding whether a study's discoveries or findings are generalizable beyond the immediate case study (Yin, 1989). Case studies, like experiments, depend upon analytical generalizations (Eisenhardt, 1989) and not statistical generalization used in survey research. In using analytical generalization, I strive to generalize a specific set of results to some broader theory; therefore, the theory must be tested through replications of findings (Yin, 1989). Multiple case studies were used as a means of reproducing findings to test theories. "Once the replication has been made, the results might be accepted, even though further replications have not been performed" (Yin, 1989, p. 44). Furthermore, this replication of logic allows scientists to generalize from one experiment to another (Yin, 1989).

The objective of reliability in case study research is to demonstrate that data collection techniques can be repeated with the same results. One means of a researcher repeating an earlier study is by documenting the procedures or steps followed in the earlier study. There are two tactics that were used to ensure that validity exists in the case study: case study protocol and case study database (Yin, 1989). The case study protocol is a guide in assisting the researcher in accomplishing the research. It includes the instruments for this research: interview guide questions and observation guide checklist, as well as procedures and general rules that were adhered to during the investigation process. The case study protocol should contain the following sections (Yin, 1989):

- *overview of the case study project* (project objectives and auspices, case study issues, and relevant readings about the topic being investigated);
- *field procedures* (credentials and access to the case study "sites," general sources of information, and procedural reminders);

- *case study questions* (specific questions that the case study investigator must keep in mind in collecting data, "table shells" for specific arrays of data, and the potential sources of information for answering each question); and
- *guide for the case study report* (outline, format for the narrative, and specification of any bibliographical information and other documentation).

Protocol procedures were not formally documented, but a system was established for doing research for each case. This informal protocol system included setting up site visits, interviews, and observations through the use of a contact person at each site, a standard list of interview questions, a standard list of actions to look for during observation, and a standard format for the case descriptions.

The case study database was used to organize and document the data collected from the study. In every case study project, the researcher should strive to develop a formal retrievable database so other investigators can review the data directly and not be limited to written reports (Yin, 1989). The case study database should include all of the raw data from the case study which include notes, documents, tabular materials, and narratives.

3.2.9. Handling of Logistics and Practicalities

Entry into the potential case study sites was gained through previously established contacts in the case of Organizations A, B, and C. Letters were written to these contacts and to the vice president and/or operating officers of fifteen diversity management organizations asking for an opportunity to present them with an executive summary of this research. The executive summary outlined the objectives, purpose, benefits, and what the organization would gain if allowed to do this research in it. The benefits were a benchmark study of the organization's racial/ethnicity and gender diversity management practices to

other organizations used in the study and an internal audit of the organization's race/ethnicity and gender diversity management practices.

Two consecutive days were requested at each site for data collection; however, the contact person was informed of this being negotiable and dependent on a schedule that was the most convenient for the employees being used in this research. Two consecutive days were spent collecting data in Organizations A, B, and C, and three days in Organization D. After being granted entry into the organizations used as case sites, permission was requested and granted for use of an audio tape recorder to record interviews to eliminate errors in note taking. Notes were taken during observations. Data was recorded, and tracked, and information collected during interviews and observations were later transcribed and included in the case study data base.

The coordination of dates for possible site visits was worked out with each contact person. The contact person at each site was given the authority to develop a detailed schedule and agenda for visits to each site based on the availability of the employees participating in this research. The contact person at each site submitted an agenda and schedule of visits to me after getting confirmation of times and dates from participating individuals and group members who were interviewed and observed during the visit. After each site visit, a thank you note was sent to each contact person and to the participants and others who were beneficial in granting the opportunity for this research to be done in the organization.

3.2.10. Handling of Ethical Issues and Matters of Confidentiality

The contact persons from two of my case studies asked for anonymity for their organizations. Therefore, anonymity was granted to all of the case study participants. Interviewees were also given the option of remaining anonymous. Names were not requested during focus group interviews, but each person was asked to tell me something

interesting about himself or herself. This was a mechanism used to make the participants feel comfortable as well as uninhibited and willing to participate. Permission to record their statements was asked of each interviewee before doing so. Each contact person or others of importance in the organization were allowed an opportunity to read the case report to see if the information presented was accurate as well as ensuring that confidential information was not revealed.

3.2.11. Handling of This Researcher's Bias

Given the phenomenon under study, race/ethnicity and gender diversity management, I was subjected to researcher bias since I am an African American female. Leedy (1989) defines bias as any influence, condition, or set of conditions that singularly or together distort the data from what may have been obtained under the conditions of pure chance. In dealing with bias, you have to understand that bias is inherent in all research, but it is more difficult to detect in qualitative research. One means used for minimizing this race gender bias was by making sure there was an equitable number of women and men, both black and white, participating in the data collection process, focus group interviews, and quality team meetings. Another way of dealing with bias is through the acknowledgment that biases may be present in this research. By acknowledging the prevalence of biases in this research, it can then be appraised realistically and judged by its merits. Leedy further states that bias for researchers, like the presence of germs for the surgeon, is next to impossible to avoid. Therefore, researchers must live with bias while safeguarding against its destructive nature.

Another means that could have been used to minimize this researcher's biases was to ask another individual, preferably a white male, to accompany me during the key informant interviews and during the focus group interviews. Preferably, the same individual would accompany me to all the sites since I would have had a chance to

familiarize this person about the research. At the end of each interview, a debriefing with this individual would be done comparing what was heard to make sure it was the same or similar. However, given the distances of several of the sites and money constraints, this was not a feasible idea. However, using of an audio tape was a means of ensuring that what was recorded and heard was exactly what was said by each participant.

Questionnaires are also a data collection technique that can be used to further eliminate researcher bias. However, given the phenomena under study and the questions answered to achieve this research's objectives and goals, questionnaires would not have yielded the necessary information to satisfy these research requirements.

3.3. Data Analysis

"The purpose of qualitative inquiry is to produce findings through analysis, interpretation, and presentation of findings" (Patton, 1990, 371). The most important challenge of data analysis is "making sense of massive amounts of data, reducing the volume to information, identifying significant patterns, and constructing a framework for communicating the essence of what the data reveals" (Patton, 1990, p. 371). There are no rules for outlining data analysis. However, there are guidelines and procedures that the researcher has to combine with creativity and innovation that will assist in the data analysis process. Researchers have several obligations they must fulfill in effectively analyzing data. The first obligation is they "must monitor and report their own analytical procedures and processes as fully and truthfully as possible" (Patton, 1990, p. 372). The second obligation is the researcher should "analyze and report on the analytical process as part of the report of actual findings" (Patton, 1990, p. 372).

"Inductive analysis means that patterns, themes, and categories emerge from the data rather than being imposed on them prior to data collection and analysis" (Patton, 1990, p. 390). For this research, inductive analysis was employed to assist in identifying

patterns emerging from the data. In this research methodology and in most qualitative research methodologies, there is no clear boundary of when data collection ends and data analysis begins; they overlap each other. "Overlapping data analysis with data collection not only gives the researcher a head start in analysis, but allows researchers to take advantage of flexible data collection" (Eisenhardt, 1989, p. 539).

Data analysis for this research consisted of two strategies, within case and cross case. Within case involves detailed write-ups of each case which allow unusual patterns or themes to emerge before the researcher generalizes patterns across cases. These write-ups are often simply pure descriptions, but they are central to the generation of insight (Gersick, 1988; Pettigrew, 1988) "because they help researchers cope with the often enormous volume of data" (Eisenhardt, 1989, p. 540). Cross case analysis involves looking for patterns, likenesses and differences across cases.

3.3.1. Within Case Analysis

Within case analysis "involves organizing the data by specific cases for in-depth study" through employing a "specific way of collecting, organizing, and analyzing data" (Patton, 1990, p. 384). An objective of the detailed write-ups or case descriptions is for the researcher to "become intimately familiar with each case as a stand-alone entity" (Eisenhardt, 1989, p. 540). Van Aken (1991, p. 125) and Patton (1990, p. 388) state the process for constructing a case study is:

1. *Assemble the raw data:* interview transcripts, typed notes from observations, organization documentation, content analysis, and other published articles about the case if there is any.

2. *Code all notes, transcripts, documentation and enter coded data into one file.*
3. *Edit data:* condense file by sorting out redundancies and organizing topically for ready access.
4. *Write a case description:* a readable descriptive picture of the case making accessible to the reader all the information necessary to understand the case. The case study is presented topically (an alternative is to present it chronologically) which presents a holistic portrayal of the case.
5. *Build data displays for single-case data;* these data displays are integrated into the case descriptions.

The first step is compiling all raw case study data into the case study database. The case study database was previously defined as a tool for organizing and documenting the data collected from the case study. The case study database is a formal retrievable database that can either consist of hard files or can be computerized. Its purpose is for other researchers to be able to review the raw data directly and not be limited to written reports (Yin, 1989). The case study database should include case study notes, documents, and tabular materials. All three components were used in the case study database to help organize data.

3.3.1.1. Creating a Case Study Data Base

The case study notes are the most common element of a database. These notes may vary in form through the use of interviews, observations, and document analyses. These notes can be written notations, audiotapes, a diary, or on index cards. However, they must be stored in a convenient means so that others may access them efficiently at a later date. Notes can be divided into major categories by using any means of classification.

The only essential characteristics of the notes are that they be organized, categorized, complete, and thus available for later access (Yin, 1989).

Numerous documents relevant to the case study were collected by me during the course of the study. Compiled was an annotated bibliography of each document to assist in the storing and retrieval of the documents. Some documents contained information related directly to the phenomena under study; whereas other documents did not; therefore, primary and secondary files were generated for documents depending on their importance. Where there were cases in which there were documents that contained information relating to specific interviews, then the interview notes itemized the document for cross reference.

All data was organized into files for each of the four organizations. Case file folders contain the following:

- Case study notes from interview and observation transcriptions, handwritten notes, questions used in interviews, agenda for visit, and any artifacts collected at the site visits;
- Organizational documents consisting of EEO and AA reports, brochures, organizational charts, and published articles about the organization;
- Tabular materials consisting of questionnaires and documentation;
- A correspondence folder for letters and notes collected from telephone conversations; and
- A data analysis folder consisting of drafts of the case description, edited and condensed case file, and data displays.

4.3.1.2. Coding

Another technique used for organizing data was coding. The coding of data makes it easier for the researcher to analyze later. Miles and Huberman (1984, p. 56) define a code as:

An abbreviation or symbol applied to a segment of words--most often a sentence or paragraph of transcribed field notes--in order to classify the words. Codes are categories. They usually derive from research questions, hypotheses, key concepts, or important themes. They are retrieval and organizing devices that allow the analyst to spot quickly, pull out, then cluster all the segments relating to the particular question, hypothesis, concept, or theme. Clustering sets the stage for analysis.

There are three types of coding: descriptive, interpretive, and explanatory. Descriptive codes entail no interpretation, but the attribution of a category of phenomena to a segment of text. Interpretive codes entail the interpretation of a response or action. Lastly, explanatory codes are used to diagnose patterns in field notes. All three types of coding were used in this research.

A list of codes were generated from the data collected from each site. This list was derived from the conceptual framework, list of research questions, hypotheses, problem areas, and key elements from the study such as the elements that relate to both race/ethnicity and gender diversity management and TQM. Once the case data was obtained, field notes from site visits, transcripts from interviews, and organizational documentation that entailed information about the phenomena under study were coded to reduce the probability of the overload of words. Each piece of data was coded as it was read and the corresponding codes were written in the margin. Key words and the source of data from coded information on each case were entered into a computer file.

3.3.1.3. Eliminating Redundant Data

The last step employed in the organizing and synthesizing information is the elimination of redundant data in the computer file. This step entails eliminating data that was entered more than once in the file due to its presence in several sources. A consolidated file of all the raw case data was used to write the case description.

3.3.1.4. Write-up of Case Description

The write-up of the case description came from the information formulated from the condensed data files. A condensed data file is a file where redundant information has been eliminated. The case study description was organized according to topics. There are five sections in each case description: 1) an overview that includes background information about the organization, 2) a description of the organization's TQM practice, 3) the endeavors that constitute race/ethnicity and gender diversity management in TQM organizations, 4) a description of the means organizations use to achieve elements that relate to both managing race/ethnicity and gender diversity and TQM, and 5) a summary. The overview section gives a brief synopsis about the organization. The TQM section describes the organization's history and practice of TQM. The third section contains information about the endeavors (programs, policies, procedures, plans, guiding principles, education and training, tasks, activities, initiatives, and infrastructure) that constitute race/ethnicity and gender diversity management. The fourth section contains information about the means used to achieve the elements that relate to both managing race/ethnicity and gender diversity and TQM such as working together and conflict management and resolution; participation and involvement of employees in planning, problem solving and decision making, and the operation of the organization; and communication, sharing information and knowledge. The last section, the summary,

recapitulates the case description. Case study descriptions for each site are located in Chapter 4, Results.

3.3.1.5. Data Displays

A data display is a tool used to organize information (Miles and Huberman, 1984) that depicts data referring to a case. Data displays for this research were generated to portray information about the organization's race/ethnicity and gender diversity management practices. Two displays were developed for each case, one for the endeavors that constitute management of race/ethnicity and gender diversity in TQM and/or diversity management organization and the other for elements that relate to both managing race/ethnicity and gender diversity and TQM in the TQM and /or diversity management organizations. Tables 3.7. and 3.8. illustrates examples of both types of data displays used in this research.

3.3.2. Cross Case Analysis

Analysis of cross patterns commenced once the case descriptions and data displays for each site were completed. Emergent patterns within the data began to surface while I performed within case analysis. Patton (1990, p. 411) states "these patterns can be represented as dimensions, classification schemes, themes, and categories." Patton (1990, p. 411) further states it is "useful to cross classify different dimensions" of data "to generate new insights about how the data can be organized to look for patterns that may not have been immediately obvious in the initial inductive analysis." Eisenhardt (1989) suggests three tactics that can be used to look for cross case patterns:

**Table 3.7. Example of A Data Display that Shows Endeavors that
that Constitute the Management of Race Ethnicity
and Gender Diversity**

Programs, Plans, Practices, and Policies	Education and Training	Initiatives, Tasks, and Activities

Table 3.8. Example of a Data Display for the Means Used to Achieve the Elements that Relate to both TQM and the Management of Race/Ethnicity and Gender Diversity

Working Together (Dealing with Conflict)	Employee Empowerment, Involvement, and Participation	Communication (Sharing of Information)

1. Select categories or dimensions, and then look for within-group similarities coupled with intergroup differences. Dimensions can be suggested by the research problem or by existing literature, or the researcher can choose some dimensions;
2. Select pairs of cases and then list similarities and differences between each pair. This tactic forces researchers to look for the subtle similarities and differences between cases; and
3. Divide the data by data source. The researcher combs observational data, reviews interviews, and questionnaire evidence each separately.

Eisenhardt (1989, p. 541) further states "the idea behind these cross case searching tactics is to force" the researcher "to go beyond initial impressions, especially through the use of structured and diverse lenses on the data." Eisenhardt's first tactic was used to identify patterns across cases. Categories listed in the next sentence were used to look for similarities and differences between TQM organizations and between each TQM organization and the diversity management organization. The following categories were looked at across all four cases: types of managing race/ethnicity and gender diversity endeavors that TQM organizations and the diversity management organization engage in; activities that relate to both race/ethnicity and gender diversity and TQM, such as working together and conflict and its resolution; employee empowerment, participation and involvement; and communication and sharing information..

Data displays were also used in looking for patterns across cases in the previously mentioned categories. Meta matrices to display cross case data were used. Miles and Huberman (1984, p. 152) describe meta matrices as:

Master charts are used to assemble descriptive data from each site in a standard format. The simplest form is a juxtaposition. The basic principle is inclusion of all relevant data. The analyst usually moves to partition the data further (divide it in new ways) and cluster data that fall together so that contrasts between sets of sites on variables of interest can become clear. These partitioned and clustered meta-matrices are progressively more refined.

Miles's and Huberman's process of data juxtaposition was used to help locate patterns across cases. Juxtaposition involves summarizing the descriptive data from each of the four sites on one large wall chart. The researcher then moves to partition the data further (divide in new ways) and cluster data that fall together so that contrasts between sets of data can come clearer (Miles and Huberman, 1984).

3.4. Conclusions and Interpretations

Interpretation necessitates proceeding beyond the descriptive data. Patton (1990, p. 423) defines interpretation as:

A means of attaching significance to what was found, offering explanations, drawing conclusions, extrapolating lessons, making inferences, building linkages, attaching meanings, imposing order, and dealing with rival explanations, disconfirming cases, and data irregularities as part of testing the viability of and interpretation. All this is expected--and appropriate--as long as the researcher owns the interpretation and makes clear the difference between description and interpretation.

Schlechty and Noblit (1982) state that interpretation can acquire one of three characteristics:

- making the obvious obvious (confirming what is already known and supported by data);
- making the obvious dubious (resolving misconceptions); and
- making the hidden obvious (illuminating important things that should be known but aren't).

Interpretation for this research is of the third type since there is little documentation regarding the management of race/ethnicity and gender diversity in the context of TQM.

Patton (1990, p. 422) states:

Speculation, interpretation, and hypothesizing is alright when careful study of the data gives rise to ideas about causal linkages. There is no reason to deny researchers the benefit of those insights simply because they cannot be proven. What is important is that such statements be clearly qualified as what they are--speculation, interpretation, and hypothesizing.

A person who has researched the program, "lived with the data from the field, and reflected at length about the patterns and themes that run through the data is in a good a position as anyone else to speculate about the means, make conjectures about significance, and hypotheses about relationships" (Patton, 1990, p. 422-3).

3.4.1. Shaping the Emergent Frame

The "emergent frame or theory building" is what Eisenhardt refers to as the final product of a case study. The emergent frame may be "concepts, a conceptual framework, hypotheses, or propositions or possibly mid-range theory; or it may be disappointing--it may replicate prior theory, or there may not be clear patterns within the data" (Eisenhardt, 1989, p. 545). The search for patterns in the cross-site analyses resulted in the assistance in the development of a program to assist organizations in the management of race/ethnicity and gender diversity in a TQM environment. A list of endeavors that the four organizations involved in this study partook in to manage the race/ethnicity and gender diversity within their organization was developed. Also developed was a list of resources that these organizations utilized to help them manage the elements that relate both to the management of race/ethnicity and gender diversity and TQM in their organizations.

3.4.2. Compare to Enfolding Literature

A comparison was made of the emergent frame to the relevant literature in this field. There are few studies relating to this particular research but comparisons can be made to the studies done on the integration of diversity management and TQM. A broad range of literature was researched relating to management of diversity and TQM, and very little information has been written about the relationship between TQM and diversity management and/or the integration of these two phenomena.

A lot of my knowledge in this area comes from past-on-the job experiences in organizations that were trying to improve at the expense of not involving everyone in the workforce in the improvement process. Therefore, my knowledge and experiences were integrated into the emergent results (the development of a program to manage race/ethnicity and gender diversity aimed at improving organizational performance) and then compared to the literature relating to this research.

The validity of the findings is expanded as a result of examining a broad range of literature. An objective of the comparison of the emergent frame to the literature is to see what the research results are comparable to and what they negate. The research findings are strengthened from literature with comparable findings and "tie together underlying similarities in phenomena normally not associated with each other" (Eisenhardt, 1989, p. 544). Dissimilar literature presents an opportunity to investigate into the research findings to clarify why the differences exist.

3.5. Development of Dissertation

Most of the writing and the collection of data at the sites was done before the proposal defense. The methodology was approved by the committee at the proposal defense; therefore, sites did not have to be revisited to collect additional data. Most of the body of knowledge review (Chapter 2), the introduction (Chapter 1), and the research methodology (Chapter 3) were done prior to the proposal defense. However, after the defense, these chapters were revised and completed. The case study description for Organization A was done before the proposal meeting since this organization was used as a Pilot Study. However, the case study descriptions for the remaining three cases were completed after all the site visits were made. The other remaining chapter for this research was done after the proposal meeting.

CHAPTER 4 RESULTS

This chapter contains the detailed case descriptions that describe each organization extensively. The process for developing the case descriptions for this research was described in within case analysis in Section 3.3.1. The steps for within case analysis are: assemble raw data; code all notes, transcripts and enter into one file; edit data; write a case description; and build data displays.

In this chapter, there is one section for each case. Each section has sub-sections that are the same across cases. However, within each case's sub-sections there are some organizational specific sub-sections that describe what the organization is doing in its TQM and race/ethnicity and gender diversity management efforts. The sub-sections found in each of the four cases are:

- a brief overview that includes some background information about the organization;
- TQM efforts;
- endeavors that constitute the management of race/ethnicity and gender diversity;
- elements that relate to both TQM and race/ethnicity and gender diversity; and
- summary.

The comparison sections represent the data for the results of cross case analysis. A comparison is made of each organization's TQM efforts, endeavors, and elements pertaining to race/ethnicity and gender diversity management to other organizations in this study. The comparison provides: 1) data about what organizations that are practicing

TQM are doing in these areas that are similar and different and 2) a benchmark of the race/ethnicity and gender diversity efforts of organizations practicing TQM to an organization that is considered one of the best in its practice of diversity management. Chapter 5 portrays the information for the comparison section.

4.1. Organization A

4.1.1. Overview of Organization A

Organization A specializes in repair, overhaul, and the modernization of warships. It has the technology to aid both nuclear and conventional ships. Organization A's work includes working on submarines, surface ships, and aircraft carriers. Organization A employs 10,000 civilians and approximately 150 military personnel. The military employees include officers and enlisted personnel. Blue collar workers, who work aboard ships repairing them and in the shops, comprise 70 percent of Organization A's workforce. White collar workers who provide either operational or management support make up the remaining 30 percent.

Organization A resembles a little town. It has its own police and fire departments as well as a post office. It generates its own electrical power and operates a short line railroad. Organization A offers lodging, dining, child care, and recreation programs. It services and is serviced by as many as 25,000 people, including vendors and contractors.

Customers of Organization A include the operational ships of the US Atlantic Fleet and their type commanders. This includes the Naval Air Force, Submarine Force, and Naval Surface Force. Organization A's work is supervised by the Naval Sea Systems Command (NAVSEASYS COM) who serves the Navy worldwide.

4.1.2. TQM Efforts in Organization A

In September 1987, Organization A's Commanding officer (CO) and a select group of senior managers, who later became Organization A's Strategy Board, met to engage in long range strategic planning for Organization A. Organization A's CO had realized in order for the Organization to remain competitive it would have to develop and implement strategic goals for continuous organizational improvements. The top managers performed a detailed analysis of Organization A's organizational systems and developed strategic goals and tactical objectives. Company A's strategic goals are displayed in Table 4.1. An analysis was done of the environment that would affect Organization A in the near and long term. The values and beliefs of Organization A's management, customers, and the markets it serves were also analyzed. From these values and beliefs, the top management group developed guiding principles to be the base for all decisions and actions. Organization A's guiding principles are shown in Table 4.2.

Following the development of this initial strategic plan, the senior managers communicated their commitment to these goals and objectives to the entire organization. During a special meeting, the CO gave every supervisor a copy of the operations plan and requested their participation in this team endeavor. The CO also solicited numerous organizational units within Organization A to support these improvement goals.

4.1.2.1. Implementation Process for TQM

The implementation process at Organization A includes all employees in the process of improving the business. Organization A's implementation process involves the following:

Table 4.1. Organization A's Strategic Goals

1. Establish a process to improve quality and productivity
2. Maintain a Quality of Work Life (QWL) improvement program
3. Reduce cost of ship overhauls by at least 25% while maintaining schedule and quality
4. Develop master plan for capital investment for facilities and equipment to improve physical plant and support services
5. Develop competitive strategies to ensure maintenance of efficient workloads
6. Manage material more efficiently
7. Improve environmental management to comply with environmental laws and regulations
8. Improve the educational level of the workforce

Table 4.2. Organization A's Guiding Principles

The Organization exists to repair and overhaul ships..

We work to complete ships on time, within cost, and in conformance with all requirements.

People are our greatest asset.

We ensure a safe workplace.

We affirm equal employment opportunities for all.

Teamwork is our hallmark.

First-time quality (conformance to requirements) increases productivity and reduces cost.

We will relentlessly pursue continuous improvement.

We are customer oriented.

We protect the environment.

Thus we earn our customer's trust and our community's respect.

1. *Awareness:* The fundamentals of the awareness process involve directive leadership, communication of need, vision statement development, education, and identification of process requirements;
2. *Involvement:* Everyone must become involved in making TQM happen.
3. *Commitment:* The fundamentals of the commitment process include participative leadership, development of a recognition system, implementation of a suggestion system, development of teams, and promotion of improvement.
4. *Ownership:* Ownership fundamentals include delegatory leadership, empowering the workforce, encouraging teams, recognizing achievements, rewarding success, and sharing benefits.

The next section will identify how all employees are empowered to make suggestions for solving problems and process improvements.

4.1.2.2. Organizational Infrastructure for TQM

TQM is a process used by Organization A to involve all employees in its efforts to achieve its strategic plan. TQM at Organization A focuses on the continuous improvement of the quality, efficiency, and timeliness of the services rendered to customers, as well as the continuous improvement of the employee quality of worklife.

Organization A has created several TQM groups to ensure including everyone in the problem solving process. The Quality and Productivity Improvement Council (QPIC) is the top level management entity. Organization A's CO chairs this council. Union representation on the QPIC allows Organization A's employees to have input in its decisions and improvement initiatives. The QPIC is responsible for the deployment of TQM within the organization. The QPIC is supported by Quality Management Boards (QMBs) and Performance Action Teams (PATs). QMBs are permanent groups whose

membership includes a cross functional sector of senior memberships from all of Organization A's internal organizational units. QMBs are responsible for identifying and initiating problem solving and process improvements within its organization and between organizational units. Leadership within QMBs is rotated on a periodic basis.

PATs are under the auspices of QMBs. QMBs are responsible for chartering PATs. QMBs identify specific problems, issues, or processes targeted for problem solving or improvement. QMBs solicit individuals to work on PATs to address specific problems, issues, or processes. Once accomplishing its task(s), the PAT is disbanded.

TQM advisors or facilitators are also a part of Organization A's TQM process. They serve as consultants to both PATs and QMBs. They are trained in group dynamics and assist in team development. The TQM facilitators attend all PAT and QMB meetings and resolve any PAT and QMB conflicts within the teams and between the PATs and QMBs. They help create an environment in which group members can guide their own learning and participate equally in the group process. Lastly, they make sure that meetings stay on agenda, and the processes and actions are moved forward to resolution. Figure 4.1. shows Organization A's TQM infrastructure.

4.1.2.3. Training and Education for TQM

After deciding to use TQM as a process to help Organization A achieve its strategic plan, it was decided that all management, supervisors to senior management, had to be trained about TQM, what its application was, and why Organization A needed to embrace its theory. The first TQM training course was initially bought from Organizational Dynamics, Inc. (ODI) in 1987. The training was a sixteen hour, two day quality awareness course that was taught to every supervisor and manager at the organization, 2000 people. The purpose of this ODI course was to make management aware of the TQM process at Organization A.

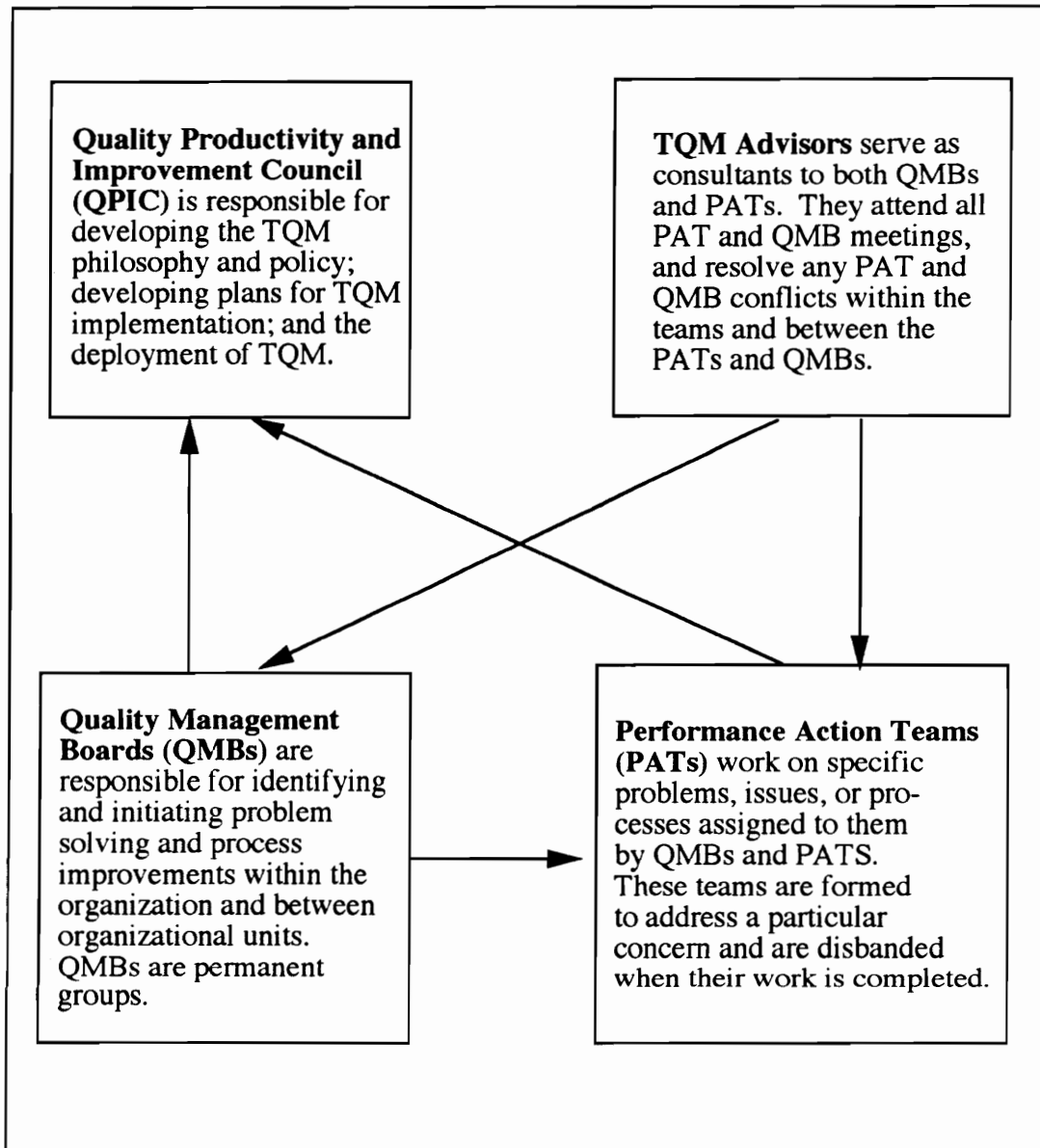


Figure 4.1. Organization A's TQM Infrastructure

An in-house program was designed to improve the initial TQM training course. The revised course was also a sixteen hour course and was based on Organization A's strategic plan. This course was called *How It Works* and was delivered to 1790 managers. This course was designed to provide people with the tools to implement the infrastructure for facilitating TQM in Organization A. Quality Management Boards (QMBs) and Performance Action Teams (PATs). Presently, there are about 175 PAT and 65 QMBs at Organization A.

In the past couple of years, Organization A began to have three day classes on statistical process control (SPC). It was assumed if 400 to 500 people from different departments with an interest in SPC were trained, they would be able to help people with specific problems in SPC.

4.1.2.4. Resources Used to Improve Organizational Processes in the TQM Environment

The Employee Input Form (EIF) is a resource used by Organization A to ensure that all employees have equal access to making suggestions for improving organizational processes. The EIF allows all employees to pinpoint improvement opportunities in the areas of quality, productivity, safety, and the quality of worklife. Upon completion of the EIF, employees submit the form directly to a TQM coordinator, the QMB that is responsible for the area, or their supervisor who will give the form to the TQM coordinator. The TQM coordinator will send the form to the designated QMB. The QMB may appoint a PAT, Process Work Group, or individual for resolution. Process Work Groups are teams containing employees who perform a process on a daily basis and the managers who are responsible for their work activities.

The employee is notified of the EIF arrangements. Individuals, work groups, or PATs assigned to the EIF will work on analyzing and implementing the process as well as provide documentation to the Productivity Office on the process improvement status.

When this task is completed, The QMB will notify the TQM coordinator who will forward the completed EIF to the employee. Through the QPIC, QMBs, PATs, and EIFs, everyone plays a vital role in improving the productivity, quality, and the quality of worklife of Organization A.

There are a multitude of processes that are linked with the operational and support functions of Organization A. Through the use of TQM, every organizational process can be improved. A 10 step approach to process improvement and problem solving using other models is a resource that was developed to handle any issue or problem that might arise in Organization A. The 10 step process is as follows:

1. Identify Problem
2. Form Process Action Team (PAT)
3. Develop the Problem Statement
4. Develop Process Flowcharts
5. Define Target Performance Measures
6. Collect & Analyze Data
7. Determine & Recommend Process Improvements
8. Implement Process Improvement
9. Monitor & Evaluate Process
10. Improve Continuously

4.1.3. Endeavors that Constitute the Management of Race/Ethnicity and Gender Diversity

Organization A does not have an official program that it calls the Management of Race/Ethnicity and Gender Diversity, but it does have policies, programs, training, activities, plans, and guiding principles that include the practice of race/ethnicity and gender diversity management. Table 4.3. displays the endeavors that Organization A uses to

Table 4.3. Endeavors that Constitute Organization A's Management of Race/Ethnicity and Gender Diversity

Programs, Plans, Practices, and Policies	Education and Training	Initiatives, Tasks, Activities, and Infrastructure
1. EEO Program and Policy 2. Affirmative Action Programs • Solve problems women and minorities encounter in workplace 3. Women's Program and Minority Program • Members of these programs are targeted for training, education, career development, recruitment, and mentoring 4. Special Emphasis Program • Address employment matters unique to women and minorities such as: 1) recruitment, mentoring, and other types of developmental programs 2) target women and minorities for educational and training programs that help them achieve the qualifications they need to perform their jobs and to be promoted	1. Sexual Harassment Training 2. Training for supervisors and management that target fair treatment of all employees (Includes EEO Training)	1. Community Relations/ Outreach • Objectives are 1) create awareness and consciousness of community organizations about opportunities for minorities and females 2) set up a meaningful relationship and rapport with these community organizations for mutual gains 2. Celebration of special activities and events related to women and minorities, e.g., Black History Month 3. Advisory Committee • Develop initiatives specifically designed for personal and professional development of minorities and women 4. Free seminars on current issues facing the organization

manage its race/ethnicity and gender diversity. Each of these endeavors (programs, policies, training, and activities) that Organization A uses to help manage race/ethnicity and gender diversity in its workforce will be explained in this sub-section.

Organization A does have an EEO program that covers all employees, including supervisors and managers. EEO is defined in Organization A's EEO Handbook as the equitable treatment in employment, promotion, training, and other personnel actions without regard to race, religion, color, sex, age, national origin, and physical or mental handicap (EEO Handbook). Company A's Affirmative Action Program Plan is a document that contains annual plans with specific requirements set by the Equal Employment Opportunity Commission (EEOC) that Organization A must follow and initiate in addressing opportunities for women, minorities and handicapped individuals (EEO Handbook).

Also, Organization A has an EEO policy that states all employees should be treated fairly and equitably. Organization A's top leader feels that EEO is sound management. In the EEO Handbook, the Commanding Officer of Organization A states:

Organization A is to provide equal employment for all persons regardless of race, color, national origin, religion, sex, age, or non qualifying physical or mental handicapping conditions. Organization A's equal employment opportunity goals and objectives fully support this policy.

My personal commitment is to attain a fully integrated workforce reflective of the labor force. Minorities, women and handicapped individuals will be aggressively recruited and those best qualified will be retained and given every opportunity in promoting minorities, women, and disabled individuals into supervisory and management positions.

The obligation to support the equal employment program and to conduct a viable affirmative action program should be shared by all personnel but especially by supervisors and managers who provide organizational leadership. Therefore, I require every supervisor and manager to aggressively implement AA to promote equal opportunity in the workforce.

The incorporation of the above principles will ensure a work environment that uses all available fiscal and human resources and will maintain a work place which is free of discrimination and representative of the diverse community in which we live.

The CO's EEO statement is a very powerful statement about his feelings on how Organization A should provide a work environment that is equitable and fair to all employees. This statement sets the tone for Organization A's commitment to the guiding principle of equal opportunities for all.

4.1.3.1. EEO and LEAD Training Programs

Organization A provides numerous training programs to its supervisors and managers to ensure they have the right skills to treat their employees equitably, fairly and with respect. Many of the training programs that Organization A offers to its managers are about human relationships and the fair management of all employees. Organization A's management training focuses on two types: Equal Employment Opportunity and Leadership, Education and Development.

Organization A's EEO program makes management aware of the lack of representation of the protected groups in certain positions in the workforce. A part of management's responsibility is to address recruiting, selecting, and hiring of these people for jobs. Traditionally, the EEO program has made management more sensitive to the protected groups through the offering of training programs. Outside consultants have been hired to come in and talk about cultural diversity and special needs for the protected groups in terms of how management relates to them as employees.

All of Organization A's supervisors and managers are required to receive EEO training. EEO policy states that the training of newly selected supervisors is mandatory. These new supervisors receive EEO training in the Basic Supervisory Development Course they attend during their probationary term. The supervisor development course is offered

in two phases within a year's period. A pre-supervisory EEO course is offered to non supervisory personnel based on a voluntary basis. Additional EEO training may be given to managers when EEO officials think there is a lack of sensitivity or understanding of protected groups based on complaints and other situations.

Special cultural diversity training has not been offered to all employees. The CO of Organization A and EEO officials expect managers who have attended training programs to talk about their training to their employees. The EEO office sends out information to inform all employees about the shipyard's policies on EEO and nondiscrimination and the rights of all individuals to work in an environment that is free of harassment and discrimination, racial and sexual. To help achieve this goal, all employees have attended sexual harassment training.

Another program that all supervisors and managers are required to attend is the Leadership, Education, and Development (LEAD) program. In the first phase of the LEAD program, supervisors are taught the fundamentals of supervision. In the second phase, supervisors are trained how to handle employee relations. The LEAD program teaches supervisors that people are different (or diverse), and because of this, they must use more than one leadership style. The leadership style chosen may be applied differently depending on the employee's developmental stage.

Also, in the LEAD training program every supervisor goes through a battery of personality tests. The three tests that are administered to the supervisors are Strength Deployment and Inventory, Group Development and Situational Leadership, Johari Window and Leadership Behavior Analysis. These tests are used to help supervisors assess their leadership styles and their strengths in relating to others, so they can make improvements in areas of weaknesses and enhance areas of strengths. The objective of this type of testing for supervisors is to help them manage their workforce better.

4.1.3.2. Diversity and Awareness Programs, Initiatives, and Activities

Organization A, under the auspices of EEO, has special emphasis programs to address employment matters unique to minorities, females, and handicapped employees such as the Federal Women's Program, and the Handicapped and Minority Programs. Members of these programs are targeted for training opportunities, recruitment, mentoring, education programs, and other types of developmental programs. These employees are involved in programs that work to solve problems encountered in work places where they have been traditionally underrepresented. Training and educational opportunities help these groups achieve the qualifications they need for jobs, so they will have the ability and competence to perform their jobs in an environment that is free of any type of discrimination, intentional or unintentional. Advisory committees serve in a consulting capacity to the Special Emphasis Programs Manager (SEPM) as well as help develop initiatives specifically designed for the personal and professional development of minorities, females, and handicapped employees.

Organization A also engages in several activities and initiatives to ensure that diversity awareness is achieved in the organization. This is done through numerous mechanisms ranging from establishing a program to recruit individuals from the protected groups to sponsoring and recognition of special annual events where protected groups of people can share their heritage and culture with others within the organization. A brief description of Organization A's diversity awareness programs, initiatives, and activities will follow.

Organization A has established a community outreach program that is a part of its EEO program and is used as a recruiting tool. The objectives of the community outreach program are to create the awareness and consciousness of community organizations about Organization A's employment opportunities for minorities, females, and handicapped

individuals as well as to set up a meaningful relationship and rapport with a variety of organizations for mutual gains.

Organization A celebrates different annual events that are specific to their protected groups such as Black and Women's History Month. Organization A also has special activities during these different annual events. For example, during Hispanic and African American month and American Indian week, there is a cultural day where food is served, artifacts are displayed, and other cultural events are presented such as speakers or entertainment that represent the culture of the special group. All employees are encouraged to participate.

Moreover, Organization A, through its Human Resource Department, sponsors free seminars that are relevant to current issues that the Organization is facing. These issues are covered during lunch time seminars that are open to all employees. The most recent lunch time seminars have addressed issues such as sexual harassment, conflict management, valuing diversity, health care, and child care. These seminars are presented by vendors who use their presentations as a means to recruit Organization A as a client. However, these seminars are used as a mechanism for employees to have an opportunity to learn about relevant issues facing them in the workforce free of charge and on a frequent basis.

4.1.4. Elements that Relate to both TQM and Race/Ethnicity and Gender Diversity

Table 4.4. displays the means used by Organization A uses to acheive the elements that relate to both TQM and race/ethnicity and gender diversity management. These elements are working together (dealing with conflict); employee empowerment, participation, and involvement; and communication (sharing of information). Each of these elements will be explained in these sections.

4.1.4.1. Working Together (Dealing With Conflict)

Supervisors are taught through LEAD training, group development, and team building how to manage conflicts between employees and conflicts between the supervisor and the employee(s). They are also trained on how to communicate during conflict situations and where and how the sources of organizational conflict arise and how to deal with it. What the supervisors and managers learn about group dynamics and conflict resolution is expected to be passed on to their employees during weekly meetings. Presently, Organization A does not have a formal training program for employees to learn how to work together or deal with conflict.

Different departments have activities to encourage team spirit and working relations. There is recognition of birthdays and a thank you board where an employee can put up a note thanking any employee, in or from other departments for doing something that is beyond what is expected of them. A Safety Award is given to deserving shops to encourage employees to work together to improve their shop's safety record. Shops compete against each other for this award each month. TQM awards are given to groups at the end of the year. These awards are based on which groups had the most improvements and savings. Organization A sees the TQM awards as good incentives for the promotion of good employee relations.

In dealing with conflict between employees, employees try to work conflict out among themselves without having to involve a supervisor or manager. However, when conflicts arise that can't be worked out, supervisors become involved. Supervisors usually use communication as a means to resolve conflict. Each employee is called into the supervisor's office and asked what he or she sees as the source of the problem. After talking with each employee and analyzing the problem, the supervisor or manager can usually work out a feasible solution that will satisfy both employees. However, in

situations where problems cannot be worked out, employees may be assigned to another work area or work group.

Table 4.4. The Resources Organization A Uses to Manage Elements that Relate to both TQM and Race/Ethnicity and Gender Diversity Management

Working Together (Dealing with Conflict)	Employee Empowerment, Involvement, and Participation	Communication (Sharing of Information)
1. Management training • Group development, team building, and conflict management 2. Teams compete for TQM Award and compete for Safety Award 3. Conflict resolution chain • Employee/Employee • Employee/ Supervisor • Employee/Union Grievance • Employee/Civilian Employee Assistance Program • Employee new work area	1. PATs/Quality Teams 2. Quality of Work Life Program 3. EIF/Suggestion Forms 4. Monthly teas with CO	1. Meetings • Top Leader /Senior Level Managers. • Top Leader/ Expanded Staff • Supervisors/Employees 2. Other methods of communication • Newspaper • Memos • Supervisor instructions • Shop paper

Before addressing conflict between employee(s) and a supervisor or manager, the supervisor or manager will call the employee(s) in and tell him or her about the good things he or she is doing on the job. Then the supervisor or manager will discuss the problem and its source. After discussing the problem, the supervisor or manager will ask the employee(s) for possible solutions for solving it. After agreeing on a solution, the supervisor or manager will again praise the worker. In cases where conflicts cannot be

resolved between the employee(s) and supervisor, the supervisor will tell the employee about the chain of command he or she can use to solve the conflict. This chain of command allows the employee to talk to the supervisor's boss with or without the supervisor being present.

In other instances where conflicts between employees or between employees and management cannot be resolved, employees have the option to go through the union grievance procedure. Employees that constantly engage in conflicts with others can be referred by management to the Civilian Employee Assistance Program.

4.1.4.2. Employee Empowerment, Participation, and Involvement

Employees are empowered to participate in the problem solving activity and decision making process through PATs and the Employee Input Form (EIF). PATs and EIFs also empower employees to solve problems pertaining to work processes and/or the quality of work life. Employees may not make the final decision but they enhance the process through recommendations and solution generation.

Organization A also has a beneficial suggestion system that is mandated through its parent organization. Employees may receive money for their suggestions. The system is perceived by employees to be non responsive and ineffective. It may take years for an employee to get a response from this system and there is no feedback on where their suggestion is within the suggestion process. Whereas, with the Employee Input Form, there is an automated tracking system for tracking employee suggestions using a personal computer. Consequently, through this program, the employee is notified of the status of his suggestions which results in quick turnaround and feedback.

Employees are empowered to confront problems that arise in their departments. They also work in groups to identify problems and solve them. Employees also have the opportunity to participate in the decision making process through these work groups. It is

easier for employees who work with processes on a daily basis to identify and solve problems pertaining to them. Supervisors encourage employees with individual problems to generate solutions before bringing the problem(s) to them. Solution generation allows the employee and supervisor to work through solving the problem(s) more efficiently and effectively. Also employees with similar problems meet to discuss and generate possible solutions for solving the problems before going to the supervisor.

However, because people are Organization A's greatest asset, as stated in its Guiding Principles, the belief is that they should participate and be involved in the enhancement of their working environment. This is done through Organization A's Quality of Work Life (QWL) Program. All employees from all departments have representatives either union and/or employee(s), that sit on the QWL council along with top management. Individual improvement ideas are channeled to the council through EIFs, supervisors, or taken directly to the members of the council. The council, using the team concept to problem solving, prioritizes these problems and then solves them.

Lastly, Organization A's CO encourages employee participation and involvement in the organization through the facilitation of monthly teas. The Commander randomly invites employees from different departments to participate. During these meetings the Commander listens, talks, and tries to find out what the employees concerns are regarding the organization. The teas are an open forum and everyone invited is encouraged to actively participate in the discussions.

4.1.4.3 Communication (Information Sharing and Knowledge)

Organization A's CO has a meeting every Monday morning with senior level people. In this meeting he talks about the organizational successes and improvements and the current news from headquarters affecting the organization. Information from

Organization A's Commander's weekly meeting is filtered through other levels of management and then to supervisors through memos and instructions to the supervisors.

Organization A's CO also has an expanded staff meeting once a month with the rest of management, including supervisors. Organization A's CO emphasizes in these meetings, that it is a responsibility of management to communicate what's discussed at these meetings with their employees. Organization A has a bi-weekly newspaper that is distributed to all employees called *Service to the Fleet*. All of the pertinent information affecting the organization including its TQM effort is relayed to all employees in the paper. Also, many shops have shop papers that disseminate information to their employees.

4.1.5 Summary

Organization A has gone to tremendous lengths to include all of its employees in the TQM process. All employees have not had the opportunity to participate on a PAT but they do have an opportunity to utilize the EIF to make suggestions for improvements in the areas of quality, productivity, safety, and quality of work life. Also, employees have the opportunity to suggest improvements for their particular job or processes they work with.

Although Organization A does not have a management of race/ethnicity and gender diversity program, its guiding principles state its belief that people are its greatest asset and the affirmation of equal employment opportunities for all. Organization A has special programs for race/ethnicity and gender diverse groups that address career development, employment opportunities, recruitment, mentoring, training, and education. There are also special interest programs that target concerns and issues in the work environment that are unique to these groups. All supervisors and managers at Organization A are required to receive EEO training, and all employees and management receive sexual harassment training.

Organization A also has special programs that promote race/ethnicity and gender diversity awareness. These special programs include community outreach programs and the celebration of events that are specific to race/ethnicity and gender diverse groups. Organization A has actively designed activities that encourage employees to work together. This organization has encouraged employees to participate in programs to enhance their working environments as well as involve them in the problem solving and decision making processes within their work settings. Organization A uses various mechanisms to communicate information and to share knowledge with employees. This organization communicates and disperses information through memos and instructions generated from the Commander's weekly meetings, expanded staff meetings, shop meetings, and Organization A's bi-weekly newspaper.

In conclusion, Organization A has made a conscious effort to include all employees in its organizational improvement efforts. This organization has also designed and initiated special programs to ensure that the issues concerning race/ethnicity and gender diverse employees are addressed within the organization.

4.2. Organization B

4.2.1. Overview

Organization B employs about 1200 people and provides systems engineering, software development, and systems integration services to the Federal Government. Organization B's commitment to continuous improvement has enabled it to succeed in the midst of today's swiftly changing business environment. Due to this rapidly changing business climate, Organization B has seen a dramatic change in its customer and corporate environment. Since the fall of the Berlin Wall, Organization B has begun a series of fundamental changes in national priorities and governmental requirements which continue to impact its traditional market place the defense and intelligence communities. These new

changes have forced Organization B to identify, pursue, and adapt to new markets, while sustaining its position with its existing customers.

Organization B is a division of a larger organization whose total employment is about 63,000 people globally. Corporate has commissioned a diversity goal and committee with representation from all divisions. The objective of the diversity committee is to see what each division is doing to foster diversity and how each division is achieving corporate's diversity goal.

Organization B is presently in the process of restructuring. Many of its employees will be leaving and joining a newly created division, and employees from other divisions will be coming to work in Organization B.

4.2.2. TQM Efforts in Organization B

Organization B began its quality activities in 1984 with the creation of a Productivity Policy Council (PPC) to oversee and guide its quality and productivity efforts. In 1987, Organization B adopted the Continuous Improvement Process (CIP). It is Organization B's approach to the initiation and maintenance of TQM as part of its corporate culture. The objective of the CIP initiative is to foster a pervasive improvement culture throughout the Division by motivating employees to participate through rewarding and recognizing them. Organization B's mission and vision exemplify its views about the CIP effort (See Tables 4.5 and 4.6).

The momentum behind CIP is customer focus and employee involvement. The purpose of CIP is "Complete Customer Satisfaction." The definition of quality/CIP for Organization B is displayed in Figure 4.2. A crucial part of CIP is the empowerment of organizational units, employees, and work groups to take charge of their work processes and improve them. However, in order to improve processes, employees and work groups

Table 4.5. Organization B's Mission Statement

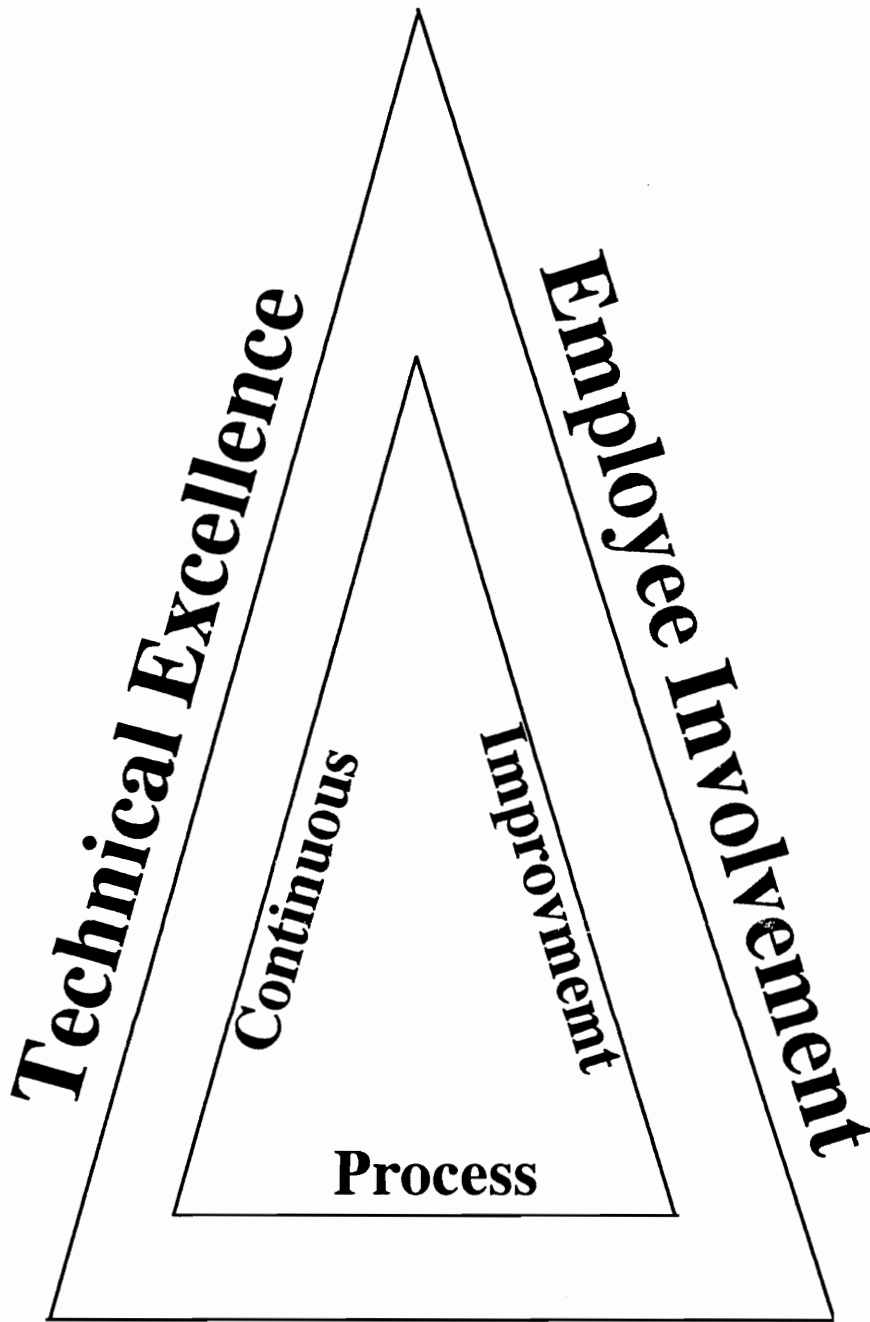
Organization B will achieve technical excellence through employee involvement and commitment to quality. We will

- Be a premier of supplier of systems integration, software, and engineering services
- Provide "superior products" which meet customer needs in a timely and cost effective manner
- Involve employees in decisions affecting their work
- Achieve a quality standard of "conforming to customer requirements," without exception

We will accomplish the above by implementing the Continuous Improvement Process, which is Organization B's Total Quality Management (TQM) program. The Continuous Improvement Process (CIP) is a major strategic initiative to facilitate achievement of our vision and help meet the challenges of the rapidly changing defense industry business environment. The CIP program will ultimately involve all Organization B's employees in natural work groups which will focus on improving processes to maximize the quality of our services and products to our customers. The CIP program is a comprehensive organizational change agent that in 2-3 years will become the way business is conducted in Organization B.

Table 4.6. Organization B's Vision Statement

Vision Statement	Organization B will provide superior value through employee involvement and commitment to quality
Superior Value	Our goal is to be recognized as the premier supplier of systems integration, software, and engineering services to the Federal Government. We strive to provide technically superior products and services which meet customer needs in a timely and cost effective manner.
Employee Involvement	We believe that employees have a fundamental desire to participate in decisions affecting their work and that given the opportunity to do so they will achieve extraordinary results.
Commitment to Quality	The quality performance standard for every employee in Organization B is conformance to customer requirements, without exception.



Commitment to Quality

Figure 4.2. Company B's Definition of Quality

are trained on the use of CIP tools and techniques. Organization B has nine principles that guide the CIP/TQM activities and training. These principles are:

- Organization B will provide superior value through employee involvement and commitment to quality.
- Superior value is achieved through continuous improvement.
- Employee involvement and empowerment through natural work groups are essential elements of CIP.
- Quality is: conformance to customer requirements without exception; doing the **right** things **right** the first time.
- Each employee is both a customer and a supplier.
- Measuring improvements in quality and productivity is necessary and required.
- Complete customer satisfaction is the purpose of CIP/TQM.
- Organization B will reinforce CIP/TQM through systematic support-- measurement, feedback, rewards, and recognition.
- CIP/TQM is: a journey, an on-going process (not a program); a mindset, Organization B's way of doing business.

4.2.2.1. Organizational Infrastructure for CIP

Organization B's approach to CIP is based on individual initiative, management involvement, and a minimum amount of bureaucracy. Organization B's early involvement in CIP had very little infrastructure and was based on the employee involvement organization and the Productivity and Policy Council. However, as CIP matured, more activities were included in the process and a sophisticated infrastructure was established to achieve the CIP activities. The infrastructure for CIP in Organization B consists of the Division Management Team, the Quality Council, the Quality Steering Committee, the

Productivity Policy Council, the Training Steering Committee, Standing Councils, and Natural Work Groups. Each of these groups and the activities they are responsible for involving CIP will be discussed in this section. Figure. 4.3. displays the organizational infrastructure chart for Organization B's Continuous Improvement Process.

In Organization B, the *Division Management Team (DMT)*, in response to employee recommendations, made a major commitment to lead the CIP effort. The DMT, along with the General Manager, is responsible for running Organization B. The DMT reports directly to the General Manager about the performance and progress of each organizational unit in Organization B. The General Manager in turn reports directly to Corporate about Organization B's performance and progress.

Each DMT member provides the General Manager with financial and business reviews regarding the performance of his or her organizational unit. The General Manager added a CIP review to the other reviews provided to him by the DMT. Included in the CIP review from each DMT member is a report on the quality metrics each has established in his or her organization. The responsibilities of the DMT are:

- to analyze, measure, benchmark, and improve key division processes (new business development, financial planning, project management, and software engineering);
- to demonstrate and teach the Continuous Improvement Process to all employees;
- to identify process measures and brief the progress of CIP efforts to the General Manager on a monthly basis.

The General Manager chairs the *Quality Council (QC)*. The members of the QC consist of the DMT, the Quality Steering Committee, and selected members (TQM Board of

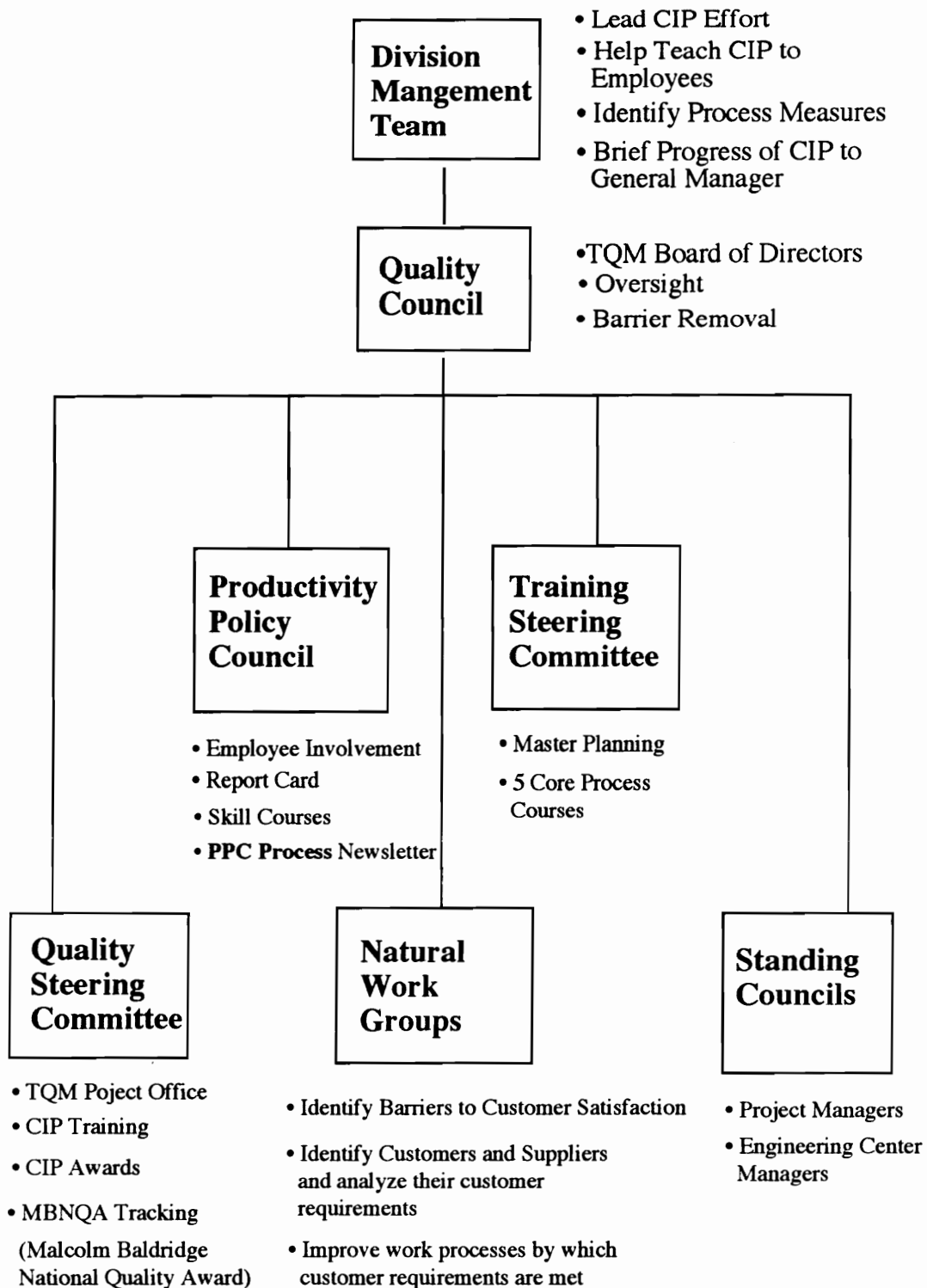


Figure 4.3. Organization B's Infrastructure for the Continuous Improvement Process

Directors). The QC oversees Organization B's CIP effort. The QC reviews all ongoing quality activities in order to identify and remove barriers that may impede the quality effort.

The *Quality Steering Committee (QSC)* is co-chaired by a Division Management Team member and a non-direct report of the Productivity Policy Council. The QSC, once largely a volunteer employee group, is now composed of half DMT members and half employees. The QSC performs two basic functions nurturing the Continuous Improvement Process and supporting the Quality Council in its role of supervise the entire set of CIP activities. The QSC manages five CIP training courses and administers the annual CIP Awards process. The QSC also guides the Quality Improvement Plan and assesses or baselines the organization each year against the Malcolm Baldrige Quality Award criteria.

The assessment process involves tracking where the Organization stands based on the Baldrige criteria, identifying gaps between the Organization and the Baldrige criteria, and identifying what improvements have to be made to be a contender for the next year. The gaps identified from the Baldrige assessment sets the agenda for improvement efforts for the following year.

The *Productivity and Policy Council (PPC)* is a volunteer committee whose members represent a cross-section of project and functional management, technical performers, business and support staff. The PPC provides a direct channel to Organization B's management for employee recommendations and concerns. There are an estimated 13 PPC task forces that address a wide range issues (e.g., training, technology transfer, employee morale, rewards and recognition). The PPC is also responsible for the PPC Annual Report Card, PPC training courses, Managing for Productivity workshop, the *PPC Process* newsletter, studies, and recommendations.

The *Training Steering Committee (TSC)* oversees all of Organization B's training activities with primary emphasis in three areas—maintenance of Organization B's Master

Training Plan (MTP), quality assurance of the training courses, and the administration of the core process courses. Each of these three areas is explained:

- The MTP provides coordination to ensure that the organization's business and employee interests are properly served by the training programs.
- The quality assurance role is to evaluate training (materials and administration) and ensure that all are operating under effective continuous improvement processes.
- The administration of the 5 core process courses involves surveying the students about the courses and making changes according to their suggestions.

The TSC is co-chaired by the Chief Engineer and the Human Resource Manager.

Organization has two standing councils: the *Project Council (PMC)* and the *Engineering Center Manager's Council (ECMC)*. The standing councils accept task assignments from the DMT as well as serve as sounding boards for ideas under consideration by the division. They also make recommendations to the DMT on matters of special concern.

The PMC is a Natural Work Group composed of project managers. This council's primary responsibilities are working on issues of cost, customer satisfaction, support organizations (subcontracts, contracts, and purchasing), and processes (planning and review). Members of this council also work with other councils such as the PPC and ECMC on employee related issues that impact projects (e.g., performance appraisal, morale).

The ECMC is a Natural Work Group that is composed of Engineering Center Managers and Deputies. The ECMC improve functional management processes and solve problems of common concern (e.g., performance appraisal, staffing).

Organization B has over 100 *Natural Work Groups (NWGs)* at any given time that are formed to improve work processes. These work groups are the heart of the CIP initiative. They operate within project, functional, or formal organizational boundaries.

Natural Work Groups are formed and dissolved based on what processes need to be improved at that given time. Work groups can last as long as one or two meetings or even indefinitely. Joining a Natural Work Group is on a voluntary basis; persons can sit on more than one work group. Some work groups are within an organizational unit and some are cross functional with other organizational units or divisions.

Newly identified NWG's begin by defining their purpose and vision. They are trained to clearly identify all their customers and suppliers (internal and external) and to analyze their customer's requirements. They also measure and improve the processes by which customer requirements are met. They identify barriers to customer satisfaction and develop action plans to overcome these barriers. Depending on the maturity of the NWGs and the nature of their work, numerous CIP tools and techniques are used to facilitate improvement.

4.2.2.2. Training and Education for CIP

The initial CIP training course was developed in 1988 by Organization B's management and employees. Currently, there are five CIP training courses are: CIP awareness, process analysis, measurement, benchmarking, and managing work groups. CIP training currently involves increasing employee skills in process analysis and measurement techniques. All managers and employees participating in working groups are required to take these courses. The Steering Committee selects the course materials and teaches CIP training. Organization B has achieved its goal of training (100% of its workforce) on CIP awareness. All new employees receive CIP awareness training on their first day at work.

Organization B's core process courses are intended to capture its best practices and represent its way of doing business in key areas of competence. The five core courses being taught are proposal management, project management, systems engineering, software engineering, and software development and integration. Each course lasts a total of 24 classroom hours, including team activities.

All of the courses are taught by Organization B's senior managers. The courses were initiated using existing training material. Each course is continuously improved by a Natural Work Group, led by a senior manager. Between each offering, a careful review of the student evaluations, comments, and instructor recommendations are made and improvements are implemented. The goal of these courses is to develop and promulgate common processes in Organization B for engineering and developmental activities.

The PPC Training Council offers thirteen different technical courses each year on a variety of technical subjects. Course topics are strategically selected to enhance Organization B's business posture while improving employee technical skills. Examples of the courses the PPC has developed are object-oriented analysis/design, structured and analysis/design, UNIX, and C programming. The course offerings change (topically, as well as in content) as technologies advance and marketplaces shift.

In addition to these technical training courses, Organization B is dedicated to training its employees in employee involvement and participatory management. Over 500 employees from all levels of management have taken the ODI Managing for Productivity workshop and with the tools acquired from this training, these managers are now facilitating employee involvement training to the employees in Organization B.

4.2.2.3. Rewards and Recognition

Management at Organization B is fully committed to rewarding and publicly recognizing individuals and groups for their outstanding contributions to Organization B's

improvement efforts. Many different ways are used to reward and recognize employees for quality performance and professional achievement. Some of the ways used to recognize and reward employees are compensation programs, special monetary awards, and symbolic recognition (i.e., social or tangible awards such as gift items, certificates, and plaques).

Thanks to employee feedback and input, Organization B's reward and recognition program has flourished in the last several years and is continuously being modified to accommodate the needs of employees, managers, and business. Recognition can range from letters of recognition, special project lunches or certificates, to service award jewelry.

Organization B has numerous awards and recognition programs. Special Awards, the CIP Award, and the Task Achievement program are awards and recognition programs used in Organization B. Each of these awards and recognition programs will be explained in the following paragraphs.

Organization B has a formal awards program that is flexible with limited rules. Constant attention is paid to getting awards to employees in a timely fashion. Employees can receive multiple awards that are sometimes presented publicly. The quarterly newsletter, the *PPC Process*, gives additional public recognition for employee achievements. Employee achievements presented in the *Process* are promotions, degree attainment, RARA's, and Special Award recipients.

Organization B's Special Awards Program is designed to recognize and reward employee accomplishments that cannot be appropriately acknowledged through increases in base salary and/or promotions to higher positions. Employees receiving this type of recognition are rewarded with gifts or monetary awards within defined budgetary constraints. The Special Awards Program is divided into three categories: Special Awards, Rapid Recognition Awards (RARAs) and "Back Pats".

Individuals and groups of employees who achieve outstanding accomplishments outside of their job expectations are eligible for Special Awards. The typical award amount

is \$500 or \$1,000 per employee; however, \$2,000 and \$4,000 awards are also available for exceptional achievement. Employees are also given a plaque to accompany the award. Employees may receive one Special Award per year. An annual recognition luncheon is held to publicly thank Special Award winners for their contribution to Organization B's success.

The RARA Award is used to reward smaller but still significant achievements. The amount of this award can range from \$100 to \$200. All recipients of this award also receive a certificate. Employees can receive several RARAs during a year.

The Back Pat Award is used for instant recognition of small but important employee achievements. This award is represented by gift items. Some examples of the gift items are calculator portfolios or memo clip holders. Back Pat Awards may be given as frequently as deemed appropriate. Employees can nominate other employees for this award.

Organization B has a CIP Award that recognizes Natural Work Groups who have successfully applied the principles of CIP to improve processes within the organization. This CIP Award is presented to deserving NWGs annually. This award provides visibility to Natural Work Groups whose efforts contribute to the growth, quality, and cost-effectiveness of the organization, as measured by improved productivity, product quality, reduced cycle-time, and other similar outcomes. Natural Work Groups who win this competitive award are presented with trophies by the General Manager. Winners are invited to share their successes at briefings with the DMT and at employee "brown bag" meetings. An article about the winners are published in the *PPC Process* newsletter.

The Task Achievement Program provides incentives and rewards for managers, individual contributors, and groups of contributors who successfully complete key tasks critical to the goals of the organization. These key tasks that are critical to the goal of the organization are project management performance and new business initiatives.

Organization B provides cash incentives through the Task Achievement Program (TAP). TAP dollar amounts are based on the achievement of specific goals of strategic importance to Organization B. These TAP goals are assigned to employees at various levels in the organization. TAP goals can range from achieving an outstanding level of customer satisfaction to achieving an exemplary level of productivity. The Operations Director discusses with individuals or project groups, at the beginning of the task assignment, the task to be completed, the measure of its success, and the amount of the reward.

4.2.3 Endeavors that Constitute the Management of Race/Ethnicity and Gender Diversity

Organization B does not have an official race/ethnicity and gender diversity management program. However, management within Organization B has ordained diversity management as a "core value"/objective for the Organization. Organization B is in the process of institutionalizing diversity management through the publication of policies, practices, and procedures which outline goals, expectations, and methods of accountability as well as identify specific programs and processes to implement diversity efforts. Table 4.7. displays the endeavors that Organization B uses to manage its race/ethnicity and gender diversity. Each of these endeavors will be explained in this section.

Organization B has recently established a Diversity Steering Committee. This committee represents all of the minorities within Organization B and tries to develop initiatives to make Organization B a good place for them to work. The Diversity Steering Committee are advisors and consultants to the Division Management Team. The committee also makes recommendations to the DMT regarding Diversity Programs and minority employee needs within Organization B.

Table 4.7. Endeavors that Constitute Organization B's Management of Race/Ethnicity and Gender Diversity

Programs, Plans, Practices, and Policies	Education and Training	Initiatives, Tasks, Activities, and Infrastructure
1. EEO Program and Policy 2. Affirmative Action Programs • Promote a diverse work force • Increase number of women and minorities 3. Management Accountability • Diversity goals tied to Management bonuses	1. Sexual Harassment Training	1. Community Relations • Make community aware of interest in recruiting women and minorities 2. Celebration of special activities and events related to women and minorities (e.g., Black History Month) 3. Black Employee Advisory Committee and Women's Organization • assist in making the organization a better place to work by keeping top management informed of issues regarding them 4. Diversity Steering Committee • Represents all minorities in organization • Makes recommendations to top management regarding diversity programs and needs

4.2.3.1. Organization B's Affirmative Action Program (AAP)

In addition to the Diversity Steering Committee, Organization B has an Affirmative Action Program. AAP was Organization B's starting point in its efforts to promote workforce diversity. Organization B has always had an Affirmative Action Program (AAP) due to its contracts with the Federal Government. Having Federal Government contracts

makes it mandatory for organizations to abide by the EEO laws. The AAP is a means of ensuring that Organization B abides the Federal Government's EEO laws.

Organization B has a three part Affirmative Action Plan that it updates every year and submits to the Federal Government regarding its EEO practices. The plan tracks the movement of women, minorities, and veterans, in, out and within the organization through promotion. The plan also shows how Organization B treats these groups fairly and equitably in hiring, promotion, compensation, and performance evaluations. The plan also has to demonstrate how Organization B determines the utilization of these groups. Utilization refers to the types of jobs these groups hold within the organization. In determining the utilization of these groups, Organization B's demographics for these groups have to reflect and represent their demographics in the area where it is located. Therefore, Organization B's AA numbers and job types for these groups must reflect the population of these groups in the area.

Presently, Organization B's AAP goals are to increase the number of managers and employees from these groups in order to better match their demographics with the area's. Top management has the AAP goals tied to his or her bonuses. Therefore, it is up to top management to achieve the organization's AAP goals in their functional areas. If top management achieves the organization's AAP goals for hiring and promoting minorities and women, then it is reflected in the amount of each manager's incentive bonus. Hitting management in the pocket makes them realize Organization B takes meeting its AAP goals seriously.

The General Manager is the top level management representative for the AAP committee. Other AAP representatives include several senior and top level managers (members of the DMT) and representatives from the Black Employee Advisory Committee and the women's organization. Also, each organizational unit has an AAP representative.

The AAP committee meets on a quarterly basis to review the organization's diversity goals, plan how to meet the goals, and to decide where more work needs to be done to accomplish the goals. Figure 4.4. shows Organization B's infrastructure for its diversity effort. Throughout the year, information pertaining to the organization's diversity efforts is communicated to the employees.

4.2.3.2. Diversity Committees, Policies, Training, Programs, and Initiatives

Organization B has numerous committees, policies, training, programs, and initiatives that support its diversity management effort. Several of these endeavors are new to the organization and have not been perfected. However, this section will discuss each.

Presently, Organization B has three diversity committees. They are the Black Employee Advisory Committee (BEAC), a women's organization, and the Diversity Steering Committee. Organization B intends to expand the number of its diversity committees to include other ethnic groups.

Any black employee can join the BEAC. An objective of the BEAC is to assist the Diversity Steering Committee in making Organization B a better place for minorities to work. The BEAC also has representatives who participate in the AAP. This committee is very active in the organization. It has numerous responsibilities including Black History Month and representation of Organization B at the Black Engineer of the Year function.

Organization B also has a strong women's organization. This organization also has representatives who participate in the AAP. The women's organization also provides input to top management about areas that need improvement regarding issues concerning them.

Organization B issues affirmative action and sexual harassment policy statements each year. Every employee receives a copy of each of these statements. In conjunction with Organization B's sexual harassment policy statement, it offers sexual harassment training to all employees. Management encourages all employees to take this training.

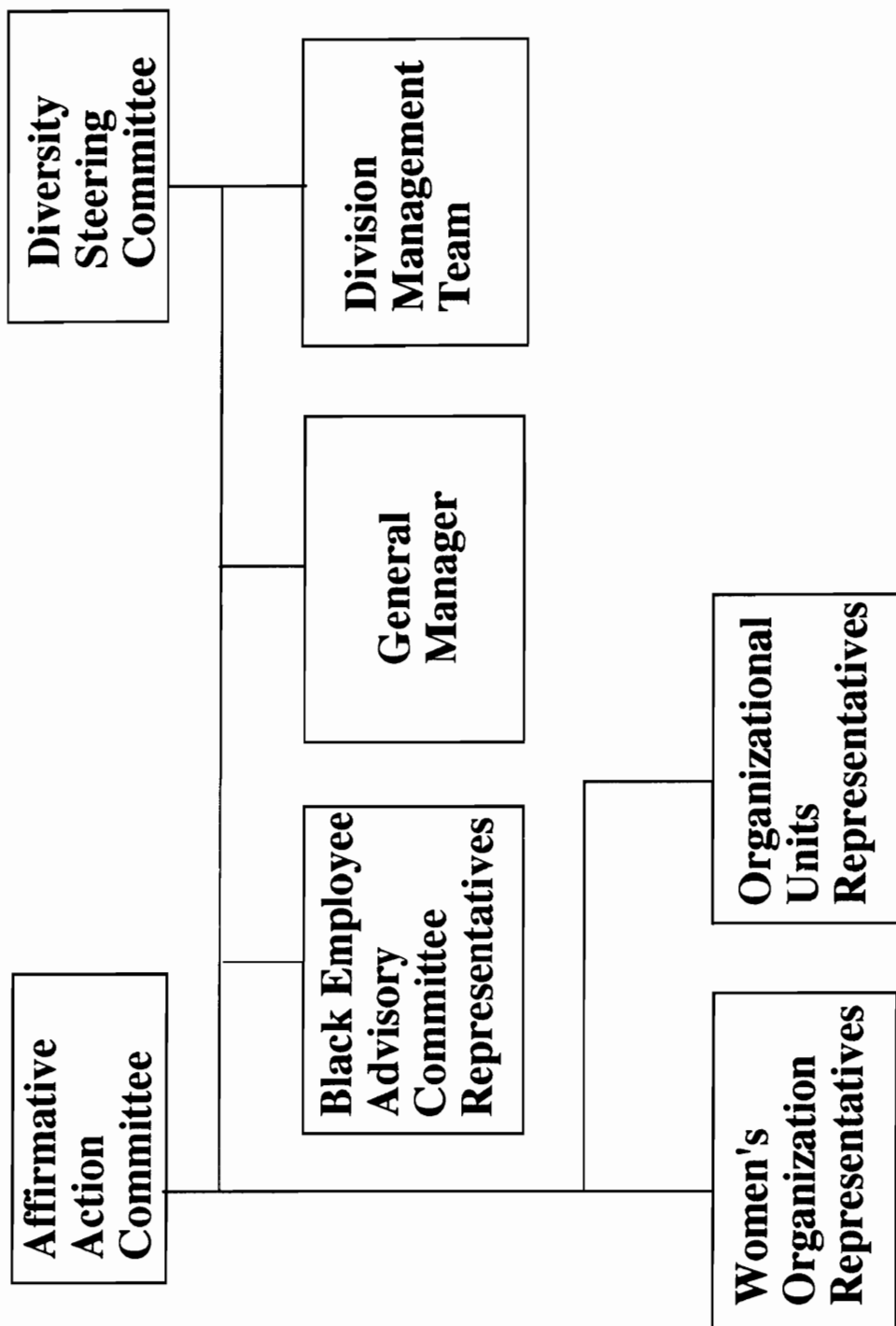


Figure 4.4. Infrastructure for Organization B's Diversity Effort

Organization B is involved in several community programs. These programs include the End Roads program, Females Achieving Mathematics, community outreach, and the Black Engineer of the Year function. Organization B's participation and involvement in these programs and initiatives will be discussed in the next paragraphs.

Organization B is actively involved in the End Roads program. End Roads is an organization (nationwide) that develops and places talented minority youths in business and industry to prepare them for corporate and community leadership. Organization B sponsors students in this program. Most of these students start the program straight out of high school, and representatives from Organization B act as mentors to these students throughout their college career. Every summer the students come to work in Organization B in an area that is related to their college major. Students usually work each summer in the organization until they graduate. After graduation, Organization B will hire these students if it is pleased with their job performance.

Another program that Organization B sponsors is Females Achieving Mathematics Equity (FAME). This program is for Junior High School students. Most of the students are minorities from schools located near Organization B. The students who participate in this program have shown an aptitude or interest in math. Organization B brings these students in and pairs them with mentors. These students are told that when they graduate high school, they can come and talk to mentors to this program about their college or career interests and goals.

Organization B has a community outreach program that is closely involved with two local high schools. These two high schools specialize in teaching science and technology. Organization B sponsors science fairs yearly at these two schools. Employees participating in the science fair talk to students about current technology used in Organization B.

Organization B also participates in the Black Engineer of the Year function. Organization B uses this function as an opportunity to recruit and inform minority engineers

about the organization and employment opportunities. The Black Engineer Advisory Committee from Organization B goes to this function and sets up a career booth.

4.2.4. Elements that Relate to both TQM and Race/Ethnicity and Gender Diversity

Table 4.8. displays the means Organization B uses to achieve the elements that relate to both TQM and race/ethnicity and gender diversity management. These elements are working together (dealing with conflict); employee empowerment, participation, and involvement; and communication (sharing of information). Each of these elements will be explained in these sections.

Table 4.8. The Means Organization B Uses to Achieve the Elements that Relate to both TQM and Race/Ethnicity and Gender Diversity Management

Working Together (Dealing with Conflict)	Employee Empowerment, Involvement, and Participation	Communication (Sharing of Information)
1. Management training • Managing work groups, team building 2. Teams compete for CIP/TQM Award 3. Team building training for NWGs 4. Conflict resolution chain • Employee/Employee • Employee/ Supervisor • Employee/Human Resources • Employee/ Supervisor's Boss • Employee/Top Management • Employee new work area	1. NWGs/Quality Teams 2. QWL Report Cards 3. Productivity/Quality Council 4. Diversity Steering Committee	1. Meetings • Top Leader/Senior Level Managers. • Top Leader/Staff Management • Supervisors/Employee • All employees 2. Other methods of communication • Memo • Brown Bag Lunches • Weekly Status Reports • PPC Process • General Manager Letter • The Spectrum • Flyers • Special Bulletins • Newsletter

4.2.4.1. Working Together (Dealing with Conflict)

Organization B has several courses that address working together and team building. The *Management for Productivity* course addresses management style and how people relate to each other. There is also a CIP training course that focuses on management and facilitation of work groups. Any employee can take this course. Natural Work Groups can also request team building training. An internal instructor who is certified to train in this area will do the training, or an outside consultant will do it. CIP training tries to assist Natural Work Groups in developing skills in working together. Organization B also uses special group techniques to train people about working together. A few of these group techniques are aimed at assisting employees and management in moving from an autocratic management style to a more participative management style.

In Organization B, supervisors, managers, and employees get together to talk about conflicts and its resolution. If supervisors or managers can't resolve conflicts between employees, then employees can consult the Human Resource Department for resolution. If a resolution cannot be reached through this means, then employees can request to be moved to other work areas.

This same process is used in resolving conflict between management and employees. If there is a problem between a supervisor or manager and an employee, the supervisor's or manager's boss can be asked to resolve the conflict between the parties. If the conflict cannot be resolved by this measure, then the employee can consult the Human Resource Department. However, Organization B has an open door policy. If an employee is not satisfied with how conflict resolution is handled pertaining to other parties, then the employee is free to consult top management about the problem and its resolution.

4.2.4.2. Employee Empowerment, Participation, and Involvement

The CIP initiative represents the primary means of employee empowerment and involvement in Organization B. Employees are empowered to participate in the CIP effort through the PPC and NWGs. However, with the exception of the PPC, NWGs, and the PPC annual report card, there are limited opportunities for employees to become involved in the improvement process. CIP provides the incentive, the tools, and the opportunity for employees to be involved in Organization B's improvement efforts. Through CIP efforts, supervisors are encouraged to empower their employees to plan and implement change.

Employees involved in NWGs are empowered to make decisions, solve problems, plan, and improve the day-to-day operations of the processes they work with. They are also empowered and encouraged to seek out areas in their work processes that need to be improved. Employees participating on the PPC are empowered to solve problems, make decisions, plan, and improve specific items. The items that the PPC is empowered to improve are the annual report, productivity workshops, training, the *Process* newsletter, issues pertaining to task force activities, and compensation and evaluation.

The PPC Annual Report Card is an annual survey conducted by the PPC that empowers employees to evaluate Organization B's effectiveness in areas such as new business, program performance, morale, and communications. An example of a Report Card is displayed in Table 4.9. The Report Card contains eleven categories. These categories are ranked and graded by Organization B's employees. The PPC summarizes the report card results and makes improvement recommendations to the Quality Council based on the areas that were ranked and graded the lowest by employees. These recommendations drive the agenda for improvement for the following year.

The PPC, in 1992, developed an Empowerment Briefing that was distributed to all employees. This briefing explains the definition of empowerment, how it's defined in

Organization B, its benefits to the organization and to the individual. The following is Organization B's definition of empowerment:

- Decentralized decision making
- Shared responsibility
- Individual commitment and ownership
- Increased participation, involvement, and initiative
- Challenging people to perform to the limits of their ability
- Sharing of information and power
- Commitment to group processes

Table 4.9. An Example Organization B's Annual Employee Report Card

Categories	1990 Grade	1991 Grade	1992 Grade
Morale	49	58	54
Total Compensation	----	58	49
New Business	53	64	54
Management	54	60	58
Performance Evaluation	50	47	53
Productivity Through Participation	62	55	52
Training	58	60	60
Communications	65	65	57
Support Organizations	62	70	67
Work Environment	59	60	60
Program Performance	71	69	72

4.2.4.3. Communication (Sharing of Information)

Keeping employees informed with timely, relevant, and credible information is important to Organization B's continued success. Management within Organization B feels communicating its shared visions and goals in an open and candid manner is a means of remaining competitive in a rapidly changing business environment.

Management within Organization B encourages the downward, upward, and lateral flow of information needed for interaction between the Division Management Team and employees at all levels. Organization B has a wide variety of activities and programs that are continuously being enhanced to meet the needs for communication and sharing of information and knowledge with and between employees and management. Some current activities and publications that promote communication are:

Informational activities that facilitate the flow of information throughout the organization

- Annual all employee's Meeting
- Brown Bag Lunches
- Project and Engineering Center all Employee Meetings
- Division Management Team (DMT) Communication Plans
- New Employee Orientation

Business oriented activities that inform, instruct, and support business related topics and strategies and disseminate the information to employees:

- Staff Management Meetings
- Weekly Status Reports
- Project Review and Business Meetings
- Offsite Meetings
- Expanded Management Meetings

Publications that keep employees informed about the concerns and interests of
Organization B:

- General Manager's Letter
- PPC Process
- The Spectrum
- Flyers
- Special Bulletins

4.2.5. Summary

Organization B includes all employees in the Total Quality Management process/Continuous Improvement Process (CIP). The objective of Organization B's quality goal is "total customer satisfaction." All employees have had CIP training. All employees can volunteer to participate on Natural Work Groups (NWGs). The NWGs are a vehicle for involving employees in the decision making, problem solving, planning, and day-to-day operations of the processes they work with on a regular basis. Employees can participate on several work groups at one time.

Employees can also participate on the Productivity and Policy Council (PPC). The PPC reports to management employee concerns and recommendations. The PPC is also empowered to make decisions, solve problems, and make improvements to specific PPC tasks. The task forces that the PPC establish and operate address specific employee issues. Productivity improvements are the end results from the PPC task forces.

Organization B, through the CIP, employs NWG and the PPC as means for involving and empowering employees in the organizations. CIP offers training to management as well as encouraging them to empower their employees to participate in the improvement process. The Annual Report Card effort, facilitated and administered by

Organization B, is another mechanism for involving employees in the grading and ranking of areas the organization needs to improve in order to enhance employee quality of work life.

Managing race/ethnicity and gender diversity management is a relatively new area for Organization B. Organization B realizes that in order for it to remain competitive and continuously improve, it has to utilize the talents of all employees. Therefore, Organization B considers its diversity efforts as a vital part of its CIP efforts.

Organization B has initiated a Diversity Steering Committee that represents all minorities in the organization. This steering committee tries to identify barriers that inhibit Organization B from being a good place for minorities to work. Organization B also has a Black Employee Advisory Committee and a women's group that seek and address issues relevant to making Organization B sensitive and aware of these groups' needs. Representatives from these groups are also members of the Diversity Steering Committee.

Organization B is also involved in several community programs that are geared toward informing the minority communities about the organization as well as assist Organization B in recruiting competent minority employees. Organization B's community programs involve sponsorship of End Roads, Females Achieving Mathematics Equity, outreach programs at two high schools, and a sponsor of the Black Engineer of the Year function.

Organization B's CIP training and internal/external training on team building addresses the issue of improving employee working relations. Also, Organization B uses communication in all forms as a means of improving employee and management relations.

In conclusion, Organization B wants to make an effort to manage race/ethnicity and gender diversity as a vital means of improving the performance of the organization. Organization B has already initiated mechanisms in the CIP such as NWGs and the PPC that empower, involve, and encourage all employees to utilize their full potential in

improving the processes that improve the quality of the services that the organization delivers to its customers.

4.3. Organization C

4.3.1. Overview of Organization C

Organization C was founded in Chicago in 1928. Its first product was a "battery eliminator" that permitted consumers to operate radios directly from household current in lieu of using batteries. In the 1930's, Organization C successfully commercialized car radios; established a home radio and police radio department; and began nationally advertising its products. Organization C changed its name in 1947, entered government work, and opened a research laboratory to investigate solid-state electronics.

By 1959, Organization C was a leader in military, space, and commercial communications; built its first semiconductor production facility; and was a rising force in consumer electronics. In the 1960's, Organization C expanded into international markets; thereby, shifting its focus away from consumer electronics. Presently, Organization C is in the high technology market in the commercial, industrial, and government fields. Its strengths are in electronics technology at both the component and equipment levels. Organization C's current products include two-way radios, pagers, telephoning systems, cellular telephones and systems, semiconductors, defense and aerospace electronics, automotive and industrial electronics, data communications, and information processing and handling.

Organization C has more than 100,000 employees worldwide and is among the US's top 50 largest industrial organizations based on total sales. Organization C has a global customer base and its electronic products are bringing the world closer together.

Organization C was a winner of the Malcolm Baldrige National Quality Award for its excellence in company-wide management of quality processes. Management in

Organization C stresses the importance of product quality, total customer satisfaction, short cycle manufacturing, and training and educating employees at all levels to improve manufacturing, marketing, and technical skills.

4.3.2. TOM Efforts in Organization C

Organization C's effort to create a quality culture began in 1981. During that year, Organization C's CEO called for a five-year, ten-fold improvement in the quality of all products and services. This improvement effort was called Achieving Total Customer Satisfaction (TCS) and it became Organization C's primary objective. At that time, Total Customer Satisfaction began to drive everything that was done in Organization C. Achieving TCS applied to all products and services in both manufacturing and non-manufacturing operations.

To reach its vision (TCS), Organization C established five key initiatives, beginning with Six Sigma Quality and Cycle Time Reduction. In Organization C's drive for perfection, it was committed to reaching a goal of 3.4 defect parts per million in each step of its processes. Near the end of this five-year effort, Organization C developed a process to quantitatively benchmark their manufacturing processes. By analyzing the benchmarking data, Organization C decided that a greater degree of improvement was required if it was going to achieve Total Customer Satisfaction. Therefore, in 1987, Organization C's CEO established a more aggressive quality goal, which was to improve product and service quality ten times by 1989 and at least one hundred fold by 1991 and to achieve Six Sigma capability by 1992. In order to achieve this change, the CEO of Organization C realized there must be a consistent message that involved changing the values and expectations of the workforce. Top management realized this message must be institutionalized in the procedures and policies that guide all actions and decisions within the organization in order for quality to become an integral component of the day-to-day

operations. One method Organization C used to institutionalize top management's quality message was giving all employees a small card to carry that states its most important objective and vision—*total customer satisfaction*. On the reverse side of this card, Organization C's key beliefs, goals, and initiatives are displayed. Table 4.10. shows Organization C's key beliefs, goals, and initiatives.

Management in Organization C believes that its internal beliefs, goals, and initiatives benefit the customers through the quality of the goods and services they receive. Management in Organization C also believes that it is essential to understand the customer's requirements--to know their businesses almost as well as it knows its own; that means listening to customers' problems, issues, and ideas. Management in Organization C states that knowing the customer's business also means knowing the factors that influence their business successes and then measuring oneself against those factors most critical to the customers' success. Each of Organization C's business units must develop customer-driven satisfaction indices using factors established by the customer. Based on the feedback received from customers, aggressive improvement goals are set.

In 1989, throughout all of Organization C, the goals of 10-times improvement by 1989 and 100-times improvement by 1991 were met in improving the quality level of products and services. In 1991, Organization C's manufacturing operations were at about 5.4 Sigma capability, or 40 parts per million short of the original goal. At the beginning of 1992, Organization C had reduced its in-process defect levels by 150 times during a five-year period. The reliability of the products that shipped were also improved. Organization C had saved an enormous amount of the cost of manufacturing; \$700 million during 1991 and \$2.2 billion since beginning its more aggressive approach to quality improvement in 1987. The key requirements for Organization C's simplified quality plan are:

Table 4.10. Organization C's Key Beliefs, Goals, and Initiatives

Key Beliefs--*how we will always act*

- Constant Respect for People
- Uncompromising Integrity

Key Goals--*what we must accomplish*

- Best in Class
 - *People*
 - *Marketing*
 - *Technology*
 - *Product: Software, Hardware and Systems*
 - *Manufacturing*
 - *Service*
- Increased Global Market Share
- Superior Financial Results

Key Initiatives--*how we will do it*

- Six Sigma Quality
- Real Cycle Time Reduction
- Product, Manufacturing, and Environmental Leadership
- Profit Improvement
- Empowerment for all, in a Participative, Cooperative, and Creative Workplace.

- Top down commitment and involvement
- Understand customer's needs
- Evaluate and improve processes
- Develop measurement systems to track progress
- Educate, reward, and communicate
- Set reach-out goals

These requirement goals are employed by Organization C to ensure that it's meeting and exceeding the customer's expectations in the quality of the products and services they receive.

4.3.2.1. Six Sigma Quality

Sigma is a statistical unit of measurement that describes the distribution about the mean of any process or procedure. Six Sigma is a defect rate of no more than 3.4 per million, statistically allowing for some variation in mean. At Organization C, Six Sigma is synonymous with quality. Organization C has designed a six step methodology for achieving Six Sigma. The Six Sigma process was used to sanction manufacturing and non-manufacturing improvement.

Organization C's Six Sigma quality program began in 1985 when a quality professional presented a paper describing the relationship of a product's early-life field reliability to the frequency of repair during the manufacturing process. The conclusion was, if during a product's manufacturing process one has to identify and fix the defects that occurred during this process, one misses defects that will affect the customer during the early life of the product. However, if one's designs are robust and the manufacturing procedures are controlled so that virtually everything works right the first time, one is

highly likely to ship products that will be free from failure in their early useful life. The objective of Six Sigma is to eliminate the cause of defects, not to identify and repair them.

4.3.2.2. Organizational Infrastructure for TCS

The infrastructure for TCS in Organization C includes the CEO Office, the Corporate Quality Department, the Corporate Quality Council, Group Sector and Division Quality Management, and the Total Customer Satisfaction Teams to continuously improve Organization C's quality efforts. Each of these groups, their relationship with each other, and their role in Organization C's quality effort will be discussed in this section. Figure 4.5. displays the infrastructure for TCS in Organization C.

The *CEO Office* is composed of the top officers in Organization C. The top officers in Organization C take the lead in promoting and communicating its quality effort throughout the organization. The role the CEO Office plays in Organization C's quality effort is:

- Formulating the vision and quality strategy
- Setting quality goals
- Attending operation and quality reviews
- Supervising the Quality System Reviews
- Being informed on developments in the TQM Process
- Keeping in touch with customers and suppliers
- Initiating new initiatives with regard to quality
- Attending the Corporate TCS Competition and presenting the CEO Awards
- Act as a "role model" and "spokesman" for quality

Goal-setting and decision making on quality issues is performed by the CEO Office in consultation with the Corporate Quality Department. In deciding on Organization C's

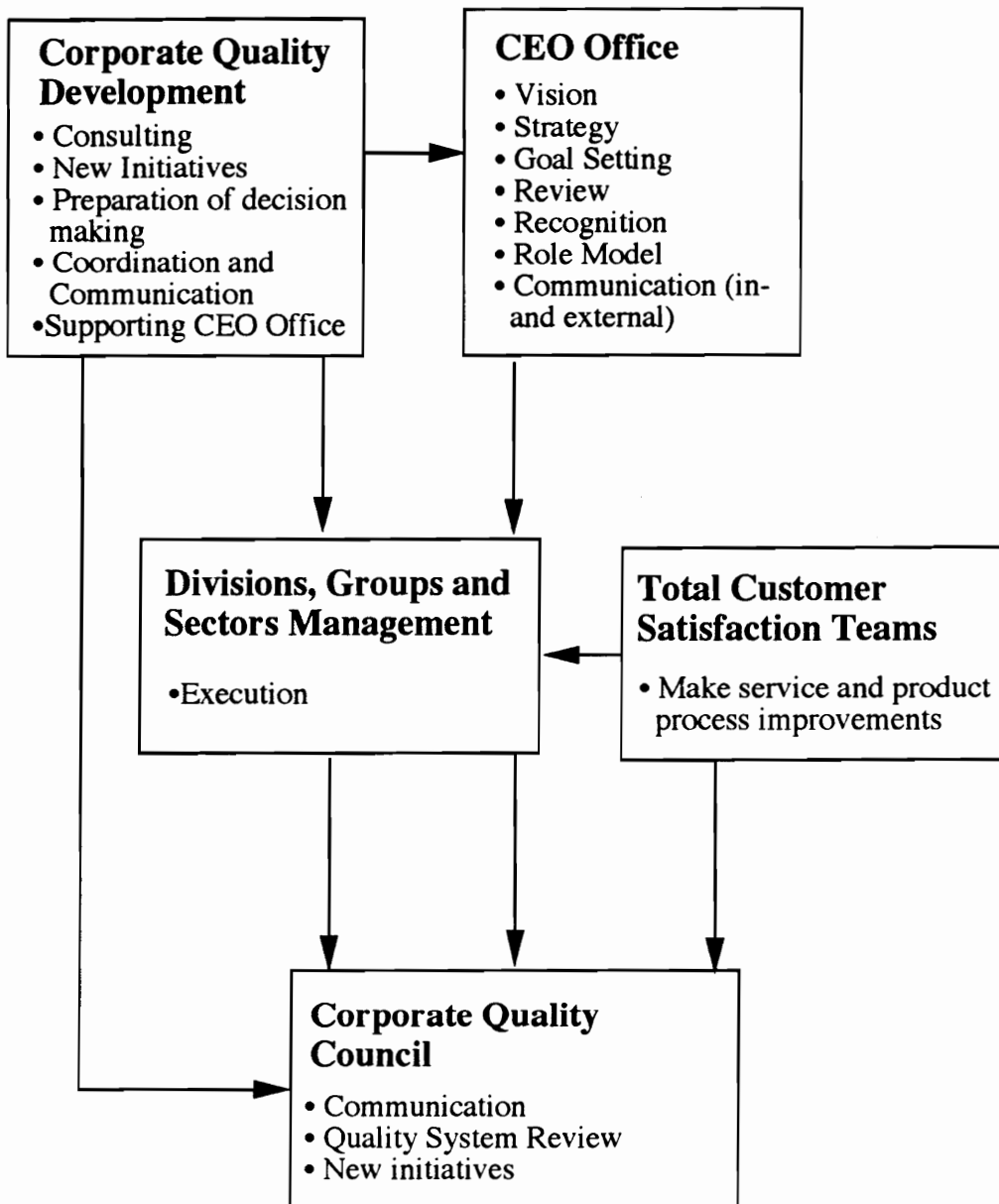


Figure 4.5. Organization C's Quality Infrastructure

corporate policy for quality, the CEO Office collaborates with the Corporate Quality Department upon which the Corporate Quality Department submits a proposal to be reviewed and approved by the CEO Office and the Policy Committee. The Policy Committee is formed by the CEO Office and general managers of the business groups and sectors.

The *Corporate Quality Department (CQD)* is formed by four managers and their secretaries. Their role in the quality effort is:

- Support of CEO Office and business units
- Consultation
- Initiation of new concepts
- Coordination of company-wide initiatives (e.g. Baldrige Application)
- Coordination of the supervision of the Quality System Review by the CEO Office
- Preparation of decision making with regard to quality issues by the CEO Office and Policy Committee
- Communication of company-wide quality information
- Coordination of the Corporate TCS Competition and the presentation of the CEO Quality Awards

The *Corporate Quality Council (CQC)* is a council comprised of the senior quality directors and quality managers of all business units. This council meets four times a year. The role of the CQC in the quality effort is to provide a platform for:

- Internal communication
- Information sharing from the CQD to business units

- Initiation of new quality issues
- Coordination and presentation of Quality Systems Reviews (QSR)

The CQC is responsible for the coordination of the QSR. The QSR is a formal two-yearly quality audit for all business units. The auditors are representatives of the quality community in Organization C. The QSR team leader is a member of the CQC.

Group, Sector, and Division Quality Management (GSDQM) is composed of local quality directors and quality (assurance) managers in each business unit. The GSDQM role is to execute the quality strategy in the business units. The GSDQM have daily contacts with the business operation, the suppliers and customers to deal with quality issues and problems. The quality managers report directly to the General Manager of the Business Unit.

Organization C's GSDQM make use of the *Total Quality Satisfaction Teams (TQS)* as a means of involving employees in quality improvement activities. TCS Teams are autonomous and self-managed. Members of the teams choose work related problems and work together on solving them as they see fit by using a six-step- problem-solving approach, brainstorming and analysis tools, technical skills, and team ability. After solving a problem, the TCS Team share its results and learning experiences with others (management and co-workers) by making presentations in its business unit.

To stimulate team membership, an annual company-wide TCS Competition takes place. The best teams of the different Groups and Sectors are delegated to take part in the company-wide TCS Competition.

Presently there are about 4,000 Total Customer Satisfaction Teams representing 40% of the workforce. Team members receive training in quality instruments, such as Statistical Process Control (SPC), brainstorming, and other analytic techniques. All

employees working on teams have the ability to use statistical tools to assist them in solving process problems and in making decisions about the processes.

4.3.2.3. Training and Education for TCS

Organization A set up extensive training in order to institutionalize a total customer satisfaction culture. However, just ten years ago, Organization C hired employees to perform set tasks that required very little thinking or education. Due to rapidly changing technology and increased competition, Organization C began to train and educate all of its employees in order to remain competitive in the global marketplace. New technology required workers to understand their jobs and how to use equipment and machinery to perform them. Therefore, education and training employees to perform their jobs had to be continuous and participative.

In Organization C, training and education is viewed as an integral part of each employee's worklife. Each employee is required to take a minimum of 40 hours of training each year. There are more than 1000 people involved in the training process in Organization C. Organization C spends in excess of \$70,000,000 each year on training excluding student salaries. 40% of this training cost is devoted to quality. More than 70,000 of Organization C's workforce or about 70% of the population have taken the TCS training course, *Understanding the Six Steps to Six Sigma* course.

At least 80,000 of Organization C's employees have taken the TCS problem solving course. This course trains employees in problem solving and its tools. This course is a necessity for TCS Team members. There are 19 levels of statistical process control taught in Organization C, so there is a level that everyone within the organization can understand no matter what education level an employee has.

Most employees keep going back taking courses related to quality not for just retraining but for improving and increasing their knowledge and skills. Other groups

outside of the Organization have been trained in quality at Organization C's private university. In a typical year, more than 100,000 hours are devoted to supplier training in quality-related subjects.

4.3.3. Endeavors that Constitute the Management of Race/Ethnicity and Gender Diversity

In Organization C, the CEO Office view of race/ethnicity and gender diversity is the organization cannot divorce itself from groups of individuals who may happen to look differently if it's going to be the best in its marketplace. This view is strictly a business view. It is not the right thing to do or the nice thing to do, it's based on survival.

In keeping with the CEO's vision, remaining competitive in its market, Organization C is trying to recruit and retain the best people in the workforce including race/ethnicity and gender diverse people. With the demographics of this country changing faster than forecasted, the people coming to Organization C's door looking for jobs look differently from what they used to. These diverse groups of people are drawn to Organization C because of its technological prowess. What Organization C knows from data generated from the Labor Department is that scientific and technically trained people will be fewer in numbers and businesses will become more scientific in the future. Therefore, people with scientific knowledge, including diverse employees, will have an advantage in the job market.

Another reason why Organization C is trying to recruit and retain race/ethnicity and gender diverse employees has to do with its attaining and retaining diverse customers. Just as the demographics of the workforce are changing, so is the face of the customer. Organization C wants to build customer satisfaction with its diverse customers through having a diverse workforce that understands their wants and needs. Table 4.11. displays the endeavors that Organization C uses to manage its race/ethnicity and gender diversity. Each of these endeavors will be explained in this section.

**Table 4.11. Endeavors that Constitute Organization C's
Management of Race/Ethnicity and
Gender Diversity**

Programs, Plans, Practices, and Policies	Education and Training	Initiatives, Tasks, Activities, and Infrastructure
1. EEO Program and Policy 2. Affirmative Action Program 3. Internal Readiness • Involves division managers delegating to human resources corporate diversity goals and accomplishing these goals through changing the interior of the division to reflect the diversity goals 4. Management Accountability • Division president being held responsible and accountable for achieving diversity goals in division 5. Parity of Women and Minorities in Management Ranks • Representation of women and minorities in the Organization based on national demographics for each minority group and for women in management ranks 6. Succession Planning • The targeting of potential minorities and women for mentoring, career development and grooming for top management positions	1. Training for Management (Does not include Diversity Training)	1. Community Relations • Objective is to establish a relationship with the diverse communities 2. Minority and Women Focus Groups • Identify barriers that hinder the mobility of minorities and women in the organization

4.3.3.1. Organization C's Model for Race/Ethnicity and Gender Diversity Management

Organization C's model for race/ethnicity and gender diversity is displayed in Figure 4.6. The first circle of Organization C's model represents management accountability. The second one is internal readiness and the third circle is community relations. Organization C is trying to impact a behavioral change among its management with the implementation of its race/ethnicity and gender diversity model. Each of the diversity model's three circles is explained in the following paragraphs.

As was mentioned previously, Organization C's CEO Office views diversity as a business issue. In order to achieve his diversity goals, the chairman of Organization C tells the business division presidents around the world why and what he expects them to do to meet the goal of increasing the number of race/ethnicity and gender diverse employees in key management positions. Figure 4.7. shows the infrastructure for Organization C's diversity effort.

Internal readiness in Organization C involves each division president going back to his division and delegating the accomplishing of the organization's diversity goal to the human resource team. The human resource team is told by managers what the diversity goal is for the organization and for each division and leaves it up to them to decide how to accomplish the goal. In trying to accomplish the goal for the division, the team researches what the division is doing to nurture the ideas of diversity, identifies the goals that increase the mobility of ethnic minorities and women, and identifies and eliminates the barriers that hinder this mobility. Each business division's human resource team uses focus groups consisting of women and ethnic minority employees to find out what the barriers are in the

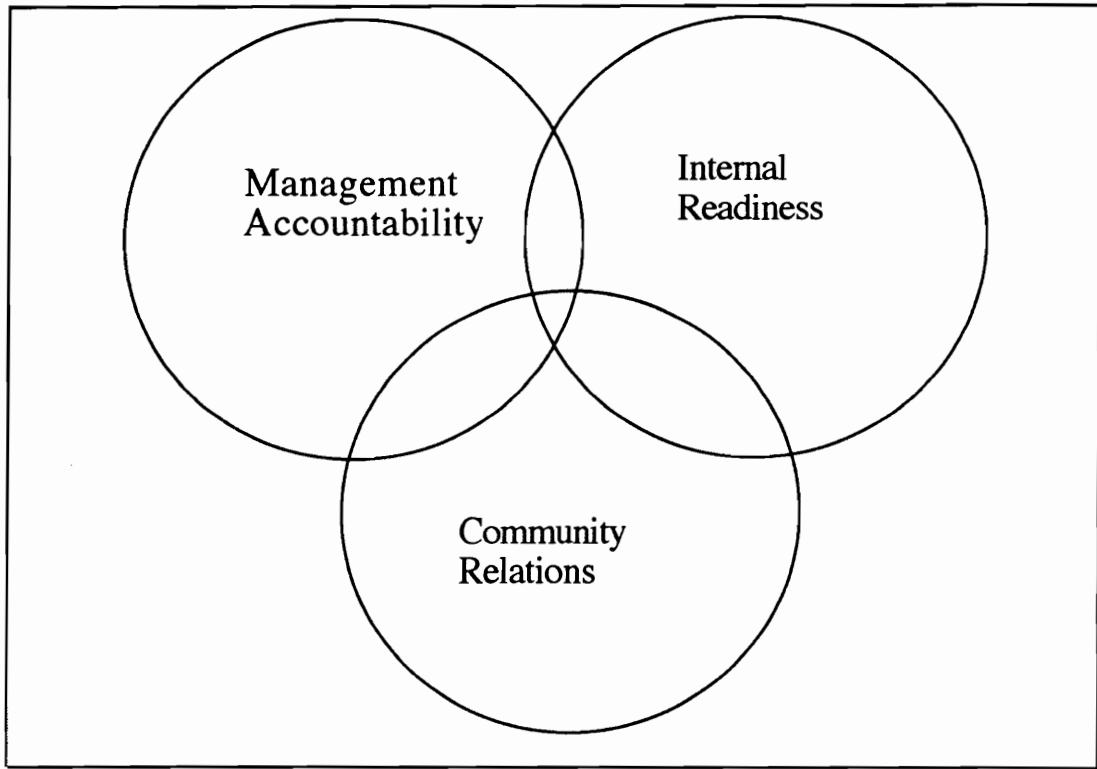


Figure 4.6. Company C's Model of Race/Ethnicity and Gender Diversity Management

division that hinder the mobility of race/ethnicity and gender diverse employees. The internal readiness process takes a long time since human resource teams may have to continuously inquire about barriers in order for race/ethnicity and gender diverse employees to take them seriously enough to be open and honest. The internal readiness fact finding process is done differently in each division. Each division uses focus groups to find out reasons why ethnic minorities and women lack upward mobility.

Within Organization C, internal readiness is used as a mechanism for forcing each division to change its interior by upwardly moving minorities and women into key

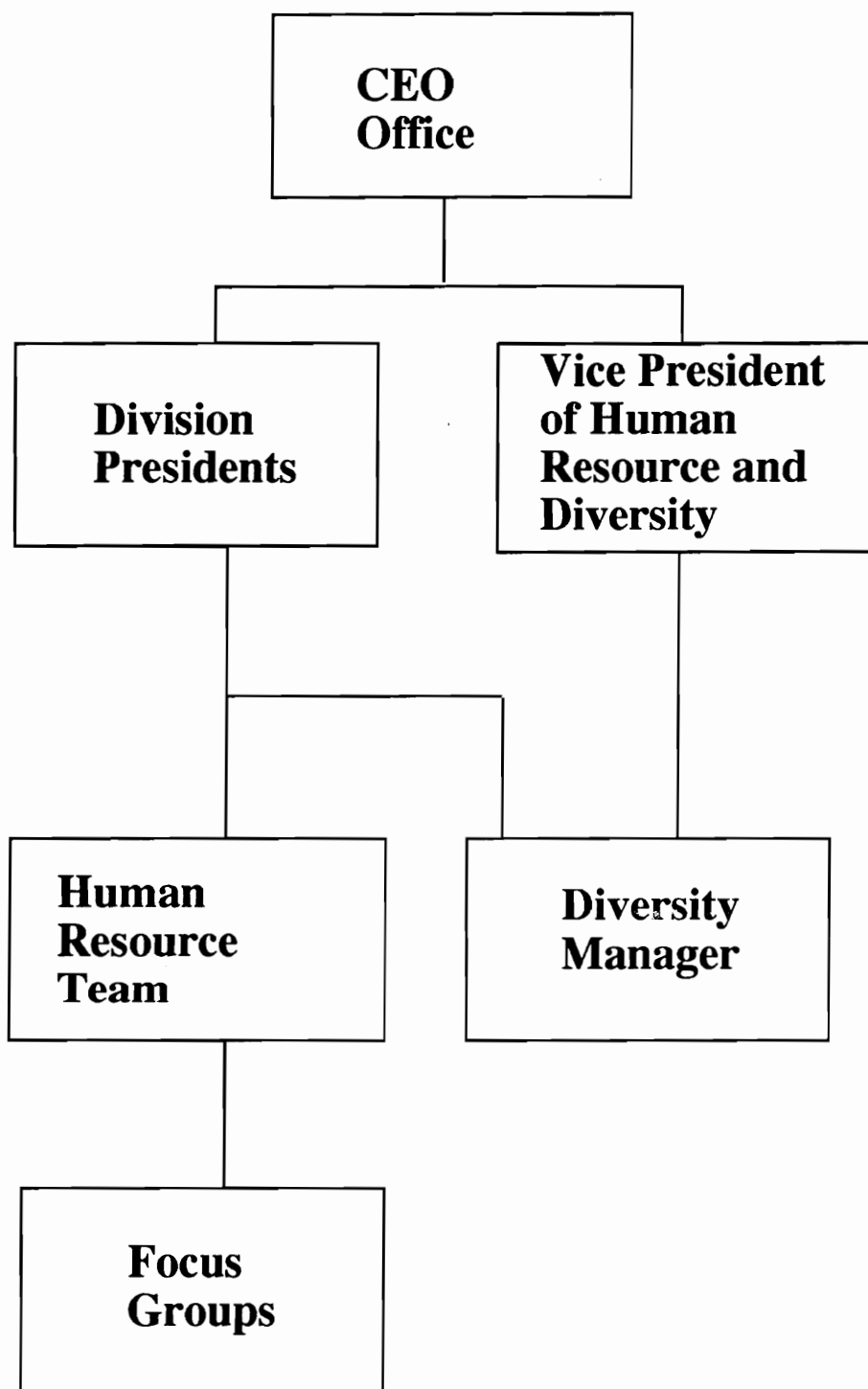


Figure 4.7. Organization C's Infrastructure for its Diversity Effort

positions. Each division president follows the progression toward goal accomplishment by keeping in close contact with the human resource team through regular communication.

It is each division president's job to run his business sector or group. It's the chairman's job to identify the key issue to be attacked; in this case, the issue is increasing the number of race/ethnicity and gender diverse employees in key positions. The CEO won't tell the presidents how to attack the diversity goal, but he will monitor their progress quarterly and hold them accountable, not their human resource teams, for achieving it. Each division president's job is to achieve results pertaining to the diversity goal in an effective and appropriate way.

Each division has diversity managers or directors who communicate with the Vice President of Human Resource and Diversity about what the division plans to do to accomplish the diversity goal. However, the Vice President of Human Resource and Diversity is not going to tell the division how to do it. Her job is to measure each division's results in accomplishing this goal.

Community relations is the third circle. There are several facets to community relations in Organization C. One facet of community relations involves choosing a corporate partner who is stronger in an area of diversity management and working with this partner to improve the area of weakness. Also, there may be areas of weakness in diversity management that the corporate partner is struggling with and where Organization C can be of some assistance.

Another aspect of community relations entails identifying and forming a partnership with powerful women, African American, and Hispanic community organizations. Organization C uses this partnership as a means of recruiting qualified people from the communities these organizations serve, while supporting their agendas. A purpose of Organization C forming these community partnerships is to get a better understanding of

what goes on in these communities while projecting a positive image so race/ethnicity and gender diverse people will want to come and work for the organization.

Organization C has extended its community relations process to include supporting the engineering program at a historically Black College financially and with equipment and materials. In supporting the historical Black College, professors from the College come to Organization C and get training on how to use the new equipment so they can train the students. An output of this program for Organization C is a continuous pipeline of capable and competent African American engineers who are willing to come work for Organization C.

In 1990, Organization C began a Minority Internship Investment Scholarship Program that involved giving each division money to bring in ethnic minority students to work for the summers. This program provided an opportunity for ethnic minority students to see what it's like to work in a major corporation. The university where the students attend receives from Organization C a two thousand dollar yearly scholarship for the student as long as the student works each summer for the organization. Each division now funds its own students and the number of students has increased from 58 to 93. 83% of the students from this program after graduation receive offers to work for Organization C. Organization C uses this program as a means of increasing the number of qualified minorities in the organization.

These three circles are interlocking. If Organization C only worked on two of these circles, for example management accountability and internal readiness, the model wouldn't work because these two processes only work on the interior of the organization. It doesn't matter if the interior of the organization is improved if the people the organization wants to recruit does not know it exists. Another example of the interlocking relationship between the three circles is Organization C working to achieve internal readiness and community relations and not management accountability. Not including management accountability

could result in each division president deciding not to work on the organization's diversity goal. The last example of the interlocking relationship between the three circles is Organization C working to achieve management accountability and community relations and not internal readiness. Not including internal readiness could result in there being no internal forces responsible for carrying out the necessary steps for the accomplishment of the diversity goal in the divisions.

4.3.3.2. Programs that Increase the Number of Diverse Employees in Management

Organization C has two programs that it uses to increase the number of minority and women employees in management positions, parity, and succession planning. Each of these programs will be explained in this section.

In 1991, the CEO of Organization C called all presidents of the division together to tell them that Organization C was going to diversify its management. Therefore, Organization C's mission statement and goal was altered to include *to be at parity in its management ranks for women, Blacks, Hispanics, Asians, and Native Americans by year end 1996*. The words that are important to Organization C's mission statement are: 1) parity; 2) management; 3) women, Blacks, Hispanics, Asians, and American Indians. Parity is defined as Organization C having the same representation of the percent of ethnic minorities and women in particular functional areas designated by government census.

Organization C's focus on parity in the management ranks is due to the organization's management having the responsibility for changing the organization's culture and management practices. The CEO Office in the organization believes culture and management practice changes have to be both behavioral and physical. There is also the belief that it is easier to change a culture and management practices when you have people in positions of power who support the change. Therefore, when race/ethnicity and gender diverse employees are in key management positions, they can make sure the right changes

are instituted to make diversity management happen within the organization. These changes in the culture and management practices are then filtered down into the corporation.

The third part of the mission is the identification of the groups the mission effects such as women, Blacks, Hispanics, Asians, and American Indians. Even though diversity is broader than race and gender, Organization C has chosen to manage these elements of diversity before attacking other areas.

Most large organizations use succession planning systems as a means of ensuring that there is someone being developed and mentored to take over key positions in the organization. Each year the CEO Office goes through a meeting process with the sector and group presidents to talk about the organization's structure, what it will look like in the future, and who will replace each of them. Also discussed is the employees in the different divisions that have the most potential.

Organization C calls its succession planning system the Organization Management Development Review. This system drives the mobility and numbers for women and ethnic minorities in management as well as pull all management through the organization. In Organization C, the EEO people and the succession planning people work together.

Each division's parity has to match Organization C's parity numbers for each racial group in each category. Therefore, if any division goes over the parity percentage in one group, it doesn't matter, because counting ceases when parity is reached in a group. Therefore, a division is not at parity unless they are at parity for women and each ethnic minority group. Once a division has achieved parity for women and each minority group, it has met the organization's diversity goal for these groups in the management ranks.

Succession planning for women and ethnic minorities for each division is done by the president of each division telling Corporate Human Resources and Diversity who the capable women and ethnic minorities are, where they are today relevant to their job, what

training and developmental experiences they will receive to help prepare them for future key management positions within the organization, and what job moves they will make to get there. Corporate Human Resources and Diversity, in collaboration with the president of each division, designs a road map for each of the persons identified. Every year at succession planning, a check of each individual's personal road map is made to make sure he or she is on target. If an individual does not stay on target from year to year, the individual's division president will have to explain why to the CEO Office. Succession planning is how Organization C gets race/ethnicity and gender diverse employees integrated into the fabric of the organization at all the levels.

4.3.3.3. Training for Diversity Management

The corporate staff for Human Resource and Diversity at Organization C does not believe that cultural training solves the problems caused by racism and sexism. The CEO Office's bottom line toward cultural training is that people know it's wrong to discriminate and they do it anyway unless held accountable for doing it. However, if an individual's success is directly related to the success of those he or she discriminates against, then the individual will do whatever is necessary to make sure that those discriminated against are successful. Divisions can make the decision to do cultural training, but Corporate does not provide it.

When Corporate offers training to divisions in Organization C to help them achieve their diversity goals, its not cultural or diversity awareness training. The training that is offered is geared toward assisting divisions in achieving the organization's strategic plan. The training may involve helping managers improve their management skills, gender training, negotiation with employees, dealing with conflict, counseling and coaching employees, and career path management.

4.3.3.4. Driving the Cultural Change for Diversity Management

In Organization C, succession planning and the Three Circle Model is its only Corporate initiative for race/ethnicity and gender diversity management. Therefore, when Organization C says its culture needs to be changed, it's done via the management level. Organization C is driving its diversity goal from the top down beginning with the Chairman and the CEO Office. The Vice President of Human Resource and Diversity's first six months on the job was spent talking to the three top people in Organization C about the consequences of not addressing diversity management. This education process was important because these three powerful people could not drive the cultural change necessary for diversity management in the organization if they did not understand it.

The next people in the organization to be educated about the issue of diversity management was the policy committee. These people report to the three top people in the organization. The diversity goal was driven down through management by making the policy committee (division presidents) accountable for achieving the goal in their divisions. The division presidents drove the diversity goal down even further into their divisions by making sure the human resource team did whatever was necessary to achieve Corporate's diversity goal in the division. Organization C's diversity management process is not practiced horizontally in the organization; it is practiced vertically so it can reach the people in the different levels of management who drive the change within the organization.

4.3.4. Elements that Relate to both TQM and Race/Ethnicity and Gender Diversity

Table 4.12. displays the means Organization C uses to achieve the elements that relate to both TQM and race/ethnicity and gender diversity management. These elements are working together (dealing with conflict); employee empowerment, participation, and involvement; and communication (sharing of information). Each of these elements will be explained in these sections.

**Table 4.12. The Means Organization C Uses to Achieve Elements
that Relate to both TQM and Race/Ethnicity and
Gender Diversity Management**

Working Together (Dealing with Conflict)	Employee Empowerment, Involvement, and Participation	Communication (Sharing of Information)
1. Management training • Group development, team building, and conflict management 2 TCS/quality team trained in team building and interpersonal conflict 3. Teams compete for TCS/TQM Award 4. Conflict resolution chain • Employee/Employee • Employee/ Supervisor • Employee/ Supervisor's Boss • Employee/Top Management • Employee new work area	1. TCS/Quality Teams 2. Participative Management Program	1. Meetings • Top Leader /Senior Level Managers. • Top Leader/ Expanded Staff • Supervisors/Employee 2. Other methods of communication • Information Board

4.3.4.1. Working Together (Dealing with Conflict)

Team building training is initiated and done in each division based on the division's needs. Each division has Total Customer Satisfaction Teams who work together to solve problems and make decisions about the processes they work with on a daily basis. If the TCS Teams request team building training or training to assist them in dealing with team or interpersonal conflict, then the training is provided. Each division has its own training organization as well as access to outside consultants, if needed.

It is up to management within in each division to work out conflict between employees or between employees and management. In dealing with conflict between

employees, management takes the general approach of talking to each employee individually to find out what the conflict is and then together as a group to resolve it. If employees still cannot get along then they can be transferred to other departments within a division or to another division.

Organization C has an open door policy when dealing with conflict. Conflict between employees and management that can't be resolved through discussion, can be discussed by the employee with his or her manager's boss. If the conflict still cannot be resolved, then the employee can transfer to another department or division. Also, if an employee is not satisfied with his division management's resolution to a conflict the employee has with other employees or management, then he or she can go to the CEO to discuss it further. If an employee has worked at Organization C for more than 10 years, termination has to be agreed upon by the CEO.

4.3.4.2. Employee Empowerment, Participation and Involvement

Organization C empowers its employees through its Total Customer Satisfaction Teams. These teams have the power to decide what problems need to be solved, processes to be improved, and decisions that need to be made in their day-to-day work environment. These teams motivate employees to get involved in the quality improvement effort. Employees are empowered to make short and long-term plans involving their work environment.

In order to improve its organizational performance, Organization C had to motivate and involve the entire workforce in this effort. Organization C began its Participative Management Program (PMP) in the 1960's. This effort was more of an incentive plan than participative management plan. In the late 1970's, Organization C developed an effectiveness plan that played a key role in its competitive success. Its goal for PMP was to make all US employees eligible by the middle of the 1980's. The intention of this

participative system was to get all employees involved improving the performance of the organization.

Employees participated on Working Committees; therefore, making active contributions of investments in terms of their time, energy, and experience in improving the organization. Organization C created a bonus plan to compensate employees for their time and ideas. If a division made money, then the employees and management were compensated accordingly.

Operating on the same principles as PMP, two years ago Company C changed the name of its participative management effort to Return on Net Assets (RONA). PMP bonuses were tied to the revenue of the division and RONA's bonuses are based on the return on net assets of each division. In order to make a profit, each division has a number it has to achieve based on industry standards. If the division beats that number, then profits go up and the company shares that profit. An employee can make up to 40% of his or her salary in bonus money.

Company C also has a profit sharing plan for US employees. Company C puts away 11% of the profits generated in the US in a long term profit sharing plan. Company C shares all profits with its employees since they have an invested interest in making sure the organization continuously improves and remains competitive in the global marketplace through the RONA plan and profit sharing.

4.3.4.3. Communication (Sharing of Information)

Each division is responsible for sharing information with its employees. Each division has meetings where it communicates information to their employees about what's going on in the division, including quality efforts. The president of each division has regular meetings with their executives, who in turn meet with the people they are in charge of. There are newsletters located in central locations within each division that are accessible

to all employees. Employees are free to take a copy of this newsletter. Also, there is an information table located in each division that updates employees on Organization C's quarterly earnings.

4.3.5. Summary

Organization C has saved tremendous amounts of money through its quality efforts. The money saved could not have been accomplished without Organization C including all of its employees in the quality improvement effort. Organization C included its employees in the quality improvement effort through training them about quality, statistical processes, and problem solving. The success of Organization C's quality efforts was based on the Organization empowering and involving its employees in participating in problem solving, decision making, and making improvements to the processes they work with on a daily basis. However, employees would not have been successful in their empowerment effort if they had not been sufficiently trained.

Encouraging team involvement and competition contributes to Organization C's increased innovativeness and creativity that is used to improve processes and the quality of the goods Organization C produces for its customers and the services provided to internal customers. Teams generate their own agenda for process improvements within their work area. They work autonomously to solve problems and make decisions.

Organization C has confronted the diversity issue by increasing the number of women and minorities in key positions within the organization. This goal is being achieved through succession planning and parity. Organization C believes that Cultural and Management System changes are made and instituted by management, not employees.

Organization C has incorporated the Three Circle Model which includes management accountability, internal readiness, and community relations as means of ensuring that it recruits and retains the best and brightest employees. In internalizing the

Three C Model, Organization C makes division presidents accountable for achieving the organization's diversity goals. The president then delegates to the human resource group the process of making sure the diversity goal is achieved in the division. Organization C also increases its visibility in the race/ethnicity and gender diverse communities by sponsoring and supporting various community organizations, sponsoring summer internship programs, providing scholarships for minority college students, and by providing equipment and materials to a historical black college. Organization C's goal is to increase its number of competent race/ethnicity and gender diverse employees through the community relations process.

In conclusion, Organization C's efforts to increase the management of race/ethnicity and gender diverse employees in the management ranks in order to improve the quality and level of decision making and problem solving has contributed to the improvement of Organization C's quality efforts. Also, educating and training, empowering, and involving all employees in the quality improvement effort has made Organization C distinguishable as a world-class organization.

4.4. Organization D

4.4.1. Overview of Organization B

Organization D's 65,000 employees are located in 14 states in the Midwest and internationally in the United Kingdom, Czechoslovakia, Hungary, and Moscow. Organization D's larger organization, before deregulation, had a rich quality heritage. Walter Shewhart who developed the Plan-Do-Check-Act cycle worked for a laboratory within the larger organization. Joseph Juran was the Chief Industrial Engineer at one of the larger organization's plants.

Deregulation of Organization D's larger organization occurred between 1984 and 1986. Organization D presently provides integrated communications, entertainment and

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Deregulation of Organization D's larger organization occurred between 1984 and 1986. Organization D presently provides integrated communications, entertainment and

information services over wire and wireless networks in selected local markets worldwide. Organization D has designed a new cable that is being used by other communication organizations.

All of its employees are aware of and have been exposed to Organization D's diversity management efforts. About 90% of its workforce has taken some type of diversity training or seminar. Organization D has small offices scattered throughout the Midwest. It has managed to send its training staff to central locations throughout the Midwest in order to expose its employees to its diversity management efforts. Also, Organization D communicates its efforts in everything it does; therefore, it's difficult for employees not to be aware of it.

In Organization D, the management of race/ethnicity and gender diversity is a necessity because, due to its location, most of the people it employs are minorities and women. Organization D is located in areas in the Midwest that are highly populated with minorities. Therefore, management within Organization D realized that it was going to have to implement endeavors that would allow diverse employees to feel accepted and respected in the organization. Management realized that if these employees felt accepted, they would be willing to contribute 100% to their work. To do this, Organization D solicited outside consultants in the area of diversity management as well as benchmarking itself against other organizations who were attempting to manage diversity in order to devise and develop a plan to assist it in the management of diversity, including race/ethnicity and gender diversity.

4.4.2. TOM Efforts in Organization D

The total quality management effort in Organization D is called Total Quality System (TQS). TCS is a way of guaranteeing customer satisfaction through involvement of all employees in the production and delivery of quality products and services. The goal of

TQS is to improve internal and external customer satisfaction. The TQS process has three components: Engagement System, Policy Management, and Process Management. An example of the TQS process is displayed in Figure 4.8. The Engage System provides a structured environment for employees to:

- Improve quality of products and services through problem solving
- Develop skills and abilities
- Promote communication and teamwork
- Enhance quality of worklife

Policy Management targets the accomplishments of breakthrough by concentrating company efforts and resources on a few priority issues to:

- Increase performance levels
- Improve communication of company and department direction
- Attain broad participation in the development and achievement of long-term and short-term goals

Process Management requires application of the Plan-Do-Study-Act (P-S-C-A) philosophy to activities necessary to meet the needs of and expectations of the customer. The goals are to:

- Achieve consistency in daily work and proved results
- Clarify individual contributions toward achieving customer satisfaction
- Improve daily operations (continuous improvement)
- Maintain gains achieved through improvement projects

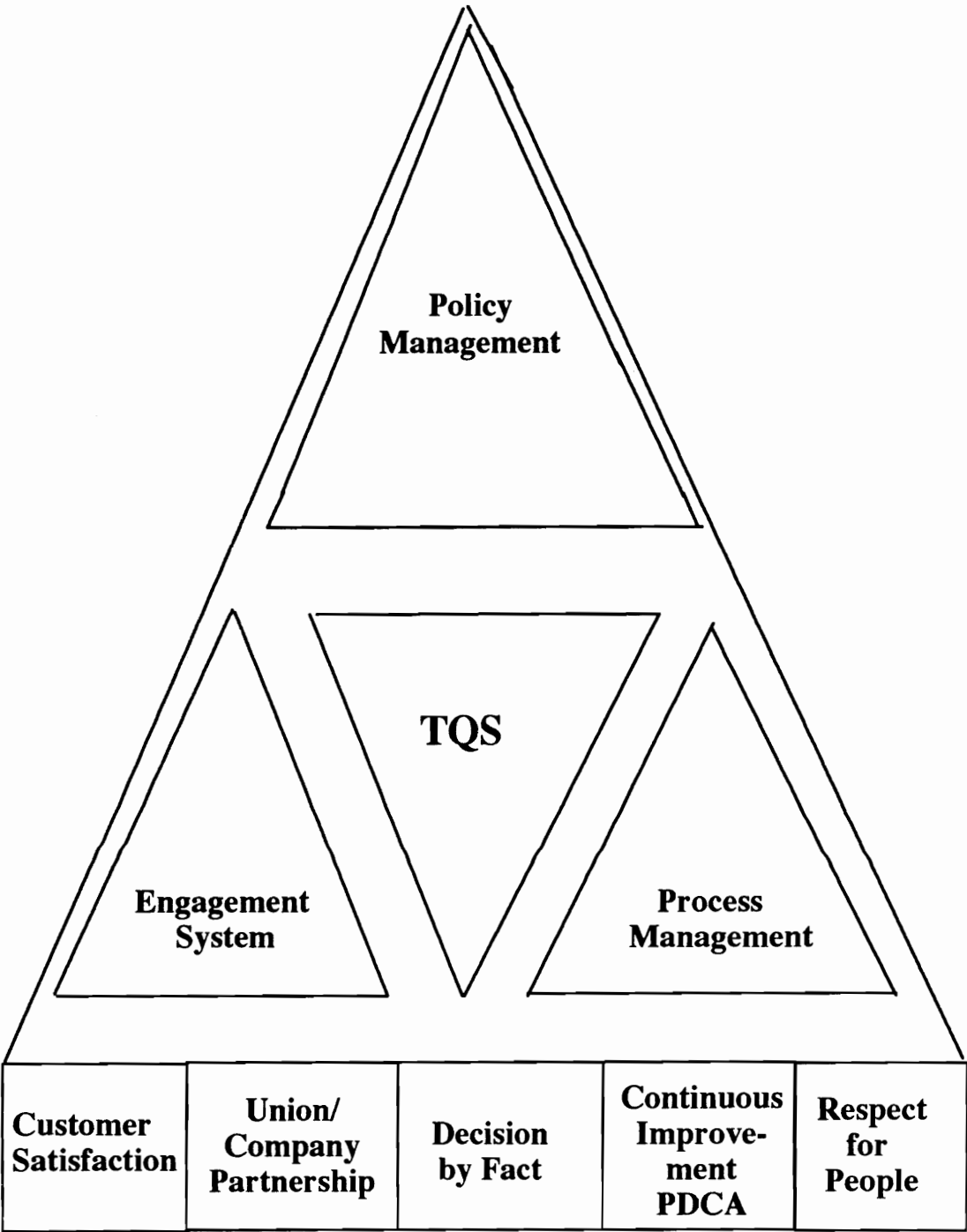


Figure 4.8. The Total Quality System Process

Organization D's core course for TQS is *Connecting People*. Organization D is in the process of administering this course to all of its employees. Organization D's vision says *by the year 2000 we want to be the finest Organization in the world at connecting people with their world*. Figure 4.9. displays Company D's Guiding Principles. The *Connecting People* course addresses why Organization D is involved in TQS. It also addresses the understanding of the environment, Organization D's industry, the nature of the national and global business community, and the effect this will have on people in Organization D's business. Organization D's mission is *for us to be a leading provider of integrated communications, entertainment, and information services over wire and wireless networks in selected local markets worldwide*.

Organization D will achieve its vision by sectioning the guiding principles into four areas: customer focus, quality driven, people partnership, leadership commitment, and alignment. Management in Organization D believes these four areas, the education system, the award and recognition system, the involvement system, and communication are responsible for moving the organization forward. It is from this perspective that Organization D operates its business.

Organization D, in its people partnership, is analyzing its customers to see if they care about the services it delivers and the products it produces. Organization D is concerned about the behavior it represents to the world. Does it display that employees within the organization care? Organization D wants to show its customer that it embraces pluralism and diversity. Organization D wants the world to know that all of its employees play an active role in making sure customers are satisfied.

Customer focus is the basis for Organization D's quality program. At Organization D, the customer determines full customer satisfaction. Organization D is working rapidly to develop new products and services to keep customers satisfied. Therefore, Organization D's quality effort is customer driven. The leaders within Organization D are responsible

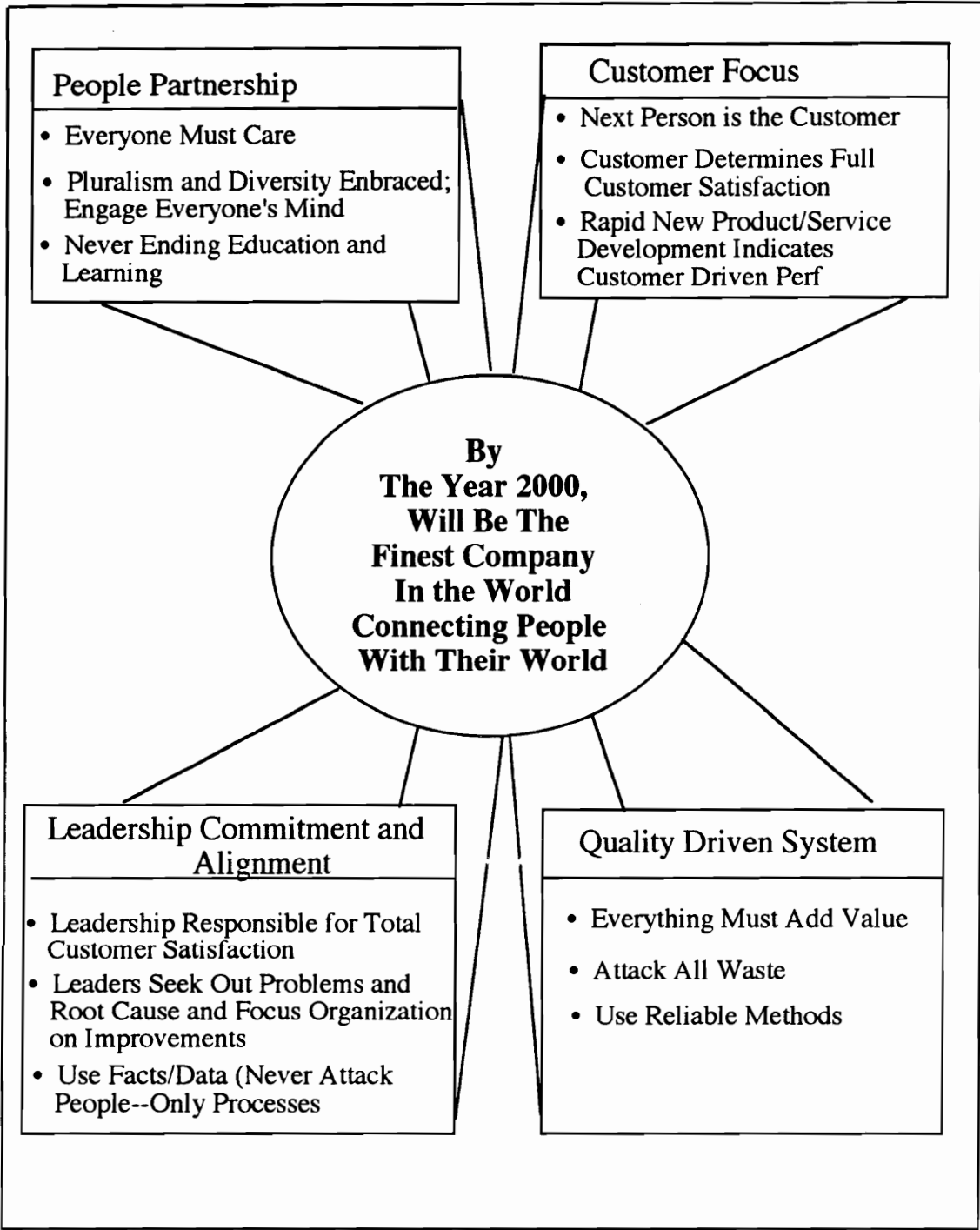


Figure 4.9. Company D's Guiding Principles

for total customer satisfaction. Leaders seek out problems, route causes, and focus the organization on improvement. In seeking out problems, Organization D relies on facts and data to find faults within processes; people are never attacked or blamed for problems.

4.4.2.1. Background on Organization D's TQS Efforts

In the early 1980's, the Communication Workers of America (CWA) had an enlightened view about the workplace of the future. The CWA is the Union for telephone workers and is an active part of Organization D. The CWA wanted to change the way management and laborers did business together. They wanted management and labor to work together in teams. Management and the CWA, in 1980, created an entity known as Quality of Work Life (QWL) for the telephone business. This was the genesis of quality circle activity in the phone business in the United States. QWL activities lasted five or six years in the phone business. People were working together in teams but not accomplishing much.

In 1987, the contract between the union and Organization D's management focused on employee involvement. The employee involvement effort symbolized the relationship management wanted to have with its employees in the Organization. Management wanted to get employees more involved in decision making efforts in the workplace. In 1991, Organization D began a quality effort that was being initiated simultaneously with its employee involvement effort.

Organization D's early approach to total quality management was based on Juran's application of quality implementation which included quality councils and task forces. Teams called joint councils were assigned by the quality council. They consisted of both management and union leadership.

4.4.2.2. Deployment of TQS in Organization D

The present quality effort at Organization D focuses on systems thinking. This system thinking point of view has led Organization D to view the total quality system as an operating system. Organization D uses a couple of key deployment strategies to deploy its TQS effort within the organization. One is a course that introduces the TQS Concept to the organization. This is done through the *Connecting People* course. The second deployment strategy is called core processes. The third deployment strategy is policy management. Figure 4.10. displays Organization D's TQS deployment strategies.

All managers are required to take the *Connecting People* course. However, managers are being trained to teach this course to employees. Eventually, Organization D wants all employees to have had the *Connecting People* course. The Chief Planning Officer and the Chairman of the Board were the first people to teach this course. With top management involved in teaching this course lets employees see that they are committed to this effort as well as ensuring that the course will be deployed downward within the organization.

Presently, not all employees within Organization D participate in the TQS effort. There are several areas within Organization D that have not gotten to the point where they have problems that are linked to the TQS effort or the employees just haven't been trained regarding TQS. However, everyone in the organization is touched by the communication vehicles that talk about what Organization D is doing in its TQS effort. One of these communication vehicles is the Town Hall meeting. Employees know about the TQS effort from the Town Hall meeting that the President of the organization has every month via television with all of his employees. During this meeting, employees can ask the President about the TQS effort.

The core process deployment strategy involves defining Organization D's core business. It is a wiring diagram rather than a flow chart because the entire system is

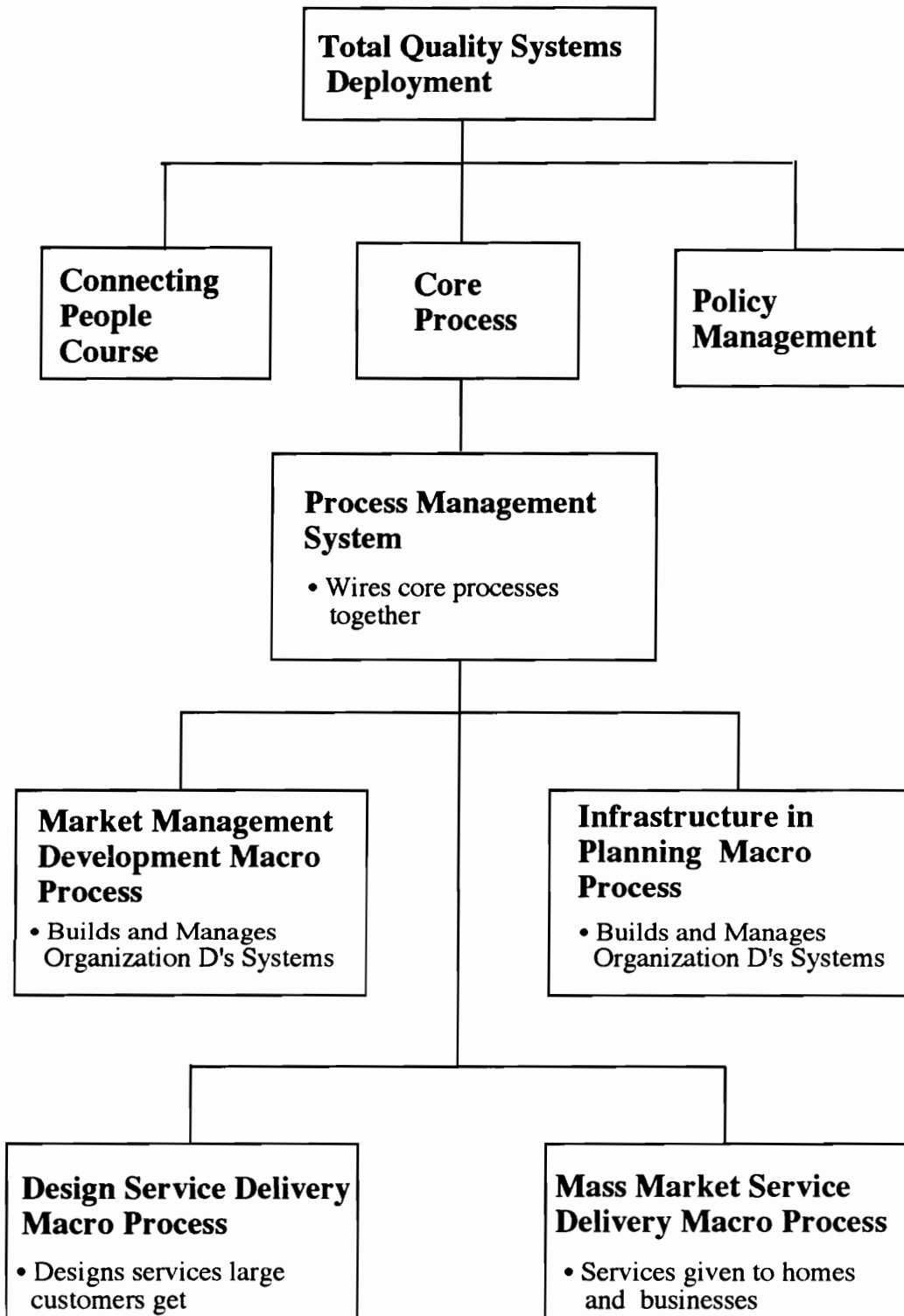


Figure 4.10. Organization D's Deployment Strategies for TQS

energized all of the time. This system counts for 63% of Organization D's business, costs, and employees. The core process is broken down into macro processes. There is the market management development macro process and the infrastructure in planning macro process. These two macro processes are where Organization D builds and manages its system. The design service delivery macro process deals with large customers. Through this service delivery process, Organization D custom designs the service that each large customers get. The mass market service delivery macro process deals with the services given to homes and businesses.

A team of vice presidents and executive directors lead these process efforts. Each team is responsible for diagramming, at the lower level, their piece of the action. The diagramming and accountability for these processes has led to the creation of a process management system. The process management system is how the core process is wired together. Each process has outcome indicators and process indicators which translate into outcome indicators for the lower level process description. Micro teams are formed to solve problems that inhibit the system from achieving its outcome indicators. These teams use a continuous improvement journey to solve problems.

The policy management deployment strategy used at Organization D is similar to policy deployment used in Japan. In 1993, Organization D's Chairman issued three policies to be deployed within the organization. The first policy is that Organization D will strengthen the trust relationship between management and all employees. This covers every area of the organization including all business units. The second is the customer service policy that says Organization D is going to improve its customer service quality and achieve a rating of 75% on its customer service measurement by the year 1994. The third policy is to improve the product quality by a 3-fold reduction in new product development cycle.

Organization D's core process and policy management efforts are now part of its business structure. These TQS efforts are no longer separate; they are Organization D's management system. The President of Organization D spends seven days a month visiting business units doing quality reviews. At the end of each visit, a letter is written to the organization telling what was good about its quality initiative and what needs to be improved.

4.4.2.3. Quality Teams and TQS Training in Organization D

As mentioned in Section 4.4.2.2., there are teams formed to work on micro processes. These micro teams are also responsible for solving core process problems within their business/work unit. Employee Involvement Quality (EIQ) is responsible for helping work units set up quality teams to solve problems.

One means of doing quality training at the micro level, which is within the business units, is by letting EIQ trainers who are a centralized training group take their quality skills training out in the field to train employees. EIQ teaches the *Connecting People* course, the quality core course, to all employees. EIQ is considered consultants in the area of TQS. EIQ reports to the quality group. It is part of the TQS umbrella. An objective of EIQ is to provide tools and techniques to employees to help them effectively practice TQS.

Presently, EIQ trains teams in areas requested by the manager and team. Areas teams are trained in are: team problem solving, quality, process management, team building/group development, interactive behavior, pluralism, empowerment, conflict resolution, benchmarking, best practices, statistical analysis, process control, work flow processes, etc. EIQ also does a needs analysis for the teams they are working with to see what training they need to help them successfully accomplish their goal as a team. EIQ facilitates and consults for teams as needed. Therefore, keeping in line with Organization D's just-in-time training, the business units train employees as they need it.

4.4.2.4. Quality Team Recognition

This year, 1993, Organization D had a recognition event where teams presented their improvement projects. The officers for the Organization were there and the teams showed them what they had done. Presentation rooms were set up and teams were given time slots to present their projects. The officers were the audience and they moved from room to room to listen to presentations. During these presentations, the teams discussed how they had implemented the problem solving process and the process management process. The officers praised each team's efforts.

There was a banquet that night and the Chairman of the organization presented each team member with a crystal award. Each team received a photographed picture of themselves and the Chairman framed in a wood diamond with 1993's date. Also each team member received a video cassette of the awards ceremony to share with their family. This will be a yearly event.

4.4.3. Endeavors that Constitute the Management of Race/Ethnicity and Gender Diversity

Organization D calls its diversity management effort pluralism. Section 2.2.3. of this dissertation comprehensively defines pluralism. However, pluralism is a process by which both minority and majority culture members adopt norms from both groups. Organization D, in 1987, came up with the idea to call its diversity efforts pluralism. The objective of its pluralism effort was to eliminate discrimination, racism, and sexism in the organization. In order to do this, Organization D had to define what it stands for. It also developed a vision to fight discrimination in the organization. The reason why its diversity management effort was called pluralism is because management sees pluralism as being broader and more encompassing than diversity. Pluralism in Organization D's workforce encompasses not only race/ethnicity and gender, but it addresses issues pertaining to work experience, education, sexual orientation, and a host of other differences workers bring to

the workplace. Table 4.13. displays the endeavors that Organization D uses to manage its race/ethnicity and gender diversity. Each of these endeavors will be explained in this section.

Table 4.13. Endeavors that Constitute Organization D's Management of Race/Ethnicity and Gender Diversity

Programs, Plans, Practices, and Policies	Education and Training	Initiatives, Tasks, Activities, and Infrastructure
1. EEO Program and Policy 2. Affirmative Action Programs 3. Policy that states the organization will not tolerate non-pluralistic behavior, language, or writing 4. Succession Planning to place minorities and women in key positions 5. Special program to train and place minority women in key positions 6. Employee Accountability • Attending Diversity Training tied to all employees bonuses and performance appraisal	1. Sexual Harassment Training 2. Diversity Training for all Management 2. Diversity and Awareness Training for all employees 3. Diversity Training for suppliers and vendors 4. Management Training to Improve Employee/ Supervisor Relations	1. Celebration of special activities and events related to women and minorities 2. Pluralism Council • Does community outreach in locations with diverse organizations 3. Pluralism Resource Groups • Represents all diverse groups • Provides feedback to top management regarding diverse employee issues and needs 4. Community Relations

Employees have to understand that pluralism and diversity management are business strategies used by Organization D. It is a bottom line issue. Everyone within the organization has to be committed to achieving pluralism. Managing pluralism is a means for the organization to compete in its marketplace. If Organization D is going to remain

competitive it will have to sell itself in order to get the best employees with the skills they need to compete in the marketplace.

4.4.3.1. Infrastructure for Pluralism Management in Organization D

The infrastructure for pluralism management in Organization D will be outlined in the following paragraphs. Figure 4.11. shows the infrastructure for pluralism management in Organization D.

The officers in Organization D in partnership with the Human Resource Department, formed a pluralism resource group as a forum for talking about issues pluralistic employees encounter in the organization. These pluralism resource groups have chapters located in different regions throughout the Midwest. They elect a regional representative to meet with the Senior Vice President of Human Resources and the Director of Pluralism. The employee resource groups consist of the Alliance of Black Professionals, Voice of Hispanics, Voice of Many Feathers/American Indian, Organization D Women, and other pluralistic groups. There are eight resource representatives that meet six times a year with the Senior Vice President of Human Resources and Director of Pluralism. The Senior Vice President of Human Resources and the Director of Pluralism get the pluralistic group's inputs on policies and guidelines affecting them.

Once a year in December, the eight resource group members, along with the Senior Vice President of Human Resources and the Director of Pluralism, have an informal dinner with the top officers in Organization D. The next morning the resource group members spend time with the top officers talking about different issues pertaining to pluralism in the organization. The objective of this meeting is for the top officers to understand the issues facing the different resource groups in the organization and to get their input on how to solve these issues. This meeting is a way for top officers to exercise their partnership with the resource groups.

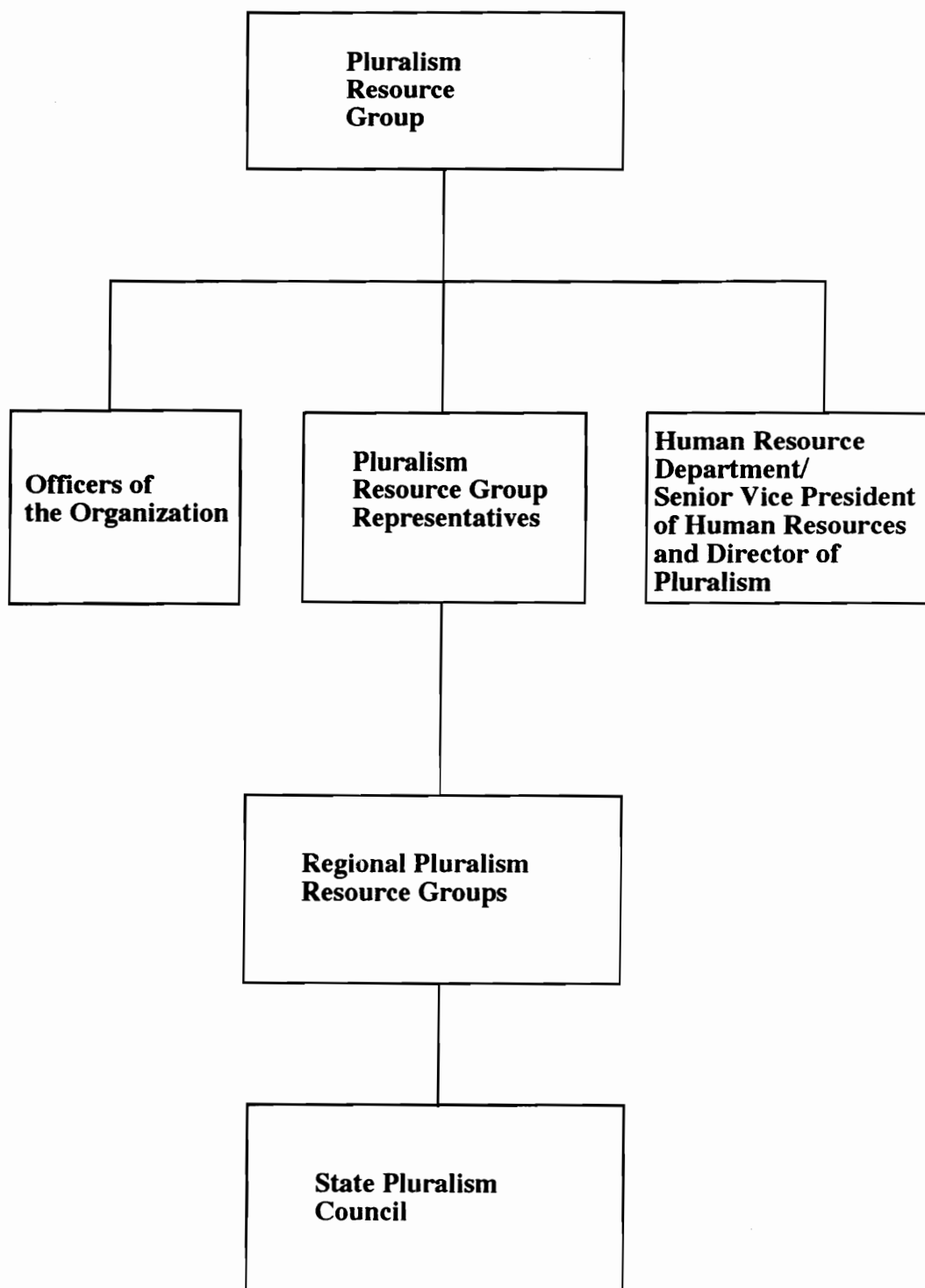


Figure 4.11. Organization D's Infrastructure for Pluralism Management

Another role of the resource representatives is to review training modules for the Center for Professional Development to see if they meet the needs of the pluralistic groups. The resource representatives critique these modules and send them back either requesting changes or stating they are all right.

Each of the fourteen states where Organization D is located has a pluralism council that is made up of the different pluralistic groups in each of the fourteen states. Each pluralistic group elects a member to represent the group on the state pluralism council. The council is responsible for putting together the pluralistic awareness calendar which outlines the activities and celebration for each pluralistic group's awareness month. An example of this is the celebration of Black History month and arranging of activities for employees to partake in during this month. The pluralism council is involved in doing community outreach work with other organizations regarding diversity. The council is also involved in helping identify a facilitator for diversity training.

4.4.3.2. Evolution of Organization D's Pluralism Training

When Organization D was still a part of its larger organization, it did high impact training to try to eliminate racism and sexism in the workforce. Outside consultants taught these workshops. Employees went to these workshops for five consecutive days in the evenings. This high impact training was very confrontational and was considered shock therapy. It involved performing activities that shocked white employees into realizing their prejudices. One way the consultant did this was by challenging the participants' prejudices.

Evolving from the shock therapy training, Organization D pulled in outside consultants to facilitate its Black and White workshops and Hispanic and White workshops. These workshops looked at and evaluated the problems that White people were having with these groups and the problems these groups were having with White

people. The basis of these workshops was to identify problems between these groups and white people while coming up with ways to improve their relations.

In 1986-87, Organization D, in its pluralism training efforts, decided to pull all of the "isms" together and address them as a single issue even though, in this country, the history of racism and sexism are different. Organization D brought in a facilitator to perform Pilot Studies to see if racism and sexism could be understood and their differences dealt with in the same training. Presently Organization D has a one day and a three day training course that addresses both racism and sexism. Employees who work in Organization D facilitate the one day training session. The objective of this workshop is to help employees understand that everyone brings differences to corporation. The three day training course goes beyond that objective.

It is expected for all employees within Organization D to attend the one day training course. All managers/leaders are expected to attend the three day training course. However, the three day training course is not restricted to managers; employees can also attend on a volunteer basis. All of the employees who are committed to "walk the talk" have been to this training. Through these training courses, Organization D is trying to help employees understand that everyone brings differences to the organization and those differences are to be valued and respected.

4.4.3.3. Pluralism Training at Organization D

The one day diversity training session involves two facilitators. The facilitators in the one day training are employees who are from any level within the organization who have shown a commitment to pluralism and have passed the facilitator training course. The one day training session is called *The Value of Human Diversity*. This training session gives employees an opportunity to learn about pluralism--why it is a valued organization

policy and its benefits to both individuals and work groups. In this workshop, employees interactively examine the effects that labeling and stereotyping have on the work group.

Organization D uses four facilitators for the three day training session. The facilitators for the three day training session are internal and external. The best facilitators from the one day training session are chosen to facilitate the three day training session. Internal facilitator training lasts six days for both the one and three day training sessions. The three day training session is called *Leading a Diverse Workforce*. This training session focuses on the skills and attitudes required for leaders to lead a diverse workforce. This workshop examines the necessity for pluralistic leadership as well as discusses the various kinds of discrimination found in the workplace, the mechanics of power, and an opportunity for self-assessment and planning for leadership in the future.

All employees are expected to attend the one day training session. Attending this training session is tied directly to each employee's bonus that is received for achieving performance objectives. The union supports this one day training session and encourages all its members to attend. This same principle holds true for managers as well. Managers' bonuses are directly tied to their attending the three day training session.

All supervisory managers are required to attend *Managing for the '90s*. This course explains that recognition of success in the '90s requires more effective leveraging of "the human asset"--employees. Organization D recognizes that the supervisory manager is critical in assuring that each employee brings their full talents, commitment, and creative efforts to the organization. In this course, supervisory managers will learn about skills to coach employees to a higher performance.

4.4.3.4. Changing to a Pluralistic Culture

Even though Organization D is one of the leaders in diversity management, management at Organization D feels that it's like the continuous improvement process--one

never reaches utopia but is always striving to get better. Management at Organization D feels that there are other drivers in changing the culture to a pluralistic one other than diversity and awareness training. The other drivers of culture are policies, practices and procedures; employee involvement; and communication. Communication will be discussed in great length in Section 4.4.4.1.

Organization D will not tolerate the practice of non-pluralism in its organization. Any employees exemplifying this behavior can be fired. Organization D's policy on pluralism is exemplified in its mission and vision, guiding principles, and business strategies. The practice of pluralism is a way of life at Organization D. When employees and managers write memos, do presentations, speak in or to groups as well as speak one-on-one, they have to be aware of not using non-pluralistic terminology in their modes of communication. If employees or managers are not pluralistic in their oral or written communications, behavior, or actions, any employee within the organization has an obligation to make these individual(s) aware of their non-pluralistic behaviors or actions. Employees exhibiting non-pluralistic behavior or actions can be mandated to take pluralism training. Therefore, pluralism becomes a part of the culture because everyone is conscious and aware of being pluralistic in their actions, behaviors, and words.

Organization D is also sensitive to the pluralistic behaviors of outsiders who come to consult in the organization, solicit business as vendors or suppliers, or give presentations or seminars. These groups or individuals are told ahead of time about Organization D's policy of not tolerating non pluralistic behavior. If consultants, potential vendors or suppliers, or presenters use non pluralistic behavior, language, actions, or writing, they will be enlightened of their offense. Organization D will suggest they take their three day diversity training course so they can understand its culture. Organization D offers a course to educate its suppliers about pluralism. Businesses who deal with

Organization D on a regular basis are aware of its policy on pluralism and behave themselves accordingly. Some have even taken the three day training course.

4.4.3.5. Pluralism Practices and Procedures

This section will highlight some practices and procedures that Organization D uses in its pluralism efforts. Some of these practices and procedures are its human resource practices, succession planning, and program to advance women of color. Each of these practices and procedures will be discussed in this section.

The following paragraphs exhibit examples of Organization D's human resource practices. One of the practices that human resources stresses when utilizing a job search firm to find possible job candidates is that Organization D wants a pluralistic mix of candidates. This does not mean the organization will not select a white male, but it wants a pluralistic mix of candidates to select from. Organization D has some search firms who do not understand this; therefore, they are no longer used by Organization D.

Human resources has done a good job of recruiting at colleges that have a pluralistic student body. The result of this practice has been that 50% of Organization D's interns and new hires have been minorities, 25% have been white women; 75% of its college interns and hires have been women and minorities. This just didn't happen, Organization D had to make a conscientious effort to recruit these pluralistic groups.

Organization D uses succession planning as a means of placing minorities and women in key management positions in the organization. Those employees with potential are targeted and their careers are developed so that in five to ten years they are in key positions within the organization. However, in key positions where there is not a slate of potential pluralistic candidates, pluralistic employees are trained, mentored, and compete against each other for these positions.

Organization D designed a program to advance women of color based on their skills and their knowledge. It has had a need to seek out and train women of color for key positions within the organization. When management in organization D realized that a specific group within its pluralism umbrella needed the opportunity to advance within the organization that opportunity was set forth.

4.4.4. Elements that Relate to both TQM and Race/Ethnicity and Gender Diversity

Table 4.14. displays the means Organization D uses to achieve the elements that relate to both TQM and race/ethnicity and gender diversity management. These elements are working together (dealing with conflict); employee empowerment, participation, and involvement; and communication (sharing of information). Each of these elements will be explained in these sections.

4.4.4.1. Working Together (Dealing with Conflict)

EIQ train teams when needed on team building, group development, and conflict resolution. Every team has access to this type of training. All managers have access to this type of training. When dealing with conflict that cannot be rectified from what was learned from conflict resolution training, an employee is free to discuss conflicts he or she is having with other employees or management with top management. Organization D has an open door policy. Also, if employees aren't satisfied with management's resolution to their conflicts, they can file grievances with the union.

4.4.4.2. Employee Empowerment, Participation, and Involvement

In the 1989 labor contracts, a workplace process called Employee Involvement became part of Organization D's corporate language. Management at Organization D believes that employee involvement is a means for providing quality products and services

to its customers. Employee Involvement in Organization D is defined as "employee influence and participation in the decisions that affect the individual, the corporation, or the customer." In employee involvement in Company D, decisions and actions take in a setting characterized by people:

Table 4.14. The Means Organization D Uses to Achieve Elements that Relate to both TQM and Race/Ethnicity and Gender Diversity Management

Working Together (Dealing with Conflict)	Employee Empowerment, Involvement, and Participation	Communication (Sharing of Information)
1. Management training • Group development, team building, and conflict management 2. TQS/Quality teams trained in team building, group development, and conflict resolution • Teams compete for TQS Award 3. Conflict resolution chain • Employee/Employee • Employee/ Supervisor • Employee/Union Grievance • Employee/ Supervisor's Boss • Employee/Top Management • Employee new work area	1. TQS/Quality Teams 2. Pluralism Resource Group	1. Meetings • Top Leader /Senior Level Managers. • Top Leader/Employees 2. Other methods of communication • Newspaper • Magazine • Electronic and Voice Mail • Flyers • Posters • Information Boards

- working together in an atmosphere of trust;
- making mutual decisions, at all levels, that respect the concerns and interests of all those involved;
- sharing responsibility for the problem solving process; and
- sharing the rewards of achieving common goals.

In Organization D, employee involvement includes empowering employees at every level to contribute and participate in decisions that improve their daily work, either individually or in teams. Employee involvement empowers employees to be responsible, trustworthy, and capable of making contributions when equipped with the necessary authority, information, and training. Employee, union, and management role in the employee involvement continuum in Organization D is displayed in Table 4.15.

Employees are empowered to solve problems, make decisions, and improve their day-to-day work processes through their involvement in TQS and teams. Pluralistic employees are empowered through their involvement in resource groups to give management input on how to best make decisions and solve issues pertaining to them. Also, resource groups are empowered to help leaders eliminate barriers that hinder pluralistic groups from contributing 100% to improving the performance of the organization.

4.4.4.3. Communication (Sharing of Information)

Management in Organization D feels communication is essential to driving change within the organization. Organization D uses communication as a mechanism to remind employees of what Organization D stands for. Management stresses to its employees its

Table 4.15. Employees, Union, and Management Role in the Employee Involvement Continuum

Company	Employees	Unions
Managers involve work groups directly in decisions that affect them. Communications are very open and free flowing with employees and union. Consensus format is used in decisions. Boundaries are explored and agreed upon.	Employees are directly involved in day-to-day decisions that impact them. They work in teams and make contributions to their group and the business as a whole.	Union is proactive on key issues of shared concern. Union positions are incorporated into decisions.
The work group (managers, union, employees) is involved in work design, exploring innovative ideas for improved service, product design, work flow, quality and productivity. The group is also involved in setting its own goals and how to best meet them.	Employees address "real" organizational issues, getting regular information about the organization's performance. They have a sense of responsibility and responsiveness to the direction of the organization. Mutual goals are emphasized.	Union goals and values are incorporated. Partnership occurs on the job with union leaders closer to their members. Diversity is valued and encouraged.
	Distinction between managers and occupational employees has lessened and a strong interdependent relationship exists. More management and union time is spent on strategic issues and the group handles the day-to-day issues of the business. Very flat organization.	
	Union, management, and employees all have integral roles and see each other as partners in business. Groups are semi-autonomous. They collectively perform most of the traditional functional activities in the group itself. The entire group operates as a miniature business. Managers provide linkage.	

pluralistic practices and ideas on a regular basis. This is done primarily at the monthly Town Hall meetings. During these meetings employees can ask the President of the organization about its pluralism policies and practices.

Organization D uses a variety of mechanisms to inform employees about what it is doing and the changes that are taking place. Mechanisms used in Organization D for communication are the newspaper, magazine, electronic and voice mail, flyers, posters, business unit meetings, and Town Hall meetings. The monthly televised Town Hall meetings are a very sophisticated form of communication between employees and the President of the organization. Employees can ask the President live questions during these meetings, or they can fax or send questions electronically to him. The President will answer the questions that are sent to him by fax and electronic mail during the next Town Hall meeting.

Information boards that inform employees about what's going on in the organization can be found in employee lounges and lunch rooms. The monthly magazine, also informs employees about what the organization is doing. News concerning new business ventures and restructuring and downsizing are shared with employees through these communication mechanisms.

4.4.5. Summary

Organization D views pluralism as a major component in achieving the goal of Total Quality System (TQS) which is improving customer satisfaction for both internal and external customers. Organization D sees its employees as being its number one resource. The organization knows it won't be able to compete in the global market unless it utilizes the full potential of all of its employees, so that is an objective of its pluralism efforts. Pluralism is a business strategy that is interwoven into the fabric of Organization D.

Organization D offers a wide variety of training to its employees. All employees are expected to take the one day diversity training, and all managers are expected to take the three day diversity training. This training enlightens employees about what pluralism is, the need for Organization D to effectively manage pluralism within the organization, and the eliminating of stereotyping and labeling so employees can embrace the pluralism philosophy.

Organization D has an Employee Involvement Quality (EIQ) training department that delivers just-in-time training to teams working on problem solving and improvement efforts of core processes. EIQ training offers teams a variety of training to improve their efforts of accomplishing their group objectives. Training ranges from connecting people and problem solving to team building and project resolution. Training is a major component in Organization D's becoming a pluralistic and quality culture.

Organization D's pluralistic beliefs have changed the way it does business with its suppliers, vendors, and outside consultants. These groups now realize they have to be sensitive to Organization D's pluralistic practices or they won't be able to do business there. However, Organization D is willing to train these groups in their pluralistic practices so they can understand its culture.

Organization D has already seen its organization change its culture to a pluralistic one. This was done by driving the culture change with policies, practices, and procedures pertaining to pluralism, employee involvement, and effective communication. Organization D has implemented policies, practices, and procedures that has enabled pluralistic groups to become a major contributor to Organization D's success. These policies, practices, and procedures have helped eliminate barriers and address issues that have hindered pluralistic groups from being all they can be in the organization. Once barriers are eliminated and issues are addressed, employees respect and value the differences these groups bring to the

organization; Organization D can utilize these employees' talents to move the organization forward.

Organization D has also initiated an employee involvement effort with employees and unions that empower employees to contribute to problem solving, decision making, and improvement efforts in their day-to-day work processes. Not only does Organization D realize the employees' input is vital in their improvement efforts, they have equipped their employees with the tools and techniques to properly do this through extensive training.

Lastly, Organization D has a sophisticated network where employees can communicate directly with the President of the organization and ask him questions pertaining to TQS or pluralism. This open means of communication lets the employees know what's important to Organization D and how important they are to the organization and its success.

In Organization D, the practice of pluralism is a way of life. Employees know that they must exhibit pluralistic behavior in order to fit into Organization D's pluralistic culture. The practice and management of pluralism in Organization D is a means of the organization unleashing undiscovered talents, innovations, and creativity which will enable it to remain a leader in its marketplace.

4.5. Comparison of Each Organization's Endeavors that Constitute Race/Ethnicity and Gender Diversity Management to Those of Other Organizations' in the Study

In this section, data representing the similarities and differences in each organization's endeavors that constitute race/ethnicity and gender diversity management are compared to those of the other organizations in the study. Organization A is compared to Organizations B, C, and D (See Tables 4.16., 4.17., and 4.18.). Organization B is

compared to Organizations C and D (See Tables 4.19. and 4.20.) and to A (See Table 4.16.). Organization C is compared to Organizations D (See Table 4.21.) and to A and B (See Tables 4.17. and 4.19.). Organization D is compared to Organizations A, B, and C (See Tables 4.18., 7.20., and 4.21.). Data from these comparisons will be interpreted in Chapter 5.

4.5.1. Similarities and Differences in Programs, Plans, Practices, and Policies

All four organizations have programs, plans, practices, and policies that target equitable and fair treatment, career development, and advancement of minority and women employees. All four organizations have Affirmative Action (AA) and/or Equal Employee Opportunity (EEO) programs and policies. As a part of its AA program, Organization A has established a special program (Special Emphasis Program) for women and minority that affords them training, education, career development, and mentoring opportunities. These opportunities are a means for improving these groups' job performances as well as preparing them for career advancement within the organization. Also, Organization A has an Advisory Committee that works in conjunction with the women and minorities who participate in the special programs. The responsibility of the Advisory Committee is to cultivate personal and professional development initiatives for these groups as well as act as consultants to them.

Organization D has a special program to train and place minority women in key positions within the organization. This program was established because management realized that this particular pluralistic group had not been afforded the opportunities for advancement in the organization. Therefore, Organization D designed a program to advance minority women based on their skills and competence. Both Organizations C and D have succession planning practices that target career development and mentorship for competent minorities

Table 4.16. Comparison of Organization A's Endeavors that Constitute Race/Ethnicity and Gender Diversity to Those of Organization B

SIMILAR ENDEAVORS		DIFFERENT ENDEAVORS	
Organization A	Organization B	Organization A	Organization B
1. EEO Program and Policy	1. EEO Program and Policy	1. Special Emphasis Program • Address employment matters unique to women and minorities such as: 1) recruitment, mentoring, and other types of developmental programs 2) target women and minorities for educational and training programs that help them achieve the qualifications they need to perform their jobs and to be promoted	1. Diversity Steering Committee • Represents all minorities in organization • Makes recommendations to top management regarding diversity programs and needs
2. Affirmative Action Programs • Solve problems women and minorities encounter in workplace	2. Affirmative Action Programs • Promote a diverse work force • Increase number of women and minorities	2. Advisory Committee • Develop initiatives specifically designed for personal and professional development of minorities and women	2. Management Accountability • Diversity goals tied to Management bonuses
3. Sexual Harassment training	3. Sexual Harassment Training	3. Training Programs for Supervisors and Management that target fair Treatment of all Employees. (Includes EEO Training)	
4. Community Relations/ Outreach • Objectives are 1) create awareness and consciousness of community organizations about opportunities for minorities and females 2) set up a meaningful relationship and rapport with these community organizations for mutual gains	4. Community Relations • Make community aware of interest in recruiting women and minorities	4. Free Seminars on current Issues facing the Organization	
5. Celebration of special Activities and Events related to Women and Minorities, (e.g., Black History Month)	5. Celebration of special Activities and events related to Women and Minorities; (e.g., Black History Month)		
6. Women's Program and Minority Program • Members of these programs are targeted for training, education, career development, recruitment, and mentoring	6. Black Employee Advisory Committee and Women's Organization • assist in making company a better place to work by keeping top management informed of issues regarding them		

Table 4.17. Comparison of Organization A's Endeavors that Constitute Race/Ethnicity and Gender Diversity to Those of Organization C

SIMILAR ENDEAVORS		DIFFERENT ENDEAVORS	
Organization A	Organization C	Organization A	Organization C
1. EEO Program and Policy 2. Affirmative Action Programs • Solve problems women and minorities encounter in workplace 3. Training Programs for Supervisors and Management that target fair Treatment of all Employees. (Includes EEO Training) 4. Community Relations/ Outreach • Objectives are 1) create awareness and consciousness of community organizations about opportunities for minorities and females 2) set up a meaningful relationship and rapport with these community organizations for mutual gains	1. EEO Program and Policy 2. Affirmative Action Program 3. Training Programs for Management (Does not include Diversity Training) 4. Community Relations • objective is to establish a relationship with the diverse communities	1. Celebration of special Activities and Events related to Women and Minorities 2. Women's Program and Minority Program • Members of these programs are targeted for training, education, career development, recruitment, and mentoring 3. Special Emphasis Program • Address employment matters unique to women and minorities such as: 1) recruitment, mentoring, and other types of developmental programs 2) target women and minorities for educational and training programs that help them achieve the qualifications they need to perform their jobs and to be promoted 4. Advisory Committee • Develop initiatives specifically designed for personal and professional development of minorities and women 5. Free Seminars on current Issues facing the Organization 6. Sexual Harassment Training	1. Internal Readiness • Involves division managers delegating to human resources corporate diversity goals and accomplishing these goals through changing the interior of the division to reflect the diversity goals 2. Management Accountability • Division president being held responsible and accountable for achieving diversity goals in division 3. Parity of Women and Minorities in Management Ranks • Representation of women and minorities in the organization based on national demographics for each minority group and for women in management ranks 4. Succession Planning • The targeting of potential minorities and women to groom for top management positions 5. Minority and Women Focus Groups • Identify barriers that hinder the mobility of these groups in the organization

Table 4.18. Comparison of Organization A's Endeavors that Constitute Race/Ethnicity and Gender Diversity to Those of Organization D

SIMILAR ENDEAVORS		DIFFERENT ENDEAVORS	
Organization A	Organization D	Organization A	Organization D
1. EEO Program and Policy 2. Affirmative Action Programs • Solve problems women and minorities encounter in workplace 3. Sexual Harassment Training 4. Celebration of special Activities and Events related to Women and Minorities 5. Women's Program and Minority Program • Members of these programs are targeted for training, education, career development, recruitment, and mentoring 6. Training Programs for Management that target fair treatment of all employees. (Includes EEO Training) 7. Community Relations/Outreach	1. EEO Program and Policy 2. Affirmative Action Programs 3. Sexual Harassment Training 4. Celebration of special Activities and Events related to Women and Minorities 5. Pluralism Council • Does community outreach in locations with diverse organizations 6. Diversity Training for all Management 7. Community Relations	1. Special Emphasis Program • Address employment matters unique to women and minorities such as: 1) recruitment, mentoring, and other types of developmental programs 2) target women and minorities for educational and training programs that help them achieve the qualifications they need to perform their jobs and to be promoted 2. Advisory Committee • Develop initiatives specifically designed for personal and professional development of minorities and women 3. Free Seminars on current issues facing the Organization	1. Diversity and Awareness Training for all Employees. 2. Diversity Training for Suppliers and Vendors 3. Policy that states the Organization will not tolerate non pluralistic Behavior, Language, or Writing 4. Succession Planning to place Minorities and Women in Key Positions 5. Special Program to train and place Minority Women in Key Positions 6. Attending Diversity Training tied to all Employees Bonuses and Performance Appraisal 7. Pluralism Resource Groups • Represents all diverse groups • Provides feedback to top management regarding diverse employee issues and needs

Table 4.19. Comparison of Organization B's Endeavors that Constitute Race/Ethnicity and Gender Diversity to Those of Organization C

SIMILAR ENDEAVORS		DIFFERENT ENDEAVORS	
Organization B	Organization C	Organization B	Organization C
1. EEO Program and Policy 2. Affirmative Action Programs • Promote a diverse work force • Increase number of women and minorities 3. Community Relations • Make community aware of interest in recruiting women and minorities 4. Management Accountability • Diversity goals tied to management bonuses	1. EEO Program and Policy 2. Affirmative Action Programs 3. Community Relations • objective is to establish a relationship with the diverse communities 4. Management Accountability • Division president being held responsible and accountable for achieving diversity goals in division	1. Celebration of special Activities and Events related to Women and Minorities; ex. Black History Month 2. Black Employee Advisory Committee and Women's Organization • Assist in making the organization a better place to work by keeping top management informed of issues regarding them 3. Diversity Steering Committee • Represents all minorities in organization • Makes recommendations to top management regarding diversity programs and needs 4. Sexual Harassment Training	1. Training Programs for Management (Does not include Diversity (Training) 2. Internal Readiness • Involves changing the interior of the division to reflect the diversity goals 4. Parity of Women and Minorities in Management Ranks • Representation of women and minorities in the organization based on national demographics for each minority group and for women in management ranks. 5. Succession Planning • The targeting of minorities and women to groom for top management positions 6. Minority and Women Focus Groups • Identify barriers that hinder the mobility of minorities and women

Table 4.20. Comparison of Organization B's Endeavors that Constitute Race/Ethnicity and Gender Diversity to Those of Organization D

SIMILAR ENDEAVORS		DIFFERENT ENDEAVORS	
Organization B	Organization D	Organization B	Organization D
1. EEO Program and Policy 2. Affirmative Action Programs • Promote a diverse work force • Increase number of women and minorities 3. Sexual Harassment Training 4. Community Relations • Make community aware of interest in recruiting women and minorities 5. Celebration of special Activities regarding Women and Minorities 6. Black Employee Advisory Committee and Women's Group • Assist in making the organization a better place to work by keeping top management informed of issues regarding them 7. Diversity Steering Committee • Represents all minorities • Makes recommendations to top management regarding diversity programs and needs	1. EEO Program and Policy 2. Affirmative Action Programs 3. Sexual Harassment Training 4. Community Relations 5. Celebration of special Activities and Events related to Women and Minorities 6. Pluralism Council • Does community outreach in locations with diverse organizations 7. Pluralism Resource Groups • Represents all diverse groups • Provides feedback to top management regarding diverse employees issues and needs	1. Management Accountability • Diversity goals tied to bonuses	1. Diversity and Awareness Training for all Employees 2. Diversity Training for Suppliers and Vendors 3. Policy that states the Organization will not tolerate non pluralistic Behavior, Language, or Writing 4. Succession Planning to place Minorities and Women in Key Positions 5. Special Program to train and place Minority Women in Key Positions 6. Recruit potential Interns and Employees from campuses with a pluralistic Student Body 7. Attending Diversity Training tied to all Employees Bonuses and Performance Appraisal

Table 4.21. Comparison of Organization C's Endeavors that Constitute Race/Ethnicity and Gender Diversity to Those of Organization D.

SIMILAR ENDEAVORS		DIFFERENT ENDEAVORS	
Organization C	Organization D	Organization C	Organization D
1. EEO Program and Policy 2. Affirmative Action Program 3. Training Programs for Management (Does not include Diversity Training) 4. Community Relations • Objective is to establish a relationship with the diverse communities 5. Succession Planning • The targeting of potential minorities and women for mentoring, career development, and grooming for top management positions	1. EEO Program and Policy 2. Affirmative Action Programs 3. Diversity Training for all Management 4. Community Relations 5. Succession Planning to place Minorities and Women in Key Positions	1. Internal Readiness • Involves division managers delegating to human resources corporate diversity goals and accomplishing these goals through changing the interior of the division to reflect the diversity goals 2. Parity of Women and Minorities in Management Ranks • Representation of women and minorities in the organization based on national demographics for each minority group and for women in management ranks 3. Management Accountability • Division president being held responsible and accountable for achieving diversity goals in division 4. Minority and Women Focus Groups • Identify barriers that hinder the mobility of minorities and women in the organization	1. Celebration of special Activities and Events related to Women and Minority 2. Pluralism Council • Does community outreach with diverse organizations. 3. Diversity and Awareness Training for all Employees. 4. Diversity Training for Suppliers and Vendors 5. Policy that states the Organization will not tolerate non pluralistic Behavior, Language, or Writing 6. Special Program to train and place Minority Women in Key Positions 7. Attending Diversity Training tied to all Employees Bonuses and Performance Appraisal 8. Pluralism Resource Group • Represents all diverse groups • Provides feedback to top management regarding diverse employee issues and needs

organization. Organization D is not only placing women and minorities in key positions, but it's making sure that the numbers of women and minorities in management reflect the demographics of the women and minorities in each racial group in the workforce.

Organization C has tied attending diversity training to the bonus and performance appraisal system for all employees, including management. However, in Organization D, management is held accountable, monetarily, for making sure their divisions meet corporate's diversity goals. In order to meet these diversity goals, each division seeks solutions to eliminating the barriers that hinder the success of minorities and women. Internal readiness is a practice that Organization D uses to change the interior of each division as well as headquarters to reflect an environment where minorities and women can succeed.

Organizations A and B do not have an official diversity program in place even though they have programs, policies, practices, plans, activities, tasks, training and education, that include the practice of race/ethnicity and gender diversity management. Moreover, Organization C's diversity program is targeted for management. The reason is due to its management's philosophy which is management is in charge of making change happen and not employees. Therefore, management in Organization C feels it's not necessary to involve employees in the change process.

Organization D's diversity management program is called pluralism. Through effective communication and education and training, all employees are aware of Organization D's pluralism effort. Non-pluralistic behavior, language, or writing are not tolerated in the organization . All employees, vendors, suppliers, and consultants are aware of this policy and are expected to adhere to it.

4.5.2. Similarities and Differences in Education and Training

Several of the organizations that participated in this study have sexual harassment, management (to improve employee/supervisor relationship), and diversity awareness education and training as a part of its efforts to practice diversity management. Organizations A, B, and D have some form of sexual harassment training for its employees. Organization D has diversity and awareness training for all employees and management. It is expected that everyone in the workforce take this training. Organization D also has courses that target improving the relationship between employees and management. Organizations A and C also have these types of courses available for management. Although Organization A does not have a diversity training course for management, it does have EEO training that targets improving the relationship between management, and minorities, and women employees. Organizations A and B don't offer any form of diversity awareness training to its employees.

In Organization D, it is required that all employees and management attend diversity awareness/pluralism training. Organization D also offers a pluralism course for suppliers and vendors. Outside consultants and presenters have the opportunity to take a pluralism course at Organization D. Management in Organization D feels outsiders will better understand its culture if exposed to the pluralism courses offered by the organization.

Management in Organization C does not feel diversity and awareness training will directly affect the behavior of others. Management feels that implementing practices that make management accountable (management accountability) for achieving the organization's diversity goals and by changing the interior (internal readiness) of the organization to reflect diversity are mechanisms for managing race/ethnicity and gender diverse employees.

4.5.3. Similarities and Differences in Initiatives, Activities, Tasks, and Infrastructure

All four organizations have initiatives, activities, tasks, and organizations that contribute to its practice of diversity management. All four organizations are involved in some form of community relations. Management in all four organizations realize the need to form a partnership for mutual gains/benefits with the different organizations that are a part of the diverse communities. A benefit for the organization as a result of the partnership is increasing the number of qualified minorities in the organization through making the organizations aware of their interest in hiring qualified minorities.

Organizations B and C sponsor programs and scholarships that bring minority students in to work in the organization during the summers. This initiative gets the students acquainted with the organization as well as gives them on the job experience. After graduation, those students who performed well on-the-job and had excellent grades are given the opportunity to work at these organizations.

Organizations A, B, and D celebrate annual events that are specific to minorities and women, such as Women's, Black History, and Hispanic Heritage Months. During these events, special activities and cultural celebrations are presented and all employees are encouraged to participate. These annual events are also a means of exposing others to different cultures and heritage's of diverse employees. This is another mechanism to encourage employees to value and accept others' differences.

Organizations A, B, and D have organizations that minorities and women can join as a means of support (e.g., Black Employees Group). Also, Organizations B and D have a committee that represents all the minorities in the organization. The committee is a part of the diversity management infrastructure. Each minority group has a representative on the committee. The committee meets with top management to provide feedback and make recommendations regarding issues that affect them in the organization. Organization A also

sponsors free lunch seminars on current issues facing the organization, such as health and child care, diversity, and sexual harassment.

Organization C gives its division the autonomy to decide whether it wants to participate in sexual harassment training, culture celebrations, and/or in establishing minority and women organizations. Organization C does not have a committee that represents minority groups and meets with top management to discuss issues facing them in the workforce.

4.6. Comparison of Each Organization's Elements that Relate to Both Race/Ethnicity and Gender Diversity Management to Those of Other Organizations in the Study

In this section, the data representing the similarities and differences in the resources each organization uses to manage the elements that relate to both race/ethnicity and gender diversity management and TQM are compared to those of the other organizations in the study. Organization A is compared to Organizations B, C, and D (See Tables 4.22., 4.23., and 4.24.). Organization B is compared to Organizations C and D (See Tables 4.25. and 4.26.) and to A (4.22.). Organization C is compared to Organizations D (See Table 4.27.) and to A and B (See Tables 4.23. and 4.25.). Organization D is compared to A, B, and C (See Tables 4.24., 4.26., and 4.27.). Data from these comparisons will be interpreted in Chapter 5.

4.6.1. Similarities and Differences in Working Together (Conflict Management)

All four organizations have initiated some form of management training related to group development, team building, and conflict management. However, in Organizations B, C, and D, team building, group development, and conflict resolution training is given to quality team members. This type of training is a necessity if teams are going to be

4.22. Comparison of Organization A's Means Used to Achieve Elements that Relate to Both Race/Ethnicity and Gender Diversity and TQM to Those of Organization B

SIMILAR RESOURCES		DIFFERENT RESOURCES	
Organization A	Organization B	Organization A	Organization B
<u>Working Together (Dealing with Conflict)</u> 1. Management training • Group development, team building, and conflict management • Employees compete for TQM Award 2. Conflict resolution chain • Employee/Employee • Employee/ Supervisor • Employee new work area <u>Employee Empowerment, Participation, and Involvement</u> 1. PATs/Quality Teams 2. Quality of Work Life Program	<u>Working Together (Dealing with Conflict)</u> 1. Management training • Managing work groups, team building • Employees compete for CIP/TQM Award 2. Conflict resolution chain • Employee/Employee • Employee/ Supervisor • Employee new work area <u>Employee Empowerment, Participation, and Involvement</u> 1. NWGs/Quality Teams 2. QWL Report Cards	<u>Working Together (Dealing with Conflict)</u> 1. Employees compete for Safety Award 2. Conflict resolution chain • Employee/Union Grievance • Employee/Civilian Employee Assistance Program <u>Employee Empowerment, Participation, and Involvement</u> 1. Productivity/Quality Council 2. Monthly Teas with CO	<u>Working Together (Dealing with Conflict)</u> 1. Team building training for NWGs 2. Conflict resolution chain • Employee/Human Resources • Employee/ Supervisor's Boss • Employee/Top Management <u>Employee Empowerment, Participation, and Involvement</u> 1. EIF/Suggestion Forms 2. Diversity Steering Committee
<u>Communication (Sharing of Information)</u> 1. Meetings • Top Leader /Senior Level Managers. • Top Leader/ Expanded Staff Supervisors/Employees 2. Other methods of communication • Memos	<u>Communication (Sharing of Information)</u> 1. Meetings • Top Leader/Senior Level Managers. • Top Leader/Staff Management Supervisors/Employee 2. Other methods of communication • Memos	<u>Communication (Sharing of Information)</u> 1. Other methods of communication • Supervisor Instructions • Shop Papers • Newspaper	<u>Communication (Sharing of Information)</u> 1. Meetings • All employees 2. Other methods of communication • Brown Bag Lunches • Weekly Status Reports • PPC Process • General Manager Letter • The Spectrum • Flyers • Special Bulletins • Newsletter

4.23. Comparison of Organization A's Means Used to Achieve Elements that Relate to Both Race/Ethnicity and Gender Diversity and TQM to Those of Organization C

SIMILAR RESOURCES		DIFFERENT RESOURCES	
Organization A	Organization C	Organization A	Organization C
<u>Working Together (Dealing with Conflict)</u> 1. Management training • Group development, team building, and conflict management • Employees Compete for TQM Award 2. Conflict resolution chain • Employee/Employee • Employee/ Supervisor • Employee new work area <u>Employee Empowerment, Participation, and Involvement</u> 1. PATs/Quality Teams	<u>Working Together (Dealing with Conflict)</u> 1. Management training • Group development, team building, and conflict management • Employees compete for TCS/TQM Award 2. Conflict resolution chain • Employee/Employee • Employee/ Supervisor • Employee new work area <u>Employee Empowerment, Participation, and Involvement</u> 1. TCS/Quality Teams	<u>Working Together (Dealing with Conflict)</u> 1. Employees compete for Safety Award 2. Conflict resolution chain • Employee/Union Grievance • Employee/Civilian Employee Assistance Program <u>Employee Empowerment, Participation, and Involvement</u> 1. Quality of Work Life Program 2. Productivity/Quality Council 3. Monthly Teas with CO <u>Communication (Sharing of Information)</u>	<u>Working Together (Dealing with Conflict)</u> 1. TCS/quality team trained in team building and interpersonal conflict 2. Conflict resolution • Employee/ Supervisor's Boss • Employee/Top Management <u>Employee Empowerment, Participation, and Involvement</u> 1. Participative Management Program <u>Communication (Sharing of Information)</u> 1. Other methods of communication • Information Board
<u>Communication (Sharing of Information)</u> 1. Meetings • Top Leader /Senior Level Managers. • Top Leader/ Expanded Staff • Supervisors/Employees	<u>Communication (Sharing of Information)</u> 1. Meetings • Top Leader /Senior Level Managers. • Top Leader/ Expanded Staff • Supervisors/Employees	<u>Communication (Sharing of Information)</u> 1. Other methods of communication • Memos • Supervisor Instructions • Shop Paper • Newspaper	

4.24. Comparison of Organization A's Means Used to Achieve Elements that Relate to Both Race/Ethnicity and Gender Diversity and TQM to Those of Organization D

SIMILAR RESOURCES		DIFFERENT RESOURCES	
Organization A	Organization D	Organization A	Organization D
<u>Working Together (Dealing with Conflict)</u> 1. Management training • Group development, team building, and conflict management • Employees compete for TQM Award 2. Conflict resolution chain • Employee/Employee • Employee/ Supervisor • Employee/Union Grievance • Employee new work area	<u>Working Together (Dealing with Conflict)</u> 1. Management training • Group development, team building, and conflict management • Employees compete for TQS Award 2. Conflict resolution chain • Employee/Employee • Employee/ Supervisor • Employee/Union Grievance • Employee new work area	<u>Working Together (Dealing with Conflict)</u> 1. Employees compete for Safety Award • Employee/Civilian Employee Assistance Program 2. Conflict resolution chain • Employee/ Supervisor's Boss • Employee/Top Management	<u>Working Together (Dealing with Conflict)</u> 1. TQS/Quality teams trained in team building, group development, and conflict resolution 2. Conflict resolution chain • Employee/ Supervisor's Boss • Employee/Top Management
<u>Employee Empowerment, Participation, and Involvement</u> 1. PATs/Quality Teams	<u>Employee Empowerment, Participation, and Involvement</u> 1. TQS/Quality Teams	<u>Employee Empowerment, Participation, and Involvement</u> 1. Quality of Work Life Program 2. Productivity/Quality Council 3. Monthly Teas with CO	<u>Employee Empowerment, Participation, and Involvement</u> 1. Pluralism Resource Group
<u>Communication (Sharing of Information)</u> 1. Meetings • Top Leader /Senior Level Managers. • Top Leader/ Expanded Staff Supervisors/Employees 2. Other methods of communication • Newspaper	<u>Communication (Sharing of Information)</u> 1. Meetings • Top Leader/ Senior Level Managers. • Top Leader/ Expanded Staff Supervisors/Employees 2. Other methods of communication • Newspaper	<u>Communication (Sharing of Information)</u> 1. Other methods of communication • Memos • Supervisor Instructions • Shop Paper	<u>Communication (Sharing of Information)</u> 1. Meetings • All employees (Town Hall) 2. Other methods of communication • Magazine • Electronic and Voice Male • Flyers • Posters • Information Boards

4.25. Organization of Organization B's Means Used to Achieve Elements that Relate to Both Race/Ethnicity and Gender Diversity and TQM to Those of Organization C

SIMILAR RESOURCES		DIFFERENT RESOURCES	
Organization B	Organization C	Organization B	Organization C
<u>Working Together (Dealing with Conflict)</u> 1. Management training • Managing work groups, team building • Team building training for NWGs • Employees compete for CIP/TQM Award 2. Conflict resolution chain • Employee/Employee • Employee/ Supervisor • Employee/ Supervisor's Boss • Employee/Top Management • Employee new work area	<u>Working Together (Dealing with Conflict)</u> 1. Management training • Group development, team building, and conflict management • TCS team trained in team building, and interpersonal conflict • Employees compete for TCS/TQM Award 2. Conflict resolution chain • Employee/Employee • Employee/ Supervisor • Employee/ Supervisor's Boss • Employee/Top Management • Employee new work area	<u>Working Together (Dealing with Conflict)</u> 1. Conflict resolution chain • Employee/Human Resources	<u>Working Together (Dealing with Conflict)</u>
<u>Employee Empowerment, Participation, and Involvement</u> 1. NWGs/Quality Teams	<u>Employee Empowerment, Participation, and Involvement</u> 1. TCS/Quality Teams	<u>Employee Empowerment, Participation, and Involvement</u> 1. EIF/Suggestion Forms 2. Diversity Steering Committee	<u>Employee Empowerment, Participation, and Involvement</u> 1. Participative Management Program
<u>Communication (Sharing of Information)</u> 1. Meetings • Top Leader/Senior Level Managers. • Top Leader/Staff Management • Supervisors/Employee	<u>Communication (Sharing of Information)</u> 1. Meetings • Top Leader /Senior Level Managers. • Top Leader/ Expanded Staff • Supervisors/Employees	<u>Communication (Sharing of Information)</u> 1. Meetings • All employees 2. Other methods of communication • Newsletter • Memos • Brown Bag Lunches • Weekly Status Reports • PPC Process • General Manager Letter • The Spectrum • Flyers • Special Bulletins	<u>Communication (Sharing of Information)</u> 1. Other methods of communication • Information Board

4.26. Comparison of Organization B's Means Used to Achieve Elements that Relate to Both Race/Ethnicity and Gender Diversity and TQM to Those of Organization D

SIMILAR RESOURCES		DIFFERENT RESOURCES	
Organization B	Organization D	Organization B	Organization D
<u>Working Together (Dealing with Conflict)</u> 1. Management training • Managing work groups, team building • Team building training for NWGs • Employees compete for CIP/TQM Award 2. Conflict resolution chain • Employee/Employee • Employee/ Supervisor • Employee new work area • Employee/Top Management • Employee new work area	<u>Working Together (Dealing with Conflict)</u> 1. Management training • Group development, team building, and conflict management • TQS/teams trained in team building, group development and conflict resolution • Employees compete for TQS Award 2. Conflict resolution chain • Employee/Employee • Employee/ Supervisor • Employee/ Supervisor's Boss • Employee/Top Management • Employee new work area	1. Conflict resolution chain • Employee/Human Resources	1. Conflict resolution chain • Employee/Union Grievance
<u>Employee Empowerment, Participation, and Involvement</u> 1. NWGs/Quality Teams 2. Diversity Steering Committee	<u>Employee Empowerment, Participation, and Involvement</u> 1. TQS/Quality Teams 2. Pluralism Resource Group	<u>Employee Empowerment, Participation, and Involvement</u> 1. EIF/Suggestion Forms	<u>Employee Empowerment, Participation, and Involvement</u>
<u>Communication (Sharing of Information)</u> 1. Meetings • Top Leader/Senior Level Managers. • Top Leader/Staff Management • Supervisors/Employee • All employees 2. Other methods of communication • Flyers	<u>Communication (Sharing of Information)</u> 1. Meetings • Top Leader/ Senior Level Managers. • Top Leader/ Expanded Staff • Supervisors/ Employees • All employees meeting (Town Hall) 2. Other methods of communication • Flyers	<u>Communication (Sharing of Information)</u> 1. Other methods of communication • Magazine • Electronic and Voice Mail • Posters • Information Boards • Newspaper	<u>Communication (Sharing of Information)</u> 1. Other methods of communication • Magazine • Electronic and Voice Mail • Posters • Information Boards • Newspaper

4.27. Comparison of Organization C's Means Used to Achieve Elements that Relate to Both Race/Ethnicity and Gender Diversity and TQM to Those of Organization D

SIMILAR RESOURCES		DIFFERENT RESOURCES	
Organization C	Organization D	Organization C	Organization D
<u>Working Together (Dealing with Conflict)</u> 1. Management training • Group development, team building, and conflict management • TCS team trained in team building, group development and interpersonal conflict • Employees compete for TCS/TQM Award 2. Conflict resolution chain • Employee/Employee • Employee/ Supervisor • Employee/ Supervisor's Boss • Employee/Top Management • Employee new work area	<u>Working Together (Dealing with Conflict)</u> 1. Management training • Group development, team building, and conflict management • TQS/teams trained in team building, group development and conflict resolution • Employees compete for TQS Award 2. Conflict resolution chain • Employee/Employee • Employee/ Supervisor • Employee new work area • Employee/ Supervisor's Boss • Employee/Top Management	<u>Working Together (Dealing with Conflict)</u> 1. Conflict resolution chain • Employee/ Union Grievance	<u>Working Together (Dealing with Conflict)</u> 1. Conflict resolution chain • Employee/ Union Grievance
<u>Employee Empowerment, Participation, and Involvement</u> 1. TCS/Quality Teams	<u>Employee Empowerment, Participation, and Involvement</u> 1. TQS/Quality Teams	<u>Employee Empowerment, Participation, and Involvement</u> 1. Participative Management Program	<u>Employee Empowerment, Participation, and Involvement</u> 1. Pluralism Resource Group
<u>Communication (Sharing of Information)</u> 1. Meetings • Top Leader /Senior Level Managers. • Top Leader/ Expanded Staff • Supervisors/Employees 2. Other methods of communication • Information Board	<u>Communication (Sharing of Information)</u> 1. Meetings • Top Leader /Senior Level Managers. • Top Leader/ Expanded Staff • Supervisors/Employees 2. Other methods of communication • Information Board	<u>Communication (Sharing of Information)</u> 1. Meetings • All employees (Town Hall) 2. Other methods of communication • Magazine • Electronic and Voice Mail • Flyers • Posters	<u>Communication (Sharing of Information)</u> 1. Meetings • All employees (Town Hall) 2. Other methods of communication • Magazine • Electronic and Voice Mail • Flyers • Posters

effective, efficient, and productive since its members have to be able to work with each other regardless of race and sex.

All four organizations use these similar approaches to solving conflicts between employees and employees and management:

- employees try to resolve the conflict among themselves;
- employees use the supervisor to solve conflicts;
- employees confer with the supervisor's boss to solve conflicts; and
- employees request to be moved to another department or work area.

However, all four of these organizations use additional approaches to conflict resolution whenever these previously mentioned approaches do not work. In Organization B, if employees are not satisfied with management's solution to conflicts, they can ask human resources to assist in conflict resolution. Employees in Organizations A and D can file a grievance with the union if they are not satisfied with the way a conflict is handled by management. Organizations B, C, and D have open door policies; they can seek conflict resolution from top management.

4.6.2. Similarities and Differences in Employee Empowerment, Participation, and Involvement

All four organizations encourage employees to participate on quality teams as a means of employee empowerment, participation, and involvement. Also, all four organizations empower employees to solve problems, make decisions, plan, and improve the day-to-day operations of their work environment and the processes they work with. Organization C has a participative management program that rewards employees' efforts to improve the organization and their division. Employees are rewarded by sharing in the profits received by the division. In Organizations A and B, employees are empowered to

improve the quality of their work life. In Organization A, this is done through their participation in the quality of work life program. Whereas, in Organization B, employees fill out an annual report card and the areas with the overall lowest grade are targeted for improvement by top management.

Employees in Organization B can also be selected to participate on the Productivity and Quality Council. This council is empowered to solve problems, make decisions, plan, and improve specific areas within the organization.

In Organization A, employees are empowered to suggest areas for improvements and/or improvements to areas through completing an Employee Input Form. These forms are evaluated, logged, and employees receive quick turn around regarding the status of their suggestion. Also in Organization A, employees can attend a monthly tea with the Commanding Officer of the organization if selected. Employees who are chosen are expected to openly participate and make suggestions to the CO about problems that need to be solved or improvements that need to be made in the organization.

Organizations B and D both have empowered their diversity committee that represents all minorities within the organization to provide input and feedback on policies, guidelines, and issues affecting them in the organization. This committee has a direct contact with top management in the organization.

4.6.3. Similarities and Differences in Communication (Sharing Information)

Organizations B and D use the most mechanisms for communicating information about what it's doing and how it's performing. However, in all four organizations, information is communicated through meetings. In Organizations A, B, and C, information is deployed downward in the organization beginning with the CEO meeting with his senior level staff, the senior level staff meeting with middle management and supervisors, and supervisors meeting with employees.

In Organizations B and D, the leaders of these organizations meet with all employees on a regular basis. In Organization D, there is a monthly Town Hall meeting that is televised to all employees. Employees are free to call and ask the president questions.

Other methods used by Organizations B and D to communicate information to employees are newsletters, newspapers, memos, flyers, information boards, and electronic mail. Employees in these organizations have information available to them on a timely basis.

4.5. Summary

In conclusion, this chapter presented all of the data and results from the four case studies. This chapter exhibited the results for within case and cross case analyses for each case study. Also in this chapter, there is a section for each case and each section has sub-sections that are the same across cases. The data presented in these sections are comparable across cases. The sub-sections for the cases are: 1) background information about each organization; 2) TQM efforts, 3) endeavors that constitute the management of race/ethnicity and gender diversity, 4) elements that relate to both TQM and race/ethnicity and gender diversity; and 5) summary.

Moreover, each case has sub-sections that contain data that are organizational specific. Organizational specific data contains information about an organization's TQM and/or diversity management efforts that are generic only to that organization. In Chapter 5, the data from this chapter will be converted into information. The information provided in Chapter 5 will be presented as interpretations and conclusions of the results of within case and cross case data analyses performed in this chapter.

CHAPTER 5 CONCLUSIONS AND INTERPRETATIONS

In this chapter, the data from the four cases introduced in Chapter 4 are portrayed as information. In Chapter 4, the results from within case analysis and cross case analysis were presented. In this chapter, information resulting from the data in Chapter 4 will be presented as follows:

- How organizations that successfully practice TQM manage race/ethnicity and gender diversity;
- How an organization that is considered one of the best at diversity management manages race/ethnicity and gender diversity;
- The similarities and differences in the practice of diversity management used by organizations that successfully practice TQM and an organization that is considered one of the best at its practice of diversity management;
- The types of endeavors that constitute race/ethnicity and gender diversity management; and
- The means organizations use to achieve the elements that relate to both TQM and race/ethnicity and gender diversity management.

The results from Chapter 4 will be presented as interpretations and conclusions through the interpretation of within case and cross case analysis of the data and the drawing of conclusions. In Chapter 6, I will use information to outline a program to manage diversity in the context of large-scale organizational change efforts aimed at improving performance.

5.1. Endeavors and Elements Used to Manage Race/Ethnicity and Gender Diversity by Organizations that Successfully Practice TQM.

5.1.1. General Findings on Endeavors that Constitute Race/Ethnicity and Gender Diversity Management by Organizations that Successfully Practice TQM

I categorized the endeavors that constitute the management of race/ethnicity and gender diversity into three categories. These endeavors are derived from what I heard, read, and saw pertaining to each organization's practice of race/ethnicity and gender diversity while in the organization collecting data. The three categories I used are programs, plans, practices, and policies; education and training; and initiatives, activities, tasks, and infrastructure. These categories were based on the relationship of the endeavors to each other. For example, programs are plans of procedure, plans are methods for accomplishing something, practices are applications of something, and policies are definite methods of action selected to guide and determine future actions. All of these endeavors are means to achieving an end. The type of endeavors that constitute programs, plans, practices, and policies used by the organizations that successfully practice TQM are:

- Equal Employment Opportunity and Affirmative Action programs and policies
- Women's and minority programs and Special Emphasis programs
- Internal readiness practice
- Management accountability practice
- Parity of women and minorities in management ranks plan/practice
- Succession planning practice

The types of training and education that constitute the management of race/ethnicity and gender diversity are:

- Sexual harassment training
- Management training to improve employee/supervisor relations

The initiatives, activities, tasks, and infrastructure that constitute the management of race/ethnicity and gender diversity are:

- Community relation initiatives
- Celebration of special activities and events related to women and minorities
- Advisory committee to women and minority programs
- Pluralism Council and Black and Women Organizations (represent minorities and women)
- Diversity Steering Committee (represent minorities)
- Minority and women focus groups

5.1.2. General Findings on the Means Used to Achieve the Elements that Relate to Both TQM and Race/Ethnicity and Gender Diversity Management

Based on the body of knowledge about race/ethnicity and gender diversity management, I concluded there are several elements that relate to both TQM and the management of race/ethnicity and gender diversity. These elements are:

- working together (dealing with conflict);
- empowerment, participation, and involvement; and
- communication (sharing of information).

These organizations that successfully practice TQM have to use resources to assist in the management of these elements that relate to both phenomena. The means used by these organizations to achieve these elements that relate to both TQM and race/ethnicity and gender diversity management are displayed in Table 5.1. The means used by organizations

to achieve these elements were determined by what I heard, read, and saw while in the organizations collecting data about the elements.

Table 5.1. Means Used to Achieve the Elements that Relate to both Race/Ethnicity and Gender Diversity and TQM by Organizations that Successfully Practice TQM

Working Together (Dealing with Conflict)	Empowerment, Participation, and Involvement	Communication (Sharing of Information)
1. Management Training • Group development, team building, and conflict resolution 2. Quality Team Training • Team building, group development, conflict resolution, and interpersonal conflict 3. Teams Compete for TQM Award 4. Work groups compete for Safety Award 5. Conflict Resolution Chain • Employee/Employee • Employee/Supervisor • Employee/Supervisor's Boss • Employee/Top Management • Employee/Union Grievance • Employee/Human Resources • Employee/Civilian Employee Assistance Program • Employee new work area	1. Quality Teams 2. Quality of Work Life Program 3. Quality Council 4. Monthly Teas with Top Leader 5. Participative Management Program 6. QWL Report Card 7. Suggestion Form 8. Diversity Committee	1. Meetings • Top Leader/Senior Level Managers • Top Leader/Staff Management • Supervisors/Employees • All Employees 2. Other Methods of Communication • Memo • Brown Bag Lunches • Weekly Status Reports • General Manager Letter • Flyers • Special Bulletins • Newsletter • Newspaper • Supervisor Instructions • Shop Paper • Information Board

5.2. Endeavors and Elements Used to Manage Race/Ethnicity and Gender Diversity by an Organization that is Considered One of the best at Diversity Management

5.2.1. General Findings on Endeavors that Constitute Race/Ethnicity and Gender Diversity Management

As I mentioned in Section 5.2. the three categories I used to categorize the endeavors that constitute the management of race/ethnicity and gender diversity are programs, plans, practices, and policies; education and training; and initiatives, tasks, and infrastructure. The types of endeavors that constitute programs, plans, practices, and policies used by an organization that is considered one of the best at diversity management are:

- Equal Employment Opportunity and Affirmative Action programs and policies
- Succession planning practice
- Diversity/pluralism policy
- Program to place women in key positions
- Employee accountability for diversity training

The types of training and education that constitute the management of race/ethnicity and gender diversity are:

- Sexual harassment training
- Management training to improve employee/supervisor relations

- Diversity and awareness training for management and employees
- Diversity and awareness training for suppliers, vendors, outside consultants, and others who come in contact with members of the organization on a regular basis

The initiatives, activities, tasks, and infrastructure that constitute the management of race/ethnicity and gender diversity are:

- Community relation initiatives
- Celebration of special activities and events related to women and minorities
- Pluralism Council and Black and Women Organizations (represent minorities and women)
- Pluralism Resource Groups (represent minorities)
- Recruit potential employees from pluralistic student bodies

5.2.2 General Findings on Means Used to Achieve the Elements that Relate to Both TQM and Race/Ethnicity and Gender Diversity Management

The elements that relate to both TQM and Race/Ethnicity and Gender diversity management are: working together (dealing with conflict); empowerment, participation, and involvement; and communication. An organization that is considered one of the best at diversity management uses these means to achieve the elements that relate to both phenomena, as displayed in Table 5.2.

**Table 5.2. Means Used to Achieve the Elements that Relate to both Race/
Ethnicity and Gender Diversity and TQM Used by an
Organization that is Considered One of the best at
Diversity Management**

Working Together (Dealing with Conflict)	Empowerment, Participation, and Involvement	Communication (Sharing of Information)
1. Management Training • Group development, team building, and conflict resolution 2. Quality Team Training • Team building, group development, conflict resolution and interpersonal conflict 3. Teams Compete for TQM Award 4. Conflict Resolution Chain • Employee/Employee • Employee/Supervisor • Employee/Supervisor's Boss • Employee/Top Management • Employee/Union Grievance • Employee new work area	1. Quality Teams 2. Pluralism Resource Group	1. Meetings • Top Leader/Senior Level Managers • All Employees 2. Other Methods of Communication • Flyers • Information Board • Newspaper • Magazine • Electronic and Voice Mail • Posters

5.3. Similarities and Differences in Endeavors and Elements Used to Manage Race/Ethnicity and Gender Diversity by Organizations that Successfully Practice TQM and an Organization that is Considered One of the best at Diversity Management

5.3.1. Similarities and Differences in Endeavors that Constitute Race/Ethnicity and Gender Diversity Management

In this paragraph, I will present information regarding the similarities in the types of endeavors that constitute race/ethnicity and gender diversity management that organizations that successfully practice TQM have in common with an organization that is considered one of the best at diversity management. Endeavors that constitute the programs, practices, and policies that these organizations have in common are:

- Equal Employment Opportunity and Affirmative Action programs and policies
- Succession planning practice

The similarities in the types of training and education that constitute the management of race/ethnicity and gender diversity are:

- Sexual Harassment training
- Management training to improve employee/supervisor relations

The similarities in initiatives, activities, tasks, and the infrastructure that constitute the management of race/ethnicity and gender diversity are:

- Community relation initiatives
- Celebration of special activities and events related to women and minorities
- Pluralism Council and Black and Women Organizations (represent minorities and women)

- Pluralism Resource Groups/Diversity Steering Committee (represent all minorities)

In this paragraph, I will present information regarding the differences in the types of endeavors that constitute race/ethnicity and gender diversity management in organizations that successfully practice TQM and in an organization that is considered one of the best at diversity management. Organizations that successfully practice TQM have programs, practices, and policies that are different from an organization that is considered on of the best. These programs, practices and policies are :

- Women's and minority programs and Special Emphasis programs
- Internal readiness practice
- Management accountability practice
- Parity of women and minorities in management ranks' plan/practice

An organization that is considered one of the best at diversity management have the following programs, policies and practices that organizations that are considered one of the best at diversity management do not have:

- Diversity/pluralism policy
- Program to place women in key positions
- Employee accountability practice

An organization that is considered on of the best at diversity management have the following types of training and education for employees that organizations that successfully practice TQM do not have:

- Diversity and awareness training for management and employees
- Diversity and awareness training for suppliers, vendors, outside consultants, and others who come in contact with members of the organization on a regular basis

The differences in the initiatives, activities, tasks, and the infrastructure that constitute the management of race/ethnicity and gender diversity for organizations that successfully practice TQM are:

- Advisory committee to women and minority programs
- Minority and women focus groups

The differences in the initiatives, activities, tasks, and the infrastructure that constitute the management of race/ethnicity and gender diversity for an organization that is considered one of the best at diversity management are:

- Recruit potential employees from pluralistic student bodies

Table 5.3. displays and explains the differences in the types of endeavors that constitute race/ethnicity and gender diversity management in organizations that successfully practice TQM and in an organization that is considered one of the best at diversity management have in common.

Table 5.3. Differences in Endeavors that Constitute the Management of Race/Ethnicity and Gender Diversity in Organizations that Successfully Practice TQM and in an Organization that is Considered One of the best at Diversity Management

Programs, Plans, Practices, and Policies	Education and Training	Initiatives, Activities, Tasks, and Infrastructure
<u>Organizations that Successfully Practice TQM</u> 1. Women's and Minority Programs and Special Emphasis Programs 2. Internal Readiness 3. Management Accountability 4. Parity of Women and Minorities in Management Ranks <u>An Organization that is Considered One of the Best at Diversity Management</u> 5. Diversity Policy • States organization will not tolerate non-pluralistic behavior, actions, language, or writing 6. Program to place Women in Key Positions 7. Employee Accountability	<u>An Organization that is Considered One of the Best at Diversity Management</u> 1. Diversity and Awareness Training for Management and Employees 2. Diversity and Awareness Training for Suppliers, Vendors, Outside Consultants, and others who come in contact with members of the organization on a regular basis	<u>Organizations that Successfully Practice TQM</u> 1. Advisory Committee to Women and Minority Programs 2. Minority and Women Focus Groups • Identify barriers that hinder the mobility of minorities and women in the organization <u>An Organization that is Considered One of the Best at Diversity Management</u> 3. Recruit Potential Interns and Employees from Universities that have a Pluralistic Student Body

5.3.2. Similarities and Differences in Elements that Relate to Both TQM and Race/Ethnicity and Gender Diversity Management

The elements that relate to both TQM and Race/Ethnicity and Gender diversity management are: working together (dealing with conflict); empowerment, participation, and involvement; and communication. Table 5.4. displays the means for achieving the elements that organizations that successfully practice TQM and an organization that is considered one of the best at diversity management have in common.

Table 5.4. Means Used to Achieve the Elements that Relate to both Race/Ethnicity and Gender Diversity and TQM that Organizations that Successfully Practice TQM have in Common with an Organization that is Considered One of the best at Diversity Management

Working Together (Dealing with Conflict)	Empowerment, Participation, and Involvement	Communication (Sharing of Information)
1. Management Training • Group development, team building, and conflict resolution 2. Quality Team Training • Team building, group development, conflict resolution and interpersonal conflict 3. Teams Compete for TQM Award 4. Conflict Resolution Chain • Employee/Employee • Employee/Supervisor • Employee/Supervisor's Boss • Employee/Top Management • Employee/Union Grievance • Employee new work area	1. Quality Teams 2. Pluralism Resource Group/ Diversity Steering Committee	1. Meetings • Top Leader/Senior Level Managers • Supervisor/Employees • All Employees 2. Other Methods of Communication • Flyers • Information Board • Newspaper

Table 5.5. displays the differences in the means used to achieve the elements that relate to both TQM and race/ethnicity and gender diversity management in organizations that successfully practice TQM and in an organization that is considered one of the best at diversity management.

Table 5.5. Differences in Means Used to Achieve Elements that Relate to both Race/Ethnicity and Gender Diversity and TQM in Organizations that Successfully Practice TQM and in an Organization that is Considered

Working Together (Dealing with Conflict)	Empowerment, Participation, and Involvement,	Communication (Sharing of Information)
<u>Organizations that Success-fully Practice TQM</u>	<u>Organizations that Success-fully Practice TQM</u>	<u>Organizations that Success-fully Practice TQM</u>
1. Work groups compete for Safety Award 2. Conflict Resolution Chain • Employee/Human Resources • Employee/Civilian Employee Assistance Program	1. Quality of Work Life Program 2. Quality Council 3. Monthly Teas with Top Leader 4. Participative Management Program 5. QWL Report Card 6. Suggestion Form	1. Meetings • Top Leader/Staff Management 2. Other Methods of Communication • Memo • Brown Bag Lunches • Weekly Status Reports • General Manager Letter • Special Bulletins • Newsletter • Supervisor Instructions • Shop Paper <u>An Organization Considered One of the Best at Diversity Management</u> • Magazine • Electronic and Voice Mail • Posters

5.4. Endeavors that Constitute Race/Ethnicity and Gender

Diversity Management

In this section, I will present information regarding the types of endeavors that constitute race/ethnicity and gender diversity management used by the organizations that participated in this study. The types of endeavors that constitute programs, plans, practices, and policies are:

- Equal Employment Opportunity and Affirmative Action programs and policies
- Women's and minority programs and Special Emphasis programs
- Internal readiness practice
- Management accountability practice
- Parity of women and minorities in management ranks plan/practice
- Succession planning practice
- Diversity/pluralism policy
- Program to place women in key positions
- Employee accountability practice

The types of training and education that constitute the management of race/ethnicity and gender diversity are::

- Sexual harassment training
- Management training to improve employee/supervisor relations
- Diversity and awareness training for management and employees
- Diversity and awareness training for suppliers, vendors, outside consultants, and others who come in contact with members of the organization on a regular basis

The initiatives, activities, tasks, and infrastructure that constitute the management of race/ethnicity and gender diversity are:

- Community relation initiatives
- Celebration of special activities and events related to women and minorities
- Advisory committee to women and minority programs
- Pluralism Council and Black and Women Organizations (represent minorities and women)
- Pluralism Resource Groups (represent minorities)
- Diversity Steering Committee (represent minorities)
- Minority and women focus groups
- Recruit potential employees from pluralistic student bodies

These endeavors were generated from within case analysis of each organization's endeavors that constitute the management of race/ethnicity and gender diversity.

5.5. Means Used to Manage Elements that Relate to Both TQM and Race/Ethnicity and Gender Diversity

The resources used by the organizations in this study to manage the elements that relate to both TQM and race/ethnicity and gender diversity management are displayed in Table 5.6. These resources are based on data gathered pertaining to how the four organization used in this study manage these elements: working together (dealing with conflict); empowerment, participation, and involvement; and communication (sharing of information).

**Table 5.6. Means Used to Achieve the Elements that Relate to
both Race/Ethnicity and Gender Diversity and TQM
Used by Organizations in this Research**

Working Together (Dealing with Conflict)	Empowerment, Participation, and Involvement	Communication (Sharing of Information)
1. Management Training • Group development, team building, and conflict resolution 2. Quality Team Training • Team building, group development, conflict resolution and interpersonal conflict 3. Teams Compete for TQM Award 4. Work groups compete for Safety Award 5. Conflict Resolution Chain • Employee/Employee • Employee/Supervisor • Employee/Supervisor's Boss • Employee/Top Management • Employee/Union Grievance • Employee/Human Resources • Employee/Civilian Employee Assistance Program • Employee new work area	1. Quality Teams 2. Quality of Work Life Program 3. Quality Council 4. Monthly Teas with Top Leader 5. Participative Management Program 6. QWL Report Card 7. Suggestion Form 8. Pluralism Resource Group/Diversity Committee	1. Meetings • Top Leader/Senior Level Managers • Top Leader/Staff Management • Supervisors/Employees • All Employees 2. Other Methods of Communication • Memo • Brown Bag Lunches • Weekly Status Reports • General Manager Letter • Flyers • Special Bulletins • Newsletter • Information Board • Newspaper • Supervisor Instructions • Shop Paper • Magazine • Electronic and Voice Mail • Posters

5.6. Conclusions

In this section, I have made conclusions about this research based on the information presented in this chapter and the data pertaining to each organization's practice of TQM in Chapter 4. There are both obvious and intuitive and non obvious and counter intuitive conclusions regarding this research effort. The following paragraphs will address the conclusions regarding this research effort.

A conclusion I've reached is that all four organizations are at different stages of evolution in the level of maturity of their diversity management efforts. The body of knowledge states there are three stages of evolution in respect to approaches used in dealing with diversity management. The first stage is AA and EEO compliance. Organizations at this stage focus on meeting the government's requirement for the number of minorities and women working in the organization. The second stage is understanding and valuing diversity. In this second stage of evolution, employees within the organization have learned to appreciate others' differences and without criticism and judgment (Thomas, 1991). Organizations at this stage have established the following:

- caucuses that support the individual and foster the understanding of the given diverse group's culture;
- designation of culture days where specific cultures are highlighted; and
- presentation of educational and training programs to enhance participants awareness of culture differences (Thomas, 1991).

The third stage of evolution involves management making whatever changes in their systems, structures, and management practices to eliminate any subtle barriers that might inhibit people from reaching their full potential (Gerber, 1990).

Therefore, I define the level of maturity of an organization's diversity management effort as:

- the number of years the organization has been participating in its practice;
- how well the organization has performed based on experts who consider it one of the best at diversity management;
- the extent that everyone has been trained about diversity awareness;
- the organization's policy, mission, vision, and guiding principles that support diversity management;
- the organization walking what it talks by not allowing non pluralistic behavior, actions, language, or writing in the organization; and
- The organization making changes to its systems, structures, and management practices to eliminate any subtle barriers that might inhibit people from reaching their full potential.

Based on the stages of evolution in the maturity of an organization's diversity management effort, Organizations A's and B's diversity management efforts are not very mature in comparison to Organization C's and D's. Organizations A and B are between AA and EEO compliance and valuing and understanding diversity. These organizations have recently begun women and minority group forums to address issues and needs regarding diverse employees and the celebration of special activities and events related to the diverse groups cultures. However, these organizations have not initiated diversity awareness education and training programs.

Organization C is in an intermediate stage with regards to the level of maturity of its diversity management effort. Organization C's diversity management effort is between AA and EEO and making appropriate changes to its systems, structures, and management practices to eliminate subtle barriers that might inhibit people from reaching their full potential. Organization C is attempting to go from stage 1 of evolution to stage 3 without

going through stage 2, valuing and understanding diversity. Organization C has included all management in its diversity efforts, but not all employees.

Organization D is at the third stage of evolution in the maturity of its diversity management effort. Organization D's diversity management effort is the most mature in comparison to the other three organizations that participated in this study. Although Organization D does not partake in all of the endeavors used by the other organizations in this study, its diversity management effort is still more comprehensive.

Organization D has included its entire workforce as well as its vendors, suppliers, and others who do business with the organization in its diversity management effort. Organization D has made changes to its systems, structures, and management practices in order to eliminate subtle barriers that might inhibit employees from reaching their full potential. The organization's mission, vision, guiding principles, and policies reflect its belief and attitude regarding diversity management.

Organizations A, B, and C have very mature TQM efforts and Organization D is at stage 2 in the level of maturity of its TQM effort. The three stages of the evolution of maturity of an organization's TQM efforts are as follows:

Stage 1-Awareness

Stage 2-Non integrated actions and initiatives regarding the practice of TQM

Stage 3-Grand Strategy Systems (GSS), a plan used to map out the strategies to be implemented to successfully manage TQM/continuous improvement efforts

The maturity of these organization's TQM effort is based on:

- the awards won regarding the effectiveness of their efforts;
- the number of years the organization has been practicing TQM;

- the initiation of quality training to all employees;
- the inclusion of employees in the TQM process; and
- the empowerment and involvement of employees in problem solving and decision making processes.

However, an intuitive conclusion I have that is based on the data and body of knowledge review from this research is that in order for Organizations A's, B's, and C's TQM and continuous improvement efforts to continuously evolve and improve, these organizations will have to put a greater emphasis on managing diversity with regards to:

- team building, team work, and group dynamics that focuses on valuing and respecting others' differences;
- diversity education and training for all employees since TQM involves employees of different races and sexes working together in groups; and
- systems, structures, and management practice changes that eliminate barriers that impede full utilization of everyone's full potential. TQM encourages utilizing everyone's full potential as a means of contributing to problem solving, decision making, and process improvements.

I've concluded that all organizations in this study empower employees through quality teams that improve the processes they work with on a daily basis. Employees are empowered to solve problems, make decisions, and take the appropriate actions that are necessary to facilitate process improvement. All organizations in this study train their employees on the appropriate tools to aid them in their process improvement efforts.

Based on the conclusions of this research, I've classified organizations into nine types with regard to the stage of the level of maturity of an organization's TQM and

diversity management practices. The stages of the level of maturity of an organization's TQM and diversity management practices are displayed in Table 5.7.

Table 5.7. The Stages of the Level of Maturity of An Organization's TQM and Diversity Management Practice

Stages	TQM	Diversity Management
1	Awareness	AA and EEO compliance
2	Non integrated actions and initiatives	Valuing and understanding diversity
3	Map out strategies to be implemented to successfully manage TQM/CI through the use of GSS	Making whatever change in the systems, structure, and management practices to eliminate barriers that might inhibit employees from reaching their full potential

The nine types of organizations are:

Type 1 (1, 1)--Organization does not have a mature TQM or diversity management effort

Type 2 (1, 2)--Organization does not have a mature TQM effort but is at the intermediate stage in its diversity management effort

Type 3 (1, 3)--Organization does not have a very mature TQM effort but has a mature diversity management effort

Type 4 (2, 1)--Organization is at the intermediate stage in its TQM effort but does not have a mature diversity management effort

Type 5 (2, 2)--Organization is at the intermediate stage in its TQM and diversity management efforts

Type 6 (2, 3)--Organization is at the intermediate stage in its TQM effort and has a mature diversity management effort

Type 7 (3, 1)--Organization has a mature TQM effort but does not have a mature diversity management effort

Type 8 (3, 2)--Organization has a mature TQM effort and is at the intermediate stage in its diversity management effort

Type 9 (3, 3)--Organization has a mature TQM effort and diversity management effort

Table 5.8. displays the type of organizations the organizations in this study are:

Table 5.8. Type of Organization

	Organization A	Organization B	Organization C	Organization D
TQM	3	3	3	2
Diversity Management	1	1	2	3

Organizations A and B are classified as type 7, mature TQM effort and not so mature diversity management effort. Organization C is classified as Type 8, mature TQM effort and intermediate stage diversity management effort. Organization D is classified as Type 6, intermediate stage TQM effort and mature diversity management effort.

5.7. Interpretations

In this section, I interpreted the information resulting from the data presented in Chapter 4. Interpretation necessitates proceeding beyond the descriptive data. For this research interpretation entails making the hidden obvious. The following paragraphs will address interpretation of the information resulting from this research effort.

Organization A is classified as a (3, 1), Type 7 organization. It has a mature TQM effort but it does not have a mature diversity management effort. However, in order for Organization A to continue to move forward in its TQM effort, it will have to move forward in the management of race/ethnicity and gender diversity. Based on the demographics of Organization A, 32% of its workforce is composed of minorities. This is due to Organization A's location. Organization A is located in a area that is highly populated with minorities. Unless Organization A relocates, many of the people who will seek employment there will be minorities. Therefore, in order for Organization A to continuously improve, it is going to have to initiate diversity awareness training for all of its workforce as well as change the systems, structures, and management practices that inhibit employees from achieving their full potential.

Organization B is also classified as a (3, 1), Type 7 organization. It has a mature TQM effort but it does not have a mature diversity management effort. However, in order for Organization A to continue to improve its TQM effort, it will have to continue to move forward in the management of race/ethnicity and gender diversity. Based on its demographics, 42% of Organization B's workforce are women. Industry reports state that large numbers of women work in industries that provide information as a service.

Based on observations from my site visit to Organization B, women do hold several key positions and they are respected in the organization. However, only 27% of Organization B's management consists of women. This is moderately low considering

women make up 42% of its workforce. If Organization B is going to continuously improve, it is going to have to initiate diversity awareness training to all employees so everyone will value and understand others' differences. This is important for the women and minorities who are already in the management ranks in the organization so they can continue to contribute to the success of the organization while being valued and respected by all employees. Also Organization B is going to have to change its systems, structures, and management practices in order not to inhibit employees from reaching their full potential. This is very relevant to Organization B because if its systems, structures and management practices were free of barriers, the number of women in management would be greater than 27%.

Organization C is classified as a (3, 2), Type 8 organization. Organization C has a mature TQM effort and is at the intermediate stage in the level of maturity of its diversity management effort. However, in order for Organization C to continue to improve its TQM effort, it will have to continue to move forward in the management of race/ethnicity and gender diversity. This is crucial for Organization C. Presently, in Organization C, 26% of its workforce consists of women and 15% of its workforce consists of minorities. Historically, women and minorities do not work in high technology organizations. However, given the increasing numbers of women and minorities entering the workforce and the shrinking labor pool, Organization C will see greater numbers of women and minorities working in high technology industries. Therefore, in order for Organization C to compete for competent diverse employees, it is going to have to do a good job of diversity management in order to lure competent women and minority employees to its organization.

Therefore Organization C will have to include everyone in its diversity management effort and not just management if diversity management is to become a way of doing business and a culture change. Also, Organization C will have to go through stage 2,

valuing and understanding diversity if its diversity management initiative is going to be a part of its culture. Appreciating others' differences without criticism and judgment is important if employees are going to work well with each other. Changing systems, structures, and management practices without employees understanding why may not yield lasting employee support and cooperation. Employees need to know why the organization is embarking on diversity management as a means aimed at improving organizational performance.

Organization D is classified as a (2, 3), Type 6 organization. Organization D is at the intermediate stage in its TQM effort and has a mature diversity management effort. However, given the fact that Organization D has a very mature diversity management practice and utilizes the full potential of all of its employees, it will be less difficult for Organization D to evolve from stage 2 in its TQM practice to stage 3. This is due to Organization D's employees valuing, understanding, and respecting each other which results in employees working well together in groups. Therefore, in achieving stage 3 in the level of maturity of its TQM efforts, Organization D has to map out the strategies to be implemented to manage its TQM/CI efforts. Therefore, in improving its TQM efforts, Organization C will continue to improve its diversity management efforts since several elements of TQM are also elements of diversity management.

In Chapter 6, I've developed a program to assist organizations in the management of diversity in the context of large-scale organizational change efforts aimed at improving organizational performance. This program can be used by any of the nine types of organizations. However, organization types 6 and 9 may want to use this program to benchmark their diversity management practices. Organizations that do not have a mature TQM or diversity management effort or is at the intermediate stage in both efforts may want to use this plan to manage diversity in the context of improving overall organizational performance. Whereas, organizations that have a mature TQM effort and a less mature

diversity management effort or is at the intermediate stage in its diversity management effort may want to use this plan to manage diversity in the context of improving overall organizational performance but with modification in areas where the organization is mature with regard to efforts related to continuous improvement. In Chapter 6, I apply the knowledge gained from this chapter to develop a managing diversity plan aimed at improving organizational performance.

CHAPTER 6 PROGRAM TO ASSIST ORGANIZATIONS IN MANAGING DIVERSITY IN THE CONTEXT OF LARGE-SCALE ORGANIZATIONAL CHANGE EFFORTS AIMED AT IMPROVING PERFORMANCE

In this chapter, I will outline a program/plan to assist organizations in managing diversity in the context of large-scale organizational change efforts aimed at improving performance. This program was developed based on the data, facts, information, knowledge, past and present experiences acquired during this research, and the knowledge I've gained as a graduate student at Virginia Tech.

In Chapter 5, Section 5.6., I noted organizations can be classified into nine types with respect to the stage of the level of maturity of an organization's TQM and diversity management practice. For this research, my program/plan outlined in this chapter can be used by any of the nine types of organizations with modifications depending on the level of maturity of the organization's TQM effort.

In the 1990's, organizations are focusing on large-scale change efforts like TQM/CI as a means of remaining competitive and as a way of doing business. Also, in the 1990's the demographics of the American workforce are changing and increasing numbers of women and minorities are entering the workforce. Therefore, organizations are going to have to manage the increasing numbers of race/ethnicity and gender diverse employees as well as other types of diverse employees in the context of their large-scale organizational change efforts. As a means of remaining competitive and as a way of doing business, organizations are going to have to find a way to manage diversity in the context of large-scale organizational change efforts aimed at improving organizational performance.

A suggestion I have for organizations doing this is by mapping out a plan to manage race/ethnicity and gender diversity. Organizations would design and develop a strategic plan to manage race/ethnicity and gender diversity aimed at improving

organizational performance. The purpose of this initiative, in the context of large-scale organizational change, is to assist in changing the culture of the organization to one that values others' differences and utilizes the full potential of everyone in its workforce as a means of remaining competitive and achieving continuous improvement.

In the following sections, I will outline a program/plan to assist organizations in managing diversity in the context of large-scale organizational change efforts aimed at improving performance. This plan is for organizations that: 1) are not practicing TQM or diversity management and are not familiar with strategic planning, and 2) do not have sophisticated TQM practices, practice little or no diversity management and little or no strategic planning. However, if an organization is already successfully practicing TQM but little or no diversity management and is doing some form of strategic planning as an initiative aimed at improving performance, then it can modify this plan to meet its diversity management objectives or goals.

6.1. Grand Strategy System, A Plan for Managing Diversity in the Context of Large-Scale Organizational Change Efforts Aimed at Improving Performance

Organizations embark on many major themes or initiatives in the context of large-scale organizational change efforts aimed at continuously improving performance. Some of these themes/initiatives range from Just-In-Time to the use of statistical process control. However, for this research, I'm focusing on managing race/ethnicity and gender diversity as a theme/initiative aimed at continuous improvement in the scheme of large-scale organizational change. Therefore, in the next several paragraphs I will describe how this theme/initiative, the management of race/ethnicity and gender diversity, will evolve in the Grand Strategy System over roughly a seven year time period.

In Section 2.3.1., I discussed a Grand Strategy System (GSS) as a plan that organizations use to map out the strategies to be implemented to successfully manage its TQM/CI efforts. In this section, a Grand Strategy System will be used to map out the strategies to be implemented to manage race/ethnicity and gender diversity in the context of large-scale organizational change efforts aimed at improving performance. Sink and Monetta (1991) state that a GSS has three components: 1) documenting the past and the present, 2) fronts or sub-systems areas of activities, and 3) a performance improvement plan for the future.

6.1.1. Documenting and Understanding the Past and Present

In initiating the diversity management effort, organizations must perform a longitudinal study of what has been done in the past and what is being done currently to integrate women and minorities into the organization and the TQM/CI effort. Therefore, the factors organizations should consider when documenting past and present involvement of minorities and women in the organization are:

- Demographics of the different types of ethnic groups and women in different levels, both horizontally and vertically.
- Audit of the organization's culture, human resource systems such as AA/EEO, recruitment, performance appraisals, potential assessment and promotion, and compensation. The objective of this audit is to uncover sources of potential bias unfavorable to members of certain cultural groups and to identify ways that corporate culture may inadvertently put some members at a disadvantage.
- Critical incidents related to diversity; for example, law suits, high turnover, and employee complaints.

- Quality of work life surveys, what areas were surveyed, improvements made.
- Cognitive style and personality assessments, who took assessments, for what purpose.
- Use of teams, types, for what purpose, demographics of teams based on sex and race.

The goal of this documentation process is to develop a standardized corporate recollection that will help maintain organizational plans, purposes, and strategies related to the employment of race/ethnicity and gender diverse employees.

6.1.2. Fronts

As mentioned in Section 2.3.1.2., planning; infrastructure; culture; education, training, and development; motivation, rewards, and recognition; communication; measurement; politics; and technology are sub-systems within the organizational system that have to be managed simultaneously in order for an organization to continuously improve and maintain organizational competitiveness (Kilmann, 1989; Mohrman and Mohrman, 1989; and Sink and Monetta, 1991). For this research, I will address the management of the following fronts: planning; infrastructure; culture; education, training, and development; motivation, rewards, and recognition; communication; and measurement in the context of diversity management.

Technology is a central front with respect to TQM. In improving organizational performance, technology is vital for re-engineering organizational processes. However, technology is not as salient a front with respect to diversity management.

The political front overlaps the cultural front as it relates to race/ethnicity and gender diversity management. The glass ceiling, the good old boy network, and informal systems

are central issues in diversity management that relate to both the cultural and political fronts. However, I did not study this front, so I don't have data pertaining to it and I'm not experienced enough to address the political front as it relates to this research.

As I noted earlier in this section, there are many themes/initiatives that support the management of each of these fronts. The planning front, the lead front that drives all other frontal movement, has the Strategic Performance Improving Planning Process (SPIPP) as an initiative that if managed can keep the planning front from lagging behind the other fronts. SPIPP efforts assist the planning front in its contribution to continuous improvement.

Managing diversity is a culture front initiative. Managing diversity is an initiative that, if managed, will contribute to keeping the culture front from lagging behind the other fronts. However, frontal sub-systems have to be managed in the context of the managing diversity initiative in order for the initiative to assist the culture front in contributing to continuous improvement.

6.1.3. Performance Improvement Planning for the Future

As cited in Section 2.3.1.3., the SPIPP creates a road map an organization follows to achieve its end goal of continuous performance improvement. The steps of the planning methodology an organization should use to incorporate a strategic plan for managing race/ethnicity and gender diversity in the context of large-scale organizational change aimed at performance improvement are:

Step 1- Organizational Systems Analysis (OSA). Table 6.1. identifies areas an organization can examine to achieve its diversity management and continuous improvement goals. This list may be tailored to an organization's needs. Not included in this OSA list are policies; they are

important elements that shape and guide an organization's diversity management and continuous improvement efforts. Figure 6.1. defines principles, policies, and other terms associated with diversity management.

Step 2- Strategic Objectives

Step 3- Tactical Objectives

Step 4- Implementation Planning

Step 5- Implementation Management

Step 6- Performance Measurement

Step 7- Implementation, Review, and Evaluation

**Table 6.1. Organizational Systems Analysis
(Adapted from Sink and Tuttle, 1989)**

OSA Area 1	Vision (Corporate Long-Range Objectives)
OSA Area 2	Guiding Principles (Values and Beliefs)
OSA Area 3	Mission (Purpose)
OSA Area 4	Policies
OSA Area 5	Input/Output Analysis
OSA Area 6	Internal Strategic Analysis
OSA Area 7	Current Performance Levels
OSA Area 8	Roadblocks to Performance Improvement
OSA Area 8	External Strategic Analysis

6.1.4. The Phases of Large-Scale Organizational Change

The organization will go through phases of change during this seven year diversity management planning and implementation process. Morris (1979) outlines a model of the

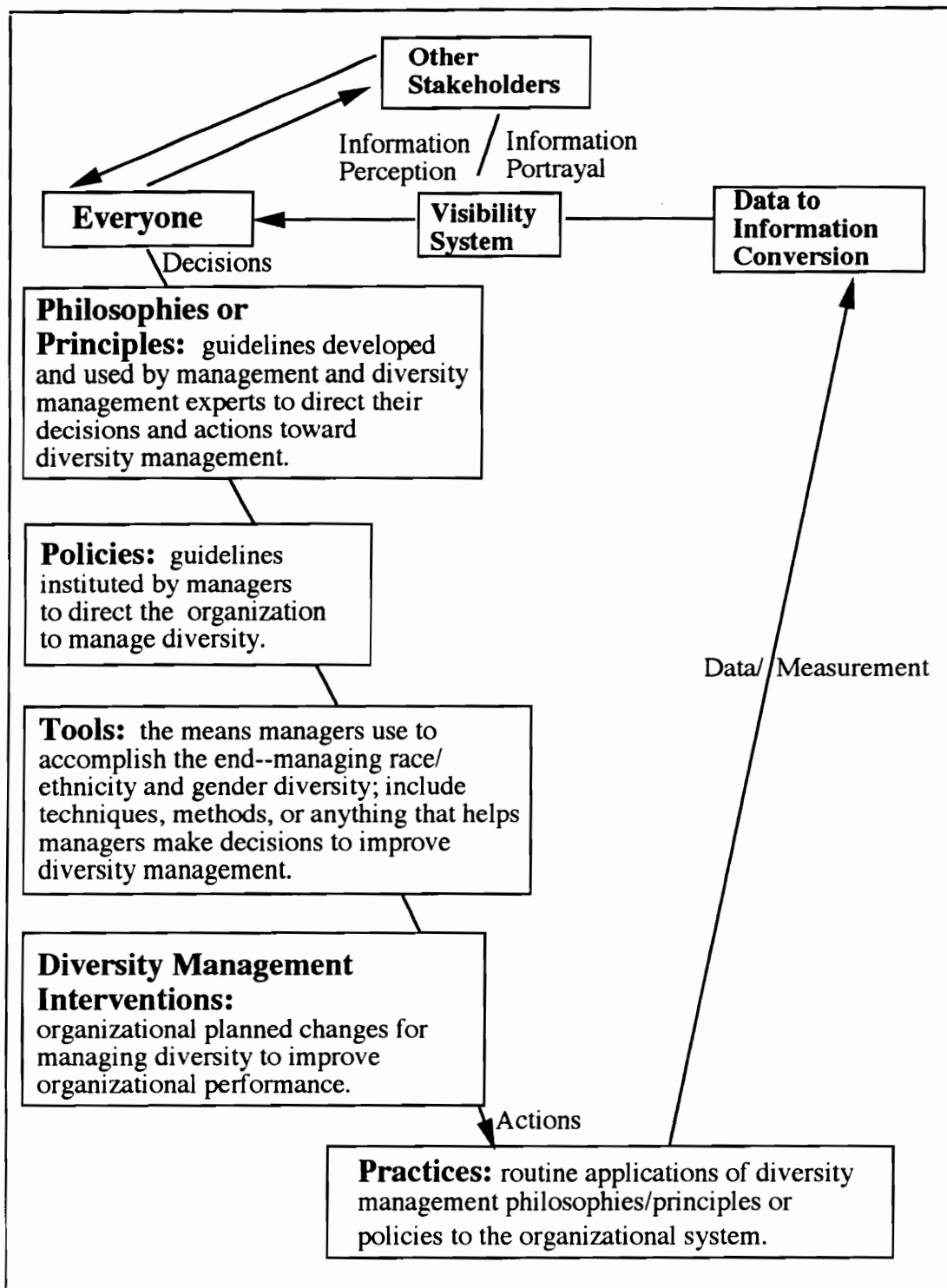


Figure 6.1. Terms Associated with Diversity Management Implementation In a TQM Environment
(Adapted from Pang, 1990)

phases of change an organization goes through to bring about behavior change, to implement new methods, or bring new systems into being. All organizations that make a change in its organizational processes, methods, or systems may not go through all of these phases of change. Morris (1979) states the order in which the phases of change are presented suggests a certain logic, but an actual change process may involve not only a different ordering but also a shifting back and forth among the phases. Morris (1979) states the change process as:

Phase 1--Scouting, Targeting, Diagnosis

Phase 2--Stress Relief, Catharsis

Phase 3--Self-Awareness

Phase 4--Self-Evaluation

Phase 5--Self-Designed Change Strategies

Phase 6--Trying out the New Behavior

Phase 7--Reinforcing the New Behavior

Throughout the time the organization is changing towards a culture that values others' differences, its members may not experience all of these different phases of change. I have outlined in the plan the phases of the change process an organization goes through during the different years of planning, implementing, and deploying diversity management.

During the first two years of SPIPP, top management's objective is to unfreeze the organization and prepare it for race/ethnicity and gender diversity management. Also during each year of the plan, the organization goes through one or several of the stages of Deming's cycle for continuous improvement. Deming (1986) states the continuous improvement effort is a never ending circular cycle called plan, do, study, and act. During this never ending cycle for continuous improvement, an organization plans to improve, does it, studies the results, and acts either to standardize the change or begin the cycle

again with new information. In this case, the organization plans to manage diversity aimed at improving organizational performance. I have mapped out, for each year, where the organization is in Deming's cycle for continuous improvement with respect to the plan.

6.2. SPIPP for Continuous Performance Improvement With Emphasis on Managing Diversity

I have mapped out a seven year plan to assist organizations in their management of diversity aimed at improving organizational performance that consists of three phases. I chose seven year plan that consists of three phases for the following reasons:

Phase 1 (Start-up)--Years 1 and 2, the unfreezing of the organization in preparation for initiating GSS aimed at continuous improvement with emphasis on the management of race/ethnicity and gender diversity management;

Phase 2 (Growing to Maturity)--Years 3, 4, and 5, the accomplishing the organization's tactical objectives (actions the organization can begin pledging resources to that will lead toward accomplishing its strategic objectives); and

Phase 3 (Maintaining Stability) --Years 6, and 7 the accomplishing of the organization's strategic objectives (including diversity management objectives the organization wants to accomplish).

Figure 6.2. displays the conceptual model for the management of race/ethnicity and gender diversity as it's integrated into the organizational system over time. For each year of the plan, I will make diversity management interventions in the appropriate front(s) to achieve the plan and the long-term culture change. This plan is presented in the sequential order I think should be followed for an organization to achieve its diversity management goal(s). However, organizations can modify the plan to best accommodate their needs.

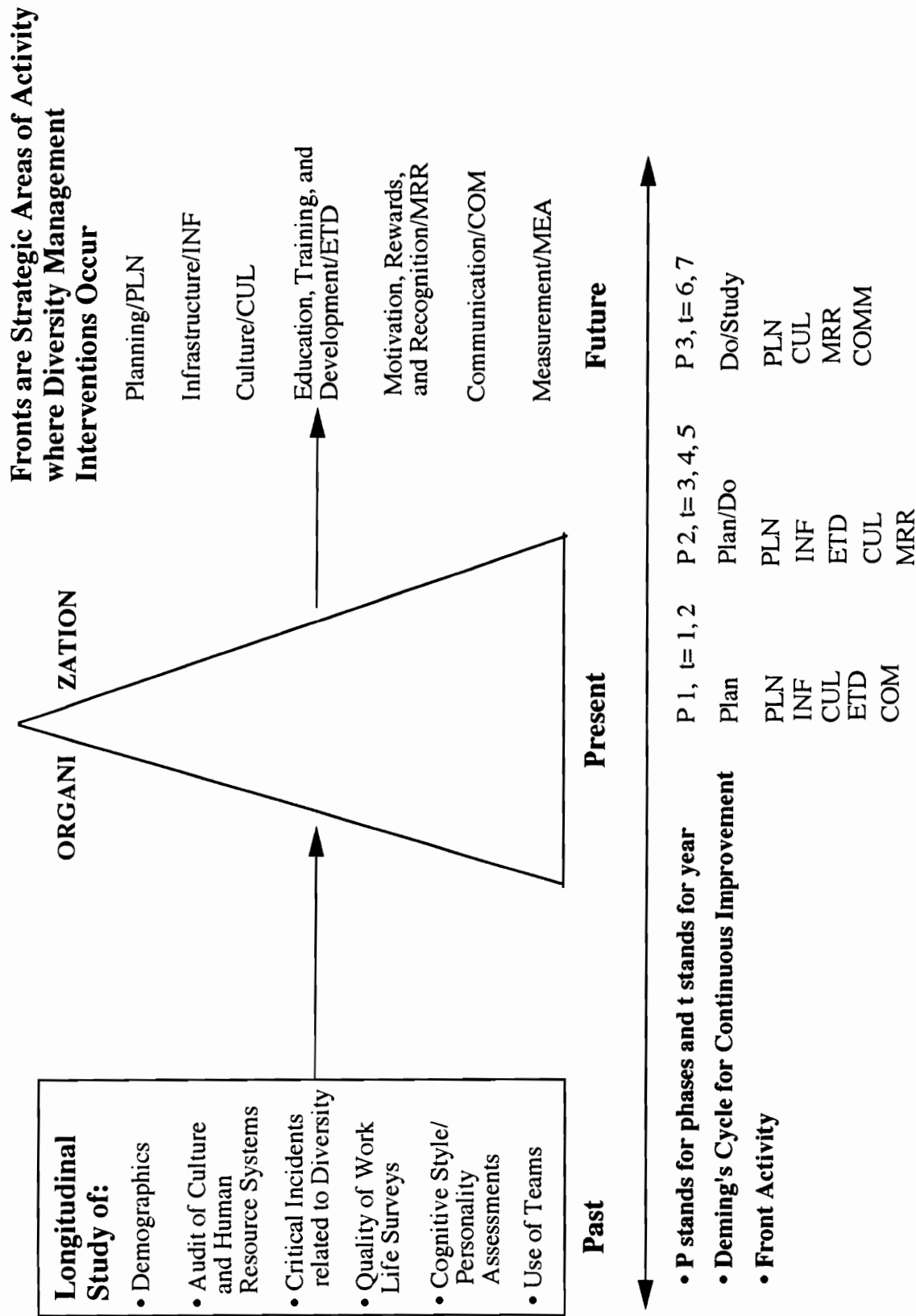


Figure 6.2. Conceptual Model for the Management of Race/Ethnicity and Gender Diversity as It's Integrated into the Organizational System Over Time

6.2.1. Primary Focus in Phase 1, During Years 1 and 2 of SPIPP

In Years 1 and 2, the organization is preparing for SPIPP and attempting to integrate managing diversity into those improvement efforts. Relative to Deming's continuous improvement cycle, the organization is planning to continuously improve through fronts and their initiatives. Top management is continuing to embark on the SPIPP initiative as a means of managing race/ethnicity and gender diversity. The organization is also beginning to implement diversity management interventions in various frontal areas in order to achieve its diversity management goals and/or objectives.

6.2.1.1. Continuous Improvement Progress that Will Occur during Years 1 and 2

In Years 1 and 2, top management is preparing the organization to do GSS in order to improve organizational performance. There are many themes/initiatives that support fronts that the organization can utilize to contribute to the improvement of organizational performance. However, top management has chosen to focus on the management of race/ethnicity and gender diversity as one frontal initiative aimed at improving organizational performance. Therefore as related to the Deming Cycle, the organization is planning to embark on two frontal initiatives aimed at continuously improving organizational performance by doing SPIPP with emphasis on race/ethnicity and gender diversity management.

6.2.1.2. Phases of Change the Organization Will Experience During SPIPP with

Regards to Managing Diversity

In Years 1 and 2 of SPIPP, the organization will experience phases 1, 2, 3, 4, and 5 of Morris's change process: *scouting, targetting, and diagnosis; stress relief and catharsis; self-awareness, self-evaluation and self-designed change strategies*. During the scouting, targetting, and diagnosis phase, the organization's attention comes to focus on a limited,

although perhaps vaguely understood, problem area or source of difficulty and dissatisfaction; the management of race/ethnicity and gender diverse employees. The organization begins to refine feelings about "what is wrong" or where change is likely to have the best benefits-to-burdens ratio with respect to improving organizational culture.

During the *stress relief and catharsis* phase, top management reduces inhibiting effects of past frustrations, anxieties, and conflicts in dealing with race/ethnicity and gender problems and issues. Blame casting, fault finding, injustices, and so on are expressed, set aside, and the organization's attention is, to some degree, freed for concentration on the change process and the development of a plan to manage race/ethnicity and gender diverse employees.

Top management, during the *self-awareness* phase, realizes a change has to be made. This phase increases the organization's self perception. The organization gathers data, models its present system, and studies "how to implement the change."

Top management, during the *self-evaluation* phase, evaluates its present behavior. As a result of this evaluation process, top management's goals, standards, and objectives become clearer and their relation to their existing behavior toward diversity management. There is a growing appreciation of the need for change, the material and psychological costs of change, and the development of realistic expectations about the change process.

During Year 2, top management experiences the first stage of *self-designed change strategies* and top management accepts its plans for new behaviors, methods, and systems regarding diversity management. During the end of Years 1 and 2, top management has gone through five phases of Morris's phases of change. However, during Year 1, Top management focuses on the self-evaluation phase of Morris's change process. They have accepted the need for change as they prepare to move into Year 2 of SPIPP. During Year 2, management's focus is on self-designed change strategies, its new behaviors, methods, and systems for the change.

6.2.1.3. Fronts that are Emphasized to Manage Race/Ethnicity and Gender Diversity

6.2.1.3.1. Infrastructure Front. The first step top management in the organization must take (with guidance of a consultant, optional) in accomplishing its goal of continuous improvement is to create a steering committee and a design and development team to architect and engineer the GSS. The design and development team, as an architect for GSS, addresses special themes to improve organizational performance as well as the interventions the organization make within frontal areas that contribute to the accomplishment of these special themes. As I mentioned earlier, the management of race/ethnicity and gender diversity is a special theme the organization is addressing in the context of continuous performance improvement. Some responsibilities of the design and development team with regards to the management of diversity are to enhance and fine tune the infrastructure front as well as recommend a planning team to top management. Membership of the design and development team should range from four to six people. However, in addressing the theme of diversity management, the team should seek additional competent minorities and women who have knowledge of race and gender relations within the organization and strategic planning. All members of the design and development team should take the Myers Briggs Type Indicator personality test; the Thomas-Kilmann Conflict Mode Instrument; and the Dominance, Inducement, Steadiness, and Compliance Profile Analysis. The purpose for members taking these assessments is for them to understand and modify their behaviors in order to improve and enhance group performance.

The responsibility of the planning team is to build and lead the SPIPP to manage race/ethnicity and gender diversity and improve performance. Planning team members are a cross functional group of people. Its membership should consist of the design and development team, top management, and leaders who represent minority and women

employees. Members should be competent, willing individuals who are knowledgeable about planning, organizational systems, and race and gender relations within the organization. Planning team membership size should be large in order to create a sense of community building among its members (Weisbord, 1987). A large membership will submit many point of views, opinions, and feelings that represents the population of employees on a whole.

Membership of the Steering Committee should consist of the President of the organization and/or CEO, selected members of the Board of Directors and top management, and external individuals who have knowledge of diversity management. Membership on this committee can vary depending on the organization. Figure 6.3. displays the infrastructure for the design, development, implementation, deployment, and management of the plan.

Also during the first year of planning, top management may want to create a diversity or labor management task force to research the diversity issue in the organization. Members of the task force should be racially/ethnically and/or gender diverse, competent, and knowledgeable about the concept of diversity, patient, and willing to contribute. Organizations may seek an outside consultant to assist in the formation of the task force. The objective of the task force is to study the issues and make recommendations to the planning team regarding diversity management. Taken from Section 2.1.4., Belfry and Schmidt (1988-89) state:

The task force should include an appropriately diverse selection of employees and a representative from employee relations and training and development. It is up to the task force to assess the current and future demographics of the organization. The task force should also develop a statement of corporate philosophy and what the goals should be in managing the race/ethnicity and gender diverse workforce.

The best way for the task force to gain access to what employees really think or feel about diversity management in the organization is through the use of a confidential survey.

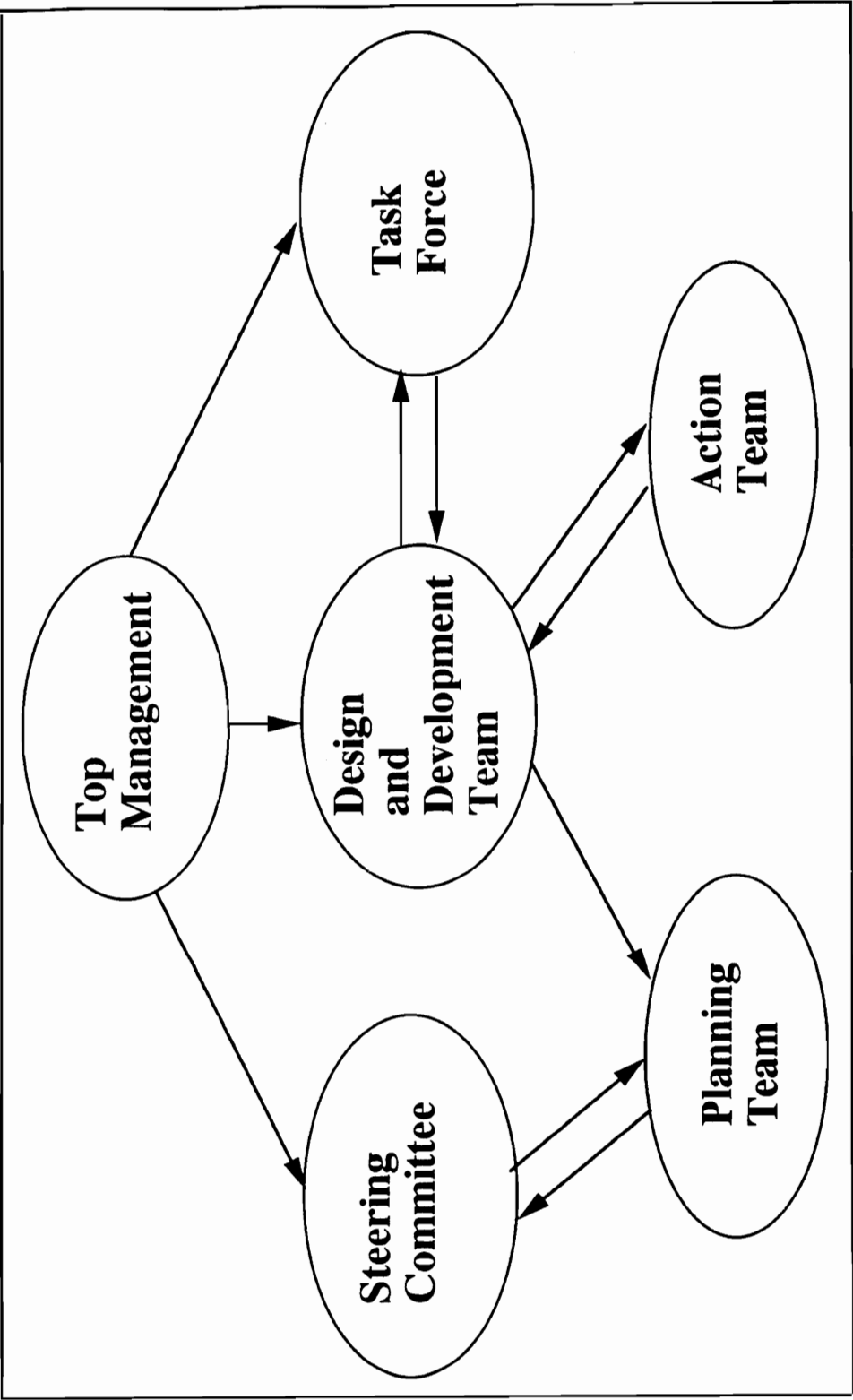


Figure 6.3. Infrastructure for the Design, Development, Implementation, Deployment, and Management of the Plan to Manage Diversity in a TQM Environment

After the survey has been studied, then the task force can outline priorities, define problem areas, generate and evaluate solutions, and develop a written action plan to be presented to the planning team. Also, members of the design and development team with assistance from the task force should perform a longitudinal study of what has been done in the past and what is being done currently to integrate women and minorities into the organization and the continuous improvement effort.

The purpose for creating action teams during Year 1 is so these members get educated and trained about diversity management. Action teams are accountable for implementing and deploying tactical objectives related to managing race/ethnicity and gender diversity and TQM/CI. The action team is responsible for developing an action plan for implementing and deploying the assigned tactical objective. Action team membership should range from three to five people. Members of the action team should be individuals who have an interest in race and gender relations in the organization, competent, willing to contribute, and are available to participate. No one should sit on more than one action team, which will eliminate action team members from becoming overextended. The action team is an ad-hoc assignment beyond its members' everyday jobs.

6.2.1.3.2. Planning front (SPIPP). During Years 1 and 2, the planning team does the 7-step planning process for mapping out its plan for improving performance while attempting to integrate managing diversity into those improvement efforts. During Year, the planning team places emphasis on **steps 1 and 2**, Organizational Systems Analysis and strategic objectives, of the planning process. OSA prepares the planning team for planning by improving its understanding of the organization. In doing OSA, the planning team identifies eight areas an organization can examine to improve its understanding of the organization. The eight areas are identified in Table 6.1. In OSA Step 1, the planning team develops the organization's vision (long range objectives), guiding principles (values and

beliefs), mission (purpose), and policies (guidelines instituted by management to direct the organization) as related to continuous performance improvement and a culture that values all employees.

The input/output analysis of the organization identifies its downstream systems, customers (both internal and external) or anyone that receives outputs of the system; upstream systems, customers, suppliers, vendors, personnel, or any organizational system the organization receives inputs from; outputs; transformation processes, activities that convert inputs to outputs; and inputs. The planning team should do an internal strategic analysis to identify the organization's strengths, weaknesses, internal factors, issues, problems, and opportunities in order to see what's happening in the organization before developing the plan. It should also identify structures, staffing, facilities, and technologies it employs. The organization should identify structures that support and enhance the strategies for achieving its diversity management initiative and staffing to see if the right people have been selected and placed in the right positions in the organization to achieve its SPIPP plan for continuous improvement with emphasis on managing diversity. The planning team should identify the current performance level as it relates to its practice of diversity management at whatever stage of evolution (can get from longitudinal study) and the roadblocks to diversity management.

There are a variety of techniques that can be used to examine these areas such as a role-play exercise, small group meeting with a facilitator, and Nominal Group Technique. This list is not exhaustive. The result of these techniques used for acquiring information for OSA is the sharing of quality information that will prepare the team for decision making.

In doing step 2, strategic objectives, the planning team identifies the performance improvement objectives the organization wants to accomplish in the next five to seven

years. The planning team should use the Nominal Group Technique (NGT) for developing strategic objectives.

In Year 2, the planning team recycles the 7 step planning process with emphasis on **steps 3, 4, and 5** (tactical objectives, implementation planning, and implementation management). In doing step 3, the planning team identifies the actions (tactical objectives) it should take within years 2 through 4 that will lead to accomplishing its strategic objectives. The tactical objectives have to be initiated within the 2 to 4 year time frame. The Nominal Group Technique is used to identify and prioritize the planning team's list of tactical objectives. In developing these objectives, individuals should be influenced by the organization's vision, mission, roadblocks, and strategic objectives developed earlier.

In doing step 4, implementation planning, the planning team determines how it should proceed with the implementation of the tactical objectives. The planning team should identify the tactical objectives that are going to be worked on during Year 2. A useful tool for assigning tactical objectives is an accountability matrix. Action teams assist in accomplishing these tactical objectives.

Action plans or scoping proposals are developed for those objectives requiring them. Every tactical objective assigned to an action team necessitates an action plan. For those tactical objectives assigned to an individual or function, the planning team has to decide if an action plan is needed. The determining factor may be the complexity of the objective.

In doing step 5, implementation management, the planning team decides how the planning, organizing, executing, measuring, and evaluating of the implementation of the tactical objectives should be done. Those individuals or action teams working on the implementation of the assigned tactical objectives can seek help or approval as needed to assist them in the implementation process.

6.2.1.3.3. Culture Front. Also during Year 1, in doing SPIPP step 1, OSA, the organization focuses on the culture front. In doing OSA step 2, the organization identifies its identity and values as related to continuous performance improvement and a culture that values all employees. Culture is shared values among the members of an organization; it is their values, beliefs, traditions, and norms. The organization's culture identifies what the organization stands for and identity is defined as what the organization is (Kurstedt, 1991).

Schein (1985) defines values as the second level of culture that needs to be understood for conceptual enlightenment. Schein states that all cultural learning ultimately reflects someone's original values, their sense of what "ought" to be as distinct from what is. When a group faces a new task, issue, or problem, the first solution proposed to deal with it can only have the status of a value because there is not as yet a shared basis for determining what is factual and real. If the solution works and the group has a shared perception of that success, the value gradually starts a process of cognitive transformation into a belief and, ultimately, an assumption.

6.2.1.3.4. Education, Training and Development Front. During Year 1, top management focuses on the education, training, and development front. Top management will hire outside diversity consultants to come in and teach a two or three day diversity awareness training course to the infrastructure teams. The purpose of training the teams is so their members will understand what diversity management is and why it should be used as a means of improving organizational performance. The first training and education sessions/courses for diversity management, diversity awareness, and sensitivity training will focus on level 1 knowledge: theories, concepts, philosophies, and principles; a broad, general background understanding of diversity and race/ethnicity and gender diversity management. The diversity awareness and sensitivity training should consist of some or all of the following:

- benefits of diversity management for organization, individuals, and work groups;
- examines interactively the effects that labeling and stereotyping have on individuals;
- focuses on the various kinds of discriminations found in the workplace;
- focuses on the skills and attitudes required to lead a diverse workforce;
- focuses on the mechanics of power;
- examines the necessity for diverse leadership;
- focuses on self-assessment and planning for leadership in the future; and
- explores what sexual harassment is and proper etiquette related to it

Tools used to implement this education and training are literature, films/video, tapes, and lectures/presentations.

During Year 2, all management should take level 1 knowledge from outside consultants. All management should take diversity awareness and sensitivity training as a means of understanding the benefits of diversity management to the organization, the effects that labeling and stereotyping have on individuals, and to learn skills and attitudes required to lead a diverse workforce.

6.2.1.3.5. Communication Front

Also during Year 2, the organization should focus on the communication and culture fronts by communicating its vision, mission, guiding principles, principles, and policies regarding organizational culture in the context of TQM/CI and diversity management. The organization should deploy this information downward within the organization through meetings, memos, information boards, newsletters, newspapers (i.e., by whatever modes used for communication in the organization). However,

communication to employees about the organization's diversity management efforts and goals should be on a regular basis. New information concerning the efforts and/or goals should be communicated on a timely basis to employees. The education and training of all management on diversity management and the communication of information to all employees regarding the organization's vision, mission, guiding principles, and policies pertaining to the value of people within the organization is its first step toward an organizational culture that values all employees and accepts their differences.

6.2.1.4. Obstacles and Key Issues the Organization Will Have to Address during Years 1 and 2

An obstacle the organization may have to address during Year 1 of SPIPP is a lack of openness to talk about diversity management and the needs and issues of diverse employees among the teams and employees. Openness is necessary if the planning and design teams are to develop and execute a plan to manage diversity. Also, openness is necessary among employees if the task force is to gain access to what employees really think or feel about the treatment of minorities and women and diversity management in the organization.

Also during Year 1, top managers are going to have to find an internal champion or change agent to lead the diversity management effort. Therefore, they are going to have to figure out a way to find an internal champion who is competent; knowledgeable about the organization, race and sex relations in the organization, and strategic planning; available; and willing to lead the effort. The organization may want to obtain an outside consultant to assist in the effort.

Managers spend their time doing three things in the organization:

- A—administering the process; doing the job
- B—building the business; improving performance
- C—catering to crises; fighting fires (Kurstedt, 1990)

Managers are faced with continuous improvement activities being squeezed out of their schedules by A and C activities. Therefore, in order for the organizations to improve performance, its managers are going to have to be able to manage and budget their time to do B activities such as diversity management.

A critical issue that needs to be addressed in Year 2 is members of management feeling they don't want to be involved in the organization's diversity management efforts. For example, they don't feel there's a need for them to participate in diversity awareness and sensitivity training. They may feel that diversity management may be a means of removing them from management positions or a means of promoting minorities and women into positions of leadership where they would be their bosses.

Top management is faced with driving out fear about diversity management experienced by management. Deming (1986) states that a means of driving out fear is knowledge. Therefore, top management has as an obligation to make sure that the diversity awareness and sensitivity training drives out fear regarding diversity management.

Another key issue top management and the design team may have to address in Year 2 is not getting all management trained in diversity awareness during this year. If management is unable to get all management trained during Year 2, it should train those remaining in Year 3.

6.2.2. Primary Focus in Phase 2, During Years 3, 4, and 5 of SPIPP

6.2.2.1. Continuous Improvement Progress that Will Occur During Years 3, 4, and 5

In Years 3, 4, and 5 with respect to Deming's cycle for continuous improvement, the organization is doing diversity management interventions in various frontal areas aimed at achieving organizational performance. The organization, in its planning efforts, have identified areas where diversity management can improve organizational systems. Also during these years, the organization is measuring its overall organizational performance to see if diversity management interventions in the education, training, and development front has improved management's relationship, understanding, and sensitivity toward diverse employees. If a positive impact has been made in the relationship between management and diverse employees, then the organization is beginning to change its culture to one that values all employees

In Year 5, all employees are taking diversity awareness and sensitivity training. Therefore, the organization is studying the results of its diversity management interventions/efforts to see if the organizational culture has become reflective of its guiding principles with regards to diversity management. If organizational culture has begun to change, then diversity management has made a contribution to the management of the culture front which will continuous improvement.

6.2.2.2. Phases of Change the Organization Will Experience During SPIPP in Years 3, 4, and 5

During years 3, 4, and 5 top management will experience phases 4, 5, and 6 of Morris's change process, *self-evaluation*, *self-designed change strategies* and *trying out the new behaviors*. Top management continues to evaluate its present behavior and from this define its goals regarding diversity management. In the self-designed change strategy

phase, management accepts its plans for new behaviors, methods, and systems regarding diversity management and develops strategies to allow employees to participate in the diversity management initiative. Also during this phase, top management tests its new behaviors in the organization. This is done by distributing quality of work life surveys aimed at addressing management and employee relationships and organizational culture. In trying out new behavior, the organization experiments with new diversity management interventions in addition to consistently modifying, improving, and refining its diversity management efforts.

6.2.2.3. Fronts that are Emphasized to Manage Race/Ethnicity and Gender Diversity

6.2.2.3.1. Planning Front (SPIPP). In Years 3, 4, and 5, the planning team recycles the 7-step planning process with emphasis on **steps 4, 5, and 6** (implementation planning, implementation management and performance measurement). In doing step 4, the planning team focuses on how it should proceed with the implementation of tactical objectives. The planning team should identify which tactical objectives are currently being worked on, which have not been worked on, and which are new.

In doing step 5, the planning team should review the planning, organizing, executing, measuring, and the evaluating of the implementation of the current tactical objectives. The action teams assist in accomplishing these tactical objectives. Step 5 focuses on the organization measuring to see how well it's performing with respect to achieving its tactical objectives that lead to the accomplishment of its strategic objectives including those that relate to diversity management.

In doing step 6, the planning team should operationally define performance for the organization for diversity management. The team should translate performance into desired outcomes or major performance dimensions (MPDs) for diversity management while identifying the segments of information required for each. The organization measure to see

how well it's performing with respect to achieving its tactical objectives based on the MPDs it has identified. As a result of identifying the segments of information required for MPDs, managers should be able to use this information to help them solve problems and make decisions pertaining to improving organizational performance and diversity management.

6.2.2.3.2. Infrastructure Front. During Year 3, organizations should establish a Diversity Steering Committee that represents all minorities and women. This committee should meet with top management on a regular basis to provide feedback and make recommendations regarding race/ethnicity and gender diverse employee issues and needs in the organization. Minority and women organizations should be established to organize special activities and events related to these groups. These organizations should also be a forum and a source for minority and women employees to network, support, mentor, and role model each other. An advisory committee should be formed to develop programs for personal and professional development, council, advise, mentor, and role model the women and minorities in these organizations.

6.2.2.3.3. Education, Training, and Development Front. During Year 3, all management are trained at levels of knowledge 3 and 4, methods and skills. Methods are described as knowing what to do and how to do it, what the steps are to do it, and the understanding of the methods used in or insinuated about diversity management. In achieving level 4 knowledge (skills), individuals have an understanding of levels of knowledge 1, 2, and 3, have the skills to apply methods, and have experience in the application of the methods.

Levels of knowledge 3 and 4 education, training, and development for management should focus on leadership education: team building, group dynamics, conflict resolution

and management, effective communication, empowerment, and personality and cognitive style testing for awareness and behavior modification.

Also during Year 3, the organization should begin educating, training, and developing others in the organization who are interested, competent, and willing to teach courses to employees based on levels of knowledge 1 and 2. Potential instructors should take levels of knowledge 1, 2, 3, and 4 training courses.

Managers in each department should compose a list of potential instructors. This list should be given to human resources to review. Employees who human resources feel are potential candidates to instruct courses should be interviewed by them and by the outside consultants who are presently teaching these courses to see if employees are competent and have the temperament for teaching the courses. Personality and cognitive tests should also be given to potential candidates to see if they have the temperament for teaching these courses, since the courses are sensitive, emotional, and confrontational.

During Year 4, all managers and instructors should have attained level of knowledge 5, have a broad experience in levels of knowledge 1, 2, 3, and 4 to the extent that they can teach other employees the theories, methods, and skills surrounding diversity management. In attaining level of knowledge 5, all instructors should have taken Instructional Management I and Instructional Design courses. These courses consist of effective teaching and the development of a basic level of knowledge and practical experience in delivering instruction (See Organization D's Case Description, Section 4.3.1.2.).

During Year 5, all instructors should begin initiating levels of knowledge 1, 2, and 3 training to all employees. This training should consist of diversity awareness and sensitivity, sexual harassment, team building, group dynamics, conflict resolution, empowerment, and effective communication training. All employees should attend two one-day and one half-day training course during the year. The first training course should

address diversity awareness, sensitivity, and sexual harassment training. The second course should focus on team building, group dynamics, and conflict resolution training. The third training course, a half-day, should address empowerment and effective communication. Depending on the number of employees and the number of instructors, the organization should try to get all employees trained during Year 5.

6.2.2.3.4. Culture Front. During Year 4, the organization should undertake a relationship with the diverse community through establishing cultural activities and initiatives. The organization should form a relationship with women and minority organizations in the community for mutual gain. This mutual gain can be established by the organization creating awareness and consciousness of its opportunities for women and minorities in the organization, and the community organizations in turn supplying the organization with competent minority and women employees. The organization can also establish the following community relations programs:

- mentor minority and/or female youth;
- adopt a historically Black College and provide it with materials, equipment, and supplies;
- provide summer jobs for minority youth and/or female youth;
- provide college scholarships to minority and/or female youth; and
- adopt several high schools and conduct job fairs at the schools.

These are only some examples of what organizations can do to establish a relationship between the diverse community and itself. However, for more examples of community relation programs refer to the Endeavors that Constitute the Management of Race/Ethnicity and Gender Diversity section of the Results Chapter of this dissertation to get other ideas of what the organizations in this study are doing. The organization can also

benchmark other organizations' community relations efforts to see what they are doing. The benefits of these community relations programs are for organizations to gain access to competent minority and/or women employees.

During Year 5, The organization should implement management accountability and internal readiness. In addressing management accountability, top management makes management (department or division heads) accountable for achieving the organization's diversity goals/ tactical objectives. An example of an organization's diversity goal is all employees should have taken all three training courses by Year 5. This goal and all other diversity management goals are tied to the manager's bonuses and performance appraisal. In order to achieve the organization's diversity goals, managers are going to have to delegate the responsibility of the diversity goals to his/her managers. Therefore, these managers have the responsibility of identifying ways of implementing them to achieve the diversity goals in the department. This may mean changing the interior of the department to make it more receptive to diversity management. This process is called internal readiness.

6.2.2.3.5. Motivation, Rewards, and Recognition Front. In Year 5, top management should begin an effort to reward and recognize employees for participating in diversity awareness and sensitivity training. Employees should be awarded monetary rewards as an incentive to motivate them to continue to support diversity management efforts. However, it is up to the organization to decide if it wants to continue to motivate employees to support diversity management efforts through financial or non-financial means.

6.2.2.4. Obstacles and Key Issues the Organization Will Have to Address in Years 3, 4, and 5

Now that the organization is deeply involved in diversity management, managers have to continue to budget their time so they can maintain their support, participation, and management in the organization's diversity management efforts. Organizations may have to deal with the anxiety of initiating and establishing a relationship with diverse communities. This relationship may be easier to obtain if top management is involved in the initial introduction phase. Also, another key issue the organization may have to address is not having a sufficient number of managers and instructors with level of knowledge 5 to instruct employees in Year 5. If the organization is faced with this problem, it should hire outside consultants to help train its workforce.

A critical issue that needs to be addressed is what if some employees feel they don't want to be involved in the organization's diversity management effort. For example, they don't want to participate in diversity awareness and sensitivity training. They may feel that diversity management is a means of minorities and women receiving advantages in hiring and promotions over them. How does top management drive this fear out?

Top management can drive out this fear with knowledge about the benefits of diversity management to the organization, individuals, and work groups; what it is and what it entails; and the effects that stereotyping and labeling have on individuals. Therefore, top management has an obligation to make sure knowledge about diversity management drives out fear surrounding it. However, what does top management do if all employees aren't trained about diversity management during the end of Year 5? If this happens, those employees who weren't trained during Year 5 should be trained during the first part of Year 6.

6.2.3. Primary Focus in Phase 3, During Years 6 and 7 of SPIPP

6.2.6.1. Continuous Improvement Progress that Will Occur During Years 6 and 7

During Year 6, relative to Deming's cycle for continuous improvement, the organization is still participating in diversity management interventions in various frontal areas to achieve aimed at achieving organizational performance. In Year 6, all employees are taking human relationship and empowerment training courses. Therefore, the organization is studying the results of these diversity management interventions/efforts and others to see if the organizational culture has become reflective of its guiding principles with regards to diversity management. If the organizational culture is still changing to reflect its guiding principles, then diversity management has made a contribution to the management of the culture front which will support the organization's efforts to continuously improve.

In Year 7, with regards to Deming's cycle for continuous improvement based on the organization's success in accomplishing its strategic objectives, the organization will either standardize the change or begin the cycle again with new information. In standardizing the change, top management will continue to use this same change process to keep improving its performance with emphasis on diversity management. However, if the organization is not successful in its continuous performance improvement effort with emphasis on diversity management, it should investigate and document where, how, and why it failed and begin SPIPP again with new information starting during the stage in the process where the efforts began to flounder.

6.2.6.2. Phases of Change the Organization Experience During SPIPP in Years 6 and 7

With regards to Morris's change process, During Year 6, the organization is in phase 6, *trying out the new behavior*. In trying out new behavior, the organization experiments with new diversity management interventions in addition to consistently

modifying, improving, and refining its diversity management efforts. The organization tries out its new behavior by administering a quality of work life (QWL) survey to its employees aimed at addressing management and employee relationships and organizational culture. Top management then compares the responses of this QWL survey to the one administered in Year 3 to see if there is a difference in the way employees responded to the survey in Year 6 compared to Year 3. If there is a positive improvement in the employees responses in Year 6 in comparison to Year 3, then management knows its diversity management efforts have changed its culture to one that values all employees.

In Year 7, the organization is in phase 7, *reinforcing the new behavior*. In reinforcing the new change, the new behavior becomes a part of each individual's and the organization's repertory of behaviors. The new behavior becomes a part of the organization's culture. In keeping in line with the theme of this program, the new behavior supports the organization's efforts to continuously improve its performance.

6.2.3.3. Fronts that are Emphasized to Manage Race/Ethnicity and Gender Diversity

6.2.3.3.1. Planning Front (SPIPP). During Years 6 and 7, the planning team recycles the 7-step planning process with emphasis on steps **2, 3, 4, 5, and 6** (strategic objectives, tactical objectives, implementation planning, implementation management, and performance measurement). The planning team reviews the strategic objectives including the diversity management objectives the organization wanted to accomplish during Year 6 to see if the objectives have been accomplished. If some Year 6 strategic objectives have not been accomplished, the planning and action teams should identify the tactical objectives and the actions that need to be taken to accomplish them and then decide whether it is necessary to accomplish them in order for the organization to achieve its continuous improvement objectives and goals. If it is necessary to accomplish these objectives, then

the teams should then focus on how to implement the tactical objectives and the planning, organizing, executing, measuring, and the evaluating of the implementation of them.

Step 6, performance measurement, should be focused on measuring the strategic objectives including those related to diversity management that should have been accomplished in Year 6. These strategic objectives should be measured to see how well the organization accomplished them. A question that the planning and the design and development teams should ask is did the organization accomplish what it planned to accomplish?

During Year 7, In doing step 7, the planning team focuses on the continuous application of the plan throughout the year to see if it has met and achieved its goal continuous improvement with an emphasis on managing race/ethnicity and gender diversity.

6.2.3.3.2. Culture Front. During Year 6, the organization should address parity for women and minorities in management ranks and succession planning. Parity of women and minorities in the management ranks involves the organization having a similar representation of these groups in management based on the government's census of the national demographics of these groups in management.

In succession planning, the organization should have all department or division heads identify potential minority and women employees for key management positions. The department or division heads are responsible for mapping out a career development plan with the human resource department for these potential individuals. Each year, the plan is evaluated to see if these employees' careers are developed properly and on a timely basis so they will be prepared for the key management positions.

6.2.3.3.3. Education, Training, and Development Front. During Year 6, the organization should include diversity awareness and sensitivity training and sexual harassment training for all vendors, suppliers, and other groups, and individuals who do business with the organization. These groups and individuals should understand that the training is important for them so they will understand that diversity management is a way of doing business for the organization.

6.2.3.3.4. Motivation, Rewards, and Recognition Front. In Years 6 and 7, employees who have displayed exemplary efforts in assisting the organization in its efforts to achieve continuous improvement with emphasis on diversity management, for example instructing training sessions, should receive recognition from top management in the form of a dinner and a plaque. However, it is up to each organization to decide how it wants to recognize and reward its employees for their participation in helping the organization achieve its diversity management goals.

6.2.3.3.5. Communication Front. In Years 6 and 7, the organization's views and policies relating to TQM/CI and race/ethnicity and gender diversity management. The organization's views and policies are communicated in everything it does and is involved in. All vendors, suppliers, and others who do business with the organization are familiar with its diversity policy and guiding principles as they relate to valuing all employees. They know that the organization does not tolerate behavior that is not in aligned with its organizational culture.

6.2.3.4. Obstacles and Key Issues the Organization Will Have to Address

A key issue the organization may face is what if its main suppliers and vendors don't support its diversity management efforts. What does the organization do? Does it get

new vendors and/or suppliers that support its efforts or try to coerce them to support the effort? It is probably best for the organization to get new vendors who agree with its diversity point of views. Another key issue the organization may have to face is a backlash from white males who have supported the diversity management effort in the first few years and, as it began to evolve and become part of the culture and a way of life, now see it as a threat instead of an asset.

How does the organization motivate employees who don't want to participate in diversity management training or its efforts regardless of rewards and recognition stemming from participation? Also how does the organization continue to motivate employees to support this effort over a long-term period of time? The organization should motivate its employees through the use of rewards and recognition. Initiating rewards and recognition on a timely basis will continue to motivate employees to support the organization's continuous improvement effort with emphasis on diversity management.

6.3. Conclusions

Organizations have to plan to manage diversity in the context of large-scale organizational change efforts aimed at improving performance. A planned change of this magnitude and type does not occur overnight. The organization has to take measures to orchestrate this change. A means of doing this is by the organization analyzing and diagnosing its structures and systems to see what changes have to be made within them to make them receptive to large-scale organizational change. A planned change in an organization will result in the new behavior becoming a way of doing business, a means of remaining competitive, and a reflection of the culture. Nutt (1992) states a planned change can produce the following benefits for the organization:

- careful thinking about important problems related to the change;
- clarifying what is feasible;
- setting priorities;
- considering future needs in today's actions;
- providing a basis for decision making;
- controlling what is done during a change;
- offering a means to take the initiative;
- coordination; and
- building both teamwork and an understanding of change making.

I believe using the GSS and SPIPP as a means of designing, developing, and implementing large-scale organizational change that's aimed at improving organizational performance will enable the organization to reap the benefits of planned change that Nutt describes. I believe this program/plan will enable top management to make the necessary decisions and take the appropriate actions to bring about a planned change for incorporating race/ethnicity and gender diversity management as an initiative that supports the management of the culture front as a means of improving organizational performance.

This research has presented information pertaining to the endeavors that constitute diversity management and the resources used to manage the elements that relate to both TQM and diversity management collected from organizations that successfully practice TQM and an organization that is considered one of the best in diversity management. This information was used as diversity management interventions in my program/plan to assist in managing diversity aimed at improving organizational performance.

In Chapter 7, I will evaluate the quality of this research. I will use three tests to do so: construct and external validity and reliability. Through the use of construct validity, I will address if the data I collected for this research answers the research questions. In

using external validity, I will address if the research discoveries are generalizable beyond the immediate case studies. Lastly, based on the reliability of this research, data collection techniques can be repeated with the same results.

CHAPTER 7 EVALUATION OF THIS RESEARCH

The paragraphs that follow address the quality of this research. In Chapter 3, Section 3.2.8., several tests were discussed which were relevant for evaluating the quality of research study. The three I used for this research were construct and external validity and reliability. Construct validity addresses if the data collected by the researcher answers the research questions; therefore, is the researcher measuring what he or she wants to measure? In addressing construct validity, a case study tactic, triangulation, is suggested. Triangulation is the joining or combining of different sources of evidence. I collected data from different sources for this research: key informant and focus group interviews, observations, and document analysis. The primary source of data collection were focus groups and key informant interviews. In the key informant interviews, I interviewed people who had knowledge and information about the phenomena such as the TQM and personnel directors, EEO officers, Diversity directors, etc. In the focus group interviews, I interviewed managers and employees. I asked all key informant interviewees and all focus group participants similar questions.

Maintaining a chain of evidence is a second case study tactic used to address construct validity. Maintaining a chain of evidence allows a reader of the research study to trace the research findings back to the original data collected and vice versa. In order to maintain a chain of evidence, I kept a comprehensive and detailed file on each case study that included correspondence with people at the case sites, notes from phone conversations, notes from site visits, tapes and transcripts from interviews, and organizational documentation. These files enabled me or a reader of this research to work backward from the research findings to the raw data supporting the conclusions.

Key informants review of a draft of the case description is the third case study tactic used to address construct validity. This is done to corroborate and verify the important facts of the case. The accuracy of the case description is enhanced by these reviews which

in turn increases the construct validity of the research. I had at least one person in each site review their organization's case description. Every change requested by the reviewers were adhered to.

External validity is addressed through the use of replication logic in the selection of cases opposed to sampling logic. In case study research, the researcher uses analytical generalization to generalize a specific set of results to some broader theory and statistical generalization of the results. The sampling strategies used to select cases for this research were extreme and deviant sampling (see Chapter 2, Section 3.2.2.). The construct employed for selecting the cases for this research was organizations are considered the best in their practice of either TQM or diversity management either by winning awards for their quality and/or organizational performance efforts or the opinions of experts in the field of diversity management.

Reliability in case study research is addressed through the researcher's ability to demonstrate that data collection techniques can be repeated with the same results. I used case study protocol and developed a case study database as a means documenting the procedures I followed for collecting data for this research. The case study protocol confirms that the same method for data collection is used for all cases. The case study protocol for this research contained observation guide checklist (See Appendix B) and interview guide questions (see Appendix C).

Another form of evaluation of this research is to ask the question, how can this research be used. There are many ways this research can be used:

- Organizations that are not and are practicing TQM and want to manage their race/ethnicity and gender diverse employees in the context of TQM/continuous improvement can use this research as a guideline for doing this. Chapter 6 mapped out a strategic plan organizations can use to manage race/ethnicity and

gender diversity in the context of large-scale organizational change efforts aimed at improving organizational performance.

- Organizations who are attempting to manage race/ethnicity and gender diversity in the context of their TQM efforts can use the results of this research to benchmark what they are doing to manage race/ethnicity and gender diversity against the organizations used in this study.
- Organizations that are interested in the idea of managing race/ethnicity and gender diversity aimed at improving performance but can't get the necessary support from top management to do so can use the review of the body of knowledge on *What is Workforce Diversity, What is Organizational Culture, and the Elements that Relate to both Total Quality Management and the Management of Race/Ethnicity and Gender Diversity* as means of getting ideas to help them support their view of the necessity of managing race/ethnicity and gender diversity.

CHAPTER 8 NEXT STEPS

Presented in this chapter are suggestions for future areas for research related to this topic based on what I learned from doing this research. Given the scope of diversity management and TQM/continuous improvements, there are many possible areas for future research. However, the next steps I've developed are based on my interests regarding both of these phenomena:

1. In order for organizations to know if they are successful in their efforts to manage race/ethnicity and gender diversity, they have to be able to measure their performance in this area as it relates to continuous improvement. Therefore, there is a need for organizations to know how to design and develop a measurement system to inform them of whether the management of race/ethnicity and gender diversity management is helping the organization continuously improve.
2. A research study can be done of organizations that have used the practice of diversity management as a means to continuously improve organizational performance to see if the organization can accomplish its diversity management goals through Deming's Cycle for continuous improvement (plan, do, study, and act (standardize the change)) or does the organization have to re-engineer (begin cycle with new information) to accomplish its goal at the end of the study/act phase.
3. A possible research study would be to research the effectiveness of different mechanisms the organization uses to share information about its diversity management and TQM efforts in order to assist in the change of its culture to a pluralistic continuous improvement one. Examine whether face-to-face

communication in meetings with top management or the leader of the organization is more, less, or is equal in effectiveness to departmental meetings, memos, newsletters and newspapers, information boards, and other mechanisms the organization uses to share information.

4. Cognitive style and personality type are important dimensions in determining how people get along with each other in the work environment. The management of these dimensions of diversity management are important to an organization's practice of TQM in that TQM requires people to work together in teams to improve processes, solve problems, and make decisions. People need to be aware of their personality types so they can modify their behaviors in order to get along with their team members and they need to understand their cognitive styles, the way they process information, so they can make effective contributions to the team's tasks. Therefore, research needs to be done to study the relationship between personality type and team member relationships and cognitive style and individual contribution to tasks. Also, research needs to be done to measure the effect of personality type and cognitive style on team completion of task assignments. The scope of these research areas may be out of the field of industrial engineering, but they are vital to the understanding of personality type and cognitive style phenomena on team performance in the TQM environment.

Many of the future research areas related to diversity management may be out of the scope of industrial engineering research. However, I plan to continue to research this area in the future as it relates to large-scale organizational change and continuous improvement.

CHAPTER 9 LESSONS LEARNED

This chapter will present advice or lessons learned from conducting this research to new Management Systems Engineering graduate students (MgtSE) and those MgtSE graduate students who have not begun their research effort.

First of all, if you have not begun the research process by the end of your first semester as a graduate student you are already behind. The first lesson I learned was that if I had begun the research process, writing position papers about possible research topics, during the first semester/year of graduate school, it would not have taken me so long to complete my degree. Please do not procrastinate when it comes to deciding on a research topic during the first semester of graduate school. This lesson has to be the most valuable of all of the other lessons I learned.

Before re-inventing the wheel on lessons learned, I read what other students in the MgtSE option wrote about lessons learned during the research process and I decided not to repeat what others had said, but rather address new issues/lessons that had not been discussed by students in the past. Additional lessons learned were:

- This statement has been mentioned previously by other students, but is important enough to repeat. Spend time doing something for your research every day. There will be days when you will not be able to work on your research; therefore, if you work on it on a consistent basis, you will not get behind schedule when you have days you are brain dead or have other obligations and commitments. When you don't work on your research on a consistent basis, it becomes difficult to get back into it and you fall behind schedule.

- Set aside four to five hours a day to work on your research. If you set aside four to five hours to work on your research each day, even when you are having a brainless day and not very productive, you will get something accomplished. If you don't set aside time to work on your research each day, you will not find available time in your day to do so. Also, if you don't set aside a large chunk of time to work on your research each day, on days when you are not very productive, you won't get anything accomplished toward your research because you won't have enough time to give yourself a chance to be productive. I've had days when I was very slow mentally in getting started on working on my research. However, if I had not had time to think and ponder ideas, I would not have accomplished anything on those days.
- Attend conferences relating to your research area. I attended an Academy of Management Conference on diversity. I gathered a wealth of information about this topic plus met individuals who are considered very knowledgeable on the topic. Through making these contacts, I was able to confer with these individuals when I needed additional information or clarification on information pertaining to diversity management.
- Do not come to graduate school with the expectations it will take you a certain amount of time to complete the research and degree process. I came to graduate school with the intentions of completing the MgtSE option program in three years. I had given my husband false expectations as well as myself. Therefore, when the research process started to take longer than I expected, I was disappointed and so was my husband. Graduate students should come to graduate school with a time frame set for degree completion and also with the frame of mind that anything can happen to delay one's completion such as not starting the research process soon enough, so be flexible in your expectations

for degree completion. By being flexible in your expectation for degree completion, you will eliminate the trauma of going through emotional let downs when you cannot achieve the milestones and goals you set for research and degree completion.

- Do not accept a job before completing your thesis or dissertation. I had accepted a job before completing my dissertation without realizing that I would not have the time once I left graduate school to work on it. Of course others had told me in the past that if I leave graduate school without completing my dissertation, odds are I wouldn't complete it. Of course, I thought I could be the exception to this rule; however, I had wise committee members who convinced me that I couldn't complete my research while working. You may not be as fortunate to have committee members who are concerned about you not leaving graduate school before completing your research, so be wise and don't leave graduate school before completing your research.

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APPENDICES

APPENDIX A BACKGROUND ON RESEARCH

In Sections 1.1. through 1.4. in this Appendix, I will present an overview of what different authors say about research, ranging from what it is and is not to the different types of research methods and strategies. In Section 1.5. of this chapter, I will exhibit my point of view or paradigm about research based on what others say about it and my own intuition. In this section, I will talk about the type of research I'm doing for this dissertation ranging from the inquiry paradigm I used to the use of multiple case studies.

1.1. What Research Is and Is Not

Before addressing what research is, it's appropriate to address what research is not in order to clear up some misconceptions about research. Research is not mere information gathering, the transportation of facts from one location to another, rummaging for information, or a catchword used to get attention (Leedy, 1989).

On the other hand, Michael (1989) defines research as a "process of inquiry in which the researcher carefully poses a question and proceeds systematically to gather, analyze, interpret, and communicate the information necessary to answer the question." However, Leedy (1989) states "research is a procedure by which we attempt to find systematically, and with the support of demonstrable fact, the answer to a question or the resolution of a problem."

Leedy (1989) further states that the research procedure exhibits the following seven characteristics:

1. Research originates with a question in the mind of the researcher.
2. Research cannot proceed without a clear articulation of a goal.
3. Research requires a specific plan of procedure.
4. Research usually divides the principal problem into more manageable subproblems.
5. Research seeks direction through appropriate hypotheses based upon obvious assumptions.
6. Research deals with facts and their meaning.
7. Research is circular.

Figure 1.1. describes what is meant by research being cyclical. Research is inconclusive, since exploring one element of research may lead to additional questions or problems that may need resolution.

1.1.1. Ways to Discover Knowledge

There are two ways to discover knowledge; it can be discovered by deductive logic or by inductive logic, the scientific method (Leedy, 1989). In deductive logic or reasoning, you begin with a preconceived idea and then collect data to test the accuracy of the idea, theory, or hypothesis. However, inductive logic or reasoning, or the scientific method, begins with an observation. Good scientific research is a blend of both deductive and inductive logic. Light, Singer, and Willett (1990) conclude that "induction helps us generalize and build theories, which in turn generates new hypotheses for future deductive research."

The researcher's research question determines whether the research is inductive or deductive. Figure 1.2. displays the Wallace wheel which illustrates both types of reasoning processes. If the researcher is testing theories, deductive logic, the research will focus on

the processes on the right side of the wheel. However, if the researcher is developing theories, the research will focus on the processes on the left side of the wheel.

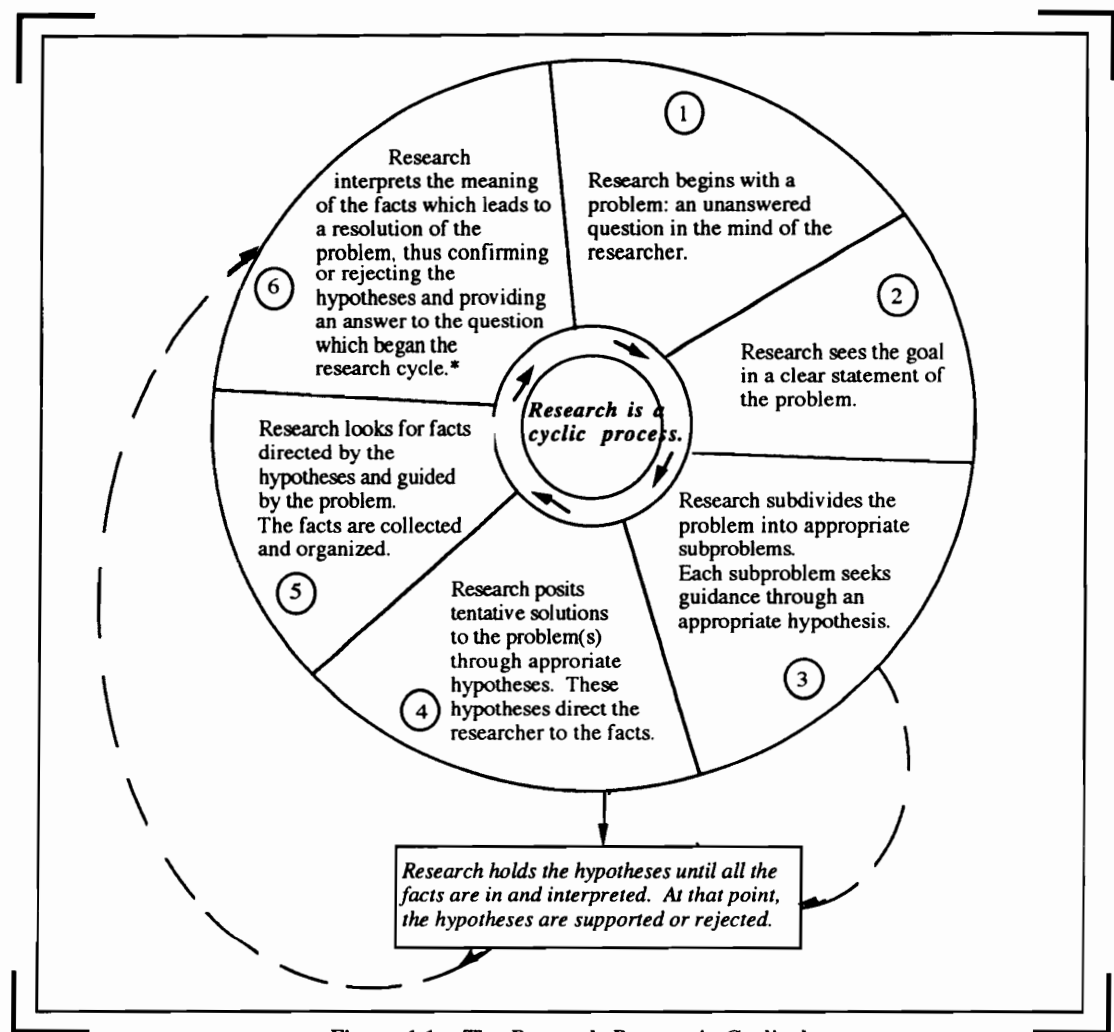


Figure 1.1. The Research Process is Cyclical (Leedy, 1989)

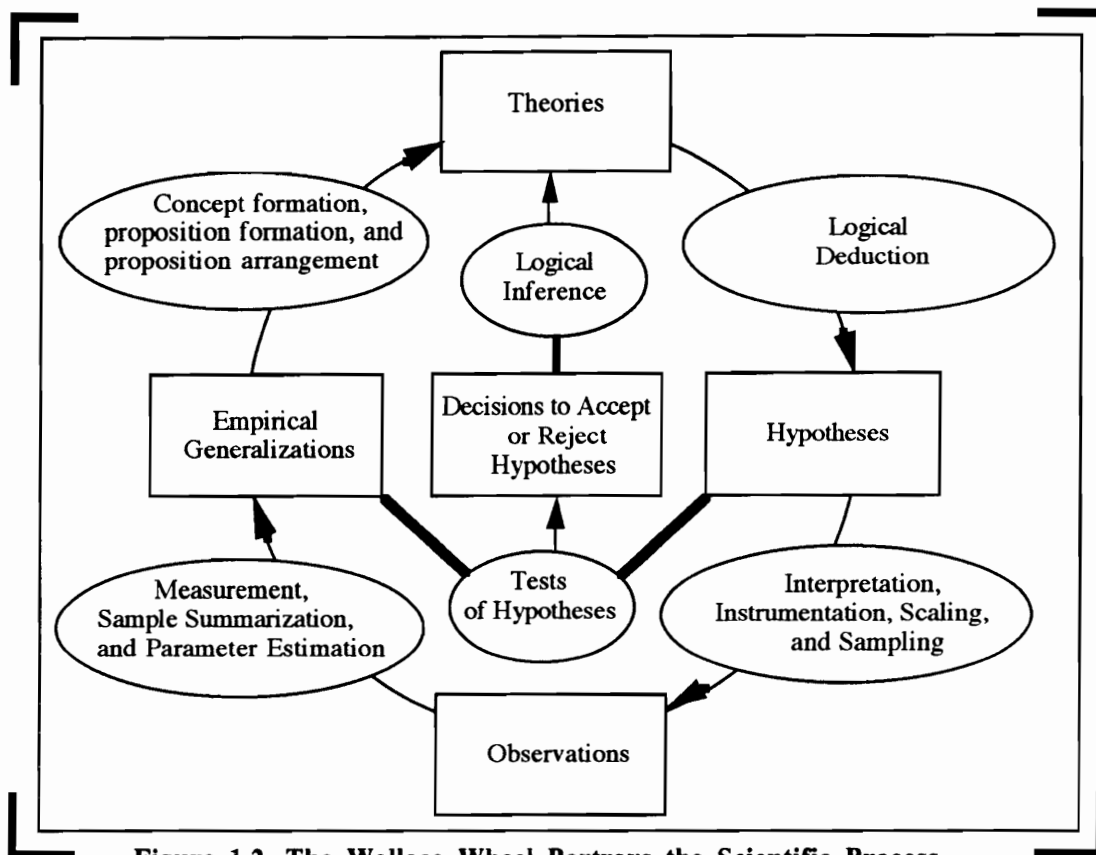


Figure 1.2. The Wallace Wheel Portrays the Scientific Process (Wallace, 1971)

1.1.2. Methods Used to Test the Truth

There are four methods used in research to generate, or test the truth of, empirical statements: authoritarian, mystical, logico-rational, and scientific (Wallace, 1971). Leedy states the distinction between the methods:

In the authoritarian mode, knowledge is sought and tested by referring to those who are socially defined as qualified producers of knowledge. The mystic mode relies on the personal state of grace of the knowledge producer. In the logico-rational mode, judgment of knowledge relies on the method by which the logic was obtained, which depends on how well the logic comply to the rules for formal logic. The scientific method places little emphasis on the producer of the knowledge; but, relies on the observational effects of the knowledge in question and secondary emphasis on the method used to generate the knowledge.

For my dissertation, I will be using the scientific method to generate and test the truth of empirical statements. The scientific method de-emphasizes the individual's standpoint by substituting rules whereby agreement about specific images of the world and knowledge is reached (Wallace, 1971).

1.1.3. The Domains of Research

Brinberg and McGrath (1989) describe research as having three domains which involve a content of interest, ideas that give meaning to the content, and techniques and procedures by which those ideas and content can be studied. These three domains are the substantive, conceptual, and methodological domains. The substantive domain exhibits the phenomena, processes, or focal problems of interest. The conceptual domain exemplifies ideas, concepts, their relations, and the philosophical assumptions underlying them. The methodological domain encases the methods, designs, and research strategies used to examine concepts and phenomena. Research is the study of relations between units or elements that are proper parts of some surrounding context or embedded systems (Brinberg and McGrath, 1989).

1.1.4. The Stages of Research

Brinberg and McGrath (1989) further state that research can be divided into three stages. The first stage, the prestudy stage, involves generation, identification, development, and clarification of concepts, methods, and substantive phenomena. The second stage, the central stage, is performing the study which involves combining content, ideas, and techniques to arrive at some findings. The third stage, the follow-up stage, involves exploring the scope and findings generated from stage two, the central stage.

1.1.5. Approaches to Research

Brinberg and McGrath (1989) suggest there are three approaches or methods you can take in stage two, performing a study. These three study paths are the experimental, theoretical, and empirical paths. In the experimental path, the researcher combines the elements and relations selected from the conceptual and methodological domain to form a study design and then implements that design by selecting phenomena and patterns among phenomena from the substantive domain. The theoretical path involves the researcher combining the elements and relations selected from the conceptual and substantive domains to form a set of hypotheses and then testing those hypotheses by applying measures and comparison techniques selected from the methodological domain.

Lastly, the empirical path involves the researcher first combining the elements and relations selected from the methodological and substantive domain to form a set of observations and then attempting to explain those observations by selecting a set of concepts from the conceptual domain. Table 1.1. depicts the selection, combination and use of elements and relations from all three domains in the production of a set of empirical findings. Figure 1.3. displays the relations among the three domains, levels within the three domains, and the stages of the research process.

1.1.6. Phases of Research

In performing research, the researcher has to make a number of decisions about how to develop the research. The development of research goes through different phases. Michael (1989) states that "as the research questions become more complex and precise, the activities in each phase of research must become correspondingly more demanding, precise, and controlled." The seven phases of research are: idea generation, problem definition, procedures design, observation, data analysis, interpretation, and communication.

Table 1.1. The Selection, Combination, and use of Elements and Relations from all Three Domains in the Production Of Empirical Findings (Brinberg and McGrath, 1989)

<i>Paths</i>	<i>Step 2</i>	<i>Step 3</i>	<i>Product</i>
Experimental (Ex)	Study design	Implementation	A set of empirical findings
Theoretical (Th)	Set of hypotheses	Test of hypotheses	
Empirical (Em)	Set of observations	Interpretation	

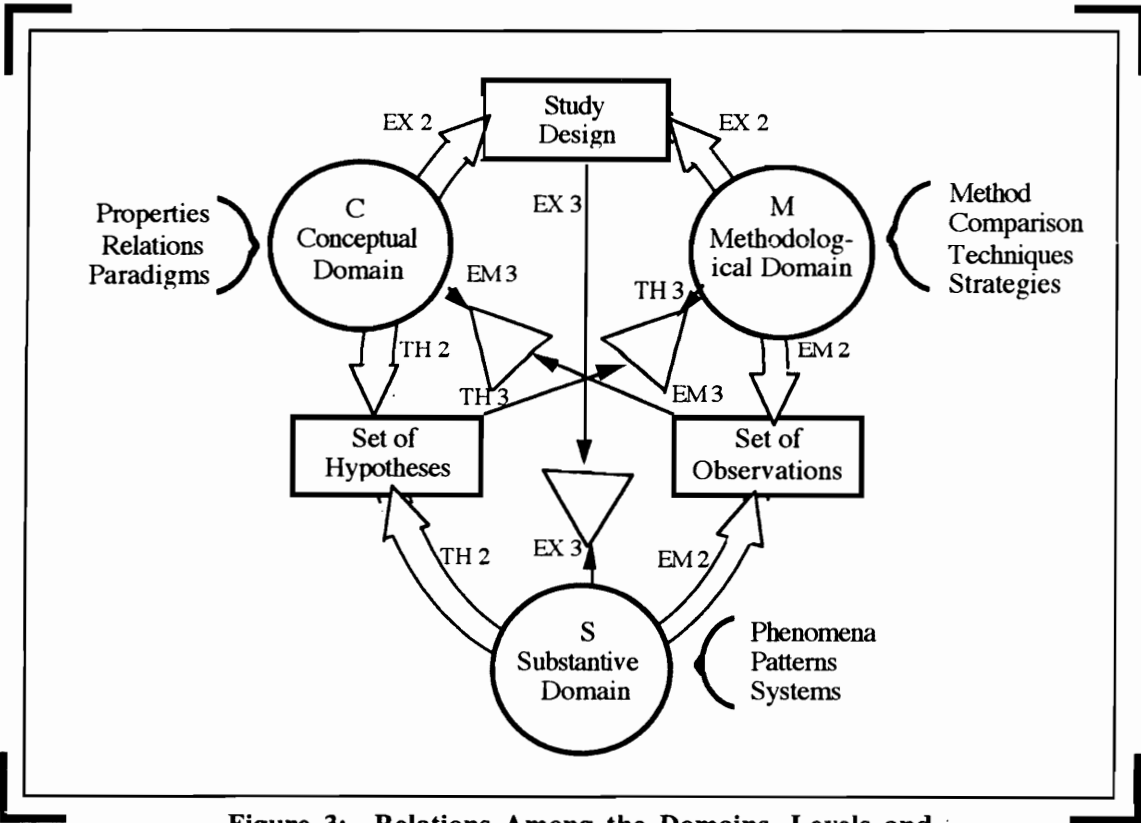


Figure 3: Relations Among the Domains, Levels and (Brinberg and McGrath, 1989)

However, when the researcher increases control over the conditions and methods of the research, the researcher is imposing constraints on his or her freedom to be flexible. Michael (1989) suggests that levels of constraint is the degree to which the researcher imposes limits or controls on some part of the research process. The concepts of phases of research and levels of constraint, when combined, form a two-dimensional descriptive model of research which is shown in Figure 1.4. The two-dimensional model of research is an attempt to help the researcher organize knowledge about research. Table 1.2. depicts the level of constraints of scientific research. The levels of constraint range from low to high.

1.2. Uses for Validity and Reliability in Research

Validity and reliability have many meanings in research. In addressing measurement as a tool of research, validity is concerned with the soundness and the effectiveness of the measuring instrument, and reliability addresses the accuracy of the instrument used in making the measurement (Leedy, 1989). The following are the most common types of validity (Leedy, 1989):

1. *Face validity*: This type of validity relies basically upon the subjective judgment of the researcher. It asks two questions which the researcher must answer in accordance with his or her best judgment: (1) Is the instrument measuring what it is supposed to measure? (2) Is the sample being measured adequate to be representative of the behavior or trait being measured;

	Phases of Research						
	(1) Idea- generating	(2) Problem- solving	(3) Procedures design	(4) Obser- vation	(5) Data analysis	(6) Interpre- tation	(7) Communi- cation
Levels of Constraint							
Naturalistic observation							
Case-study method							
Correlational research							
Differential research							
Experimental research							

**Figure 1.4. A Two-Dimensional Model of Scientific Research
(Michael, 1989)**

**Table 1.2. Levels of Constraint of Scientific Research
(Michael, 1989)**

Naturalistic observation: This involves the observation of subjects in their natural environment. The researcher should do nothing to limit or change the environment or the behavior of subjects.

Case-study method of observation: This involves moving the subject into a moderately limiting environment, intervening to a slight degree, and observing the subject's responses.

Correlational research: Here the focus is on quantifying the degree of relationship between two variables. The measurement procedures must be carefully defined and precisely followed.

Differential research: Here two or more preexisting groups of subjects are compared. The setting is usually highly constrained, and the measurement procedures must be carefully defined and precisely followed.

Experimental research: Identical to differential research except that the subjects are randomly or in some other way assigned without bias to the various groups or conditions in the study. This is the highest constraint level of research.

2. *Criterion validity*: Criterion validity usually employs two measures of validity; the second, as a criterion, checks against the accuracy of the first measure. The essential component in criterion validity is a reliable and valid criterion, a standard against which to measure the results of the instrument doing the measurement;
3. *Content validity*: This type of validity is sometimes equated with face validity. Content validity is the accuracy with which an instrument measures the factors or situations under study;
4. *Construct validity*: A construct is any concept, such as honesty, that cannot be directly observed or isolated. Construct validation is interested in the degree to which the construct itself is actually measured;
5. *Internal validity*: It is the freedom from bias in forming conclusions in view of data. It seeks to ascertain that the changes in the dependent variable are the result of the influence of the independent variable rather than the manner in which the research was designed; and
6. *External validity*: This type of validity is concerned with the generalizability of the conclusions reached through observation of a sample to the universe.

Leedy (1989) defines measurement as the quantifying of any phenomenon, substantial or insubstantial, concrete or abstract, and involves the comparison of the data being measured to a publishable standard. Therefore, the instruments used in measuring data must possess both validity and reliability.

1.3. Differences Between Qualitative and Quantitative Research Methods

There are two types of methods for doing research, qualitative and quantitative. Both methods have strengths and weaknesses, so choosing the best method depends on the

type of data being collected and strategies being used in the research. Evaluators are able to use qualitative methods to study selected issues and topics in depth and detail. Qualitative methods allow the researcher to approach fieldwork without limitations to preselected categories of analysis which contribute to the openness, depth, and detail of qualitative inquiry. Therefore, the qualitative methods employed will represent a mixture of the rational, serendipitous, and intuitiveness in which the personal experiences of the organizational researcher are often key events to be understood and analyzed as data (Van Maanen, 1979). Patton (1990) states that "qualitative methods typically produce a wealth of detailed information about a much smaller number of people and cases." Even though this broadens the understanding of the cases and circumstances studied, it diminishes generalizability. Evaluators are able to use qualitative methods to study selected issues and topics in depth and detail. Also, in qualitative research, "the researcher is the instrument and validity hinges to a great extent on the skill, competence, and rigor of the person doing fieldwork" (Patton, 1990).

In contrast, quantitative methods require the use of standardized measures so that the different perspectives and experiences of people can be applied into a restricted amount of predetermined categories to which numbers are relegated. Patton (1990) says the advantage of the quantitative approach is that it's possible to measure the reactions of a great number of people to a limited set of questions, thus facilitating comparison and statistical aggregation of the data. Therefore, this produces a generalizable set of findings or data. Moreover, validity in quantitative research depends on thorough construction of the instrument to ensure that it measures what it is intended to measure. Prescribed procedures are necessary for administering the instrument. Patton (1990) explains that the focal point is on the measurement instrument, test items, survey questions, or other measurement tools. However, both quantitative and qualitative data can be collected in the same study.

1.3.1. Differences Between Quantitative and Qualitative Sampling Strategies

The difference between quantitative and qualitative sampling methods is: quantitative methods are generally selected randomly from large sample sizes and qualitative methods are centered around small sample sizes selected purposefully. The differences between sampling strategies depend on the purpose or logic of each strategy. For example, probability sampling depends on choosing a random and statistically representative sample that will allow a positive generalization from the sample to the larger population; whereas, purposeful sampling resides in choosing information rich cases for study in depth. Patton (1990) describes information rich cases as those from which one can learn a great deal about issues of central importance to the purpose of the research, thus the term "purposeful sampling." The use of purposeful sampling depends on the rationale and purpose of the research.

1.4. Different Types of Research Methods

Brinberg and McGrath (1985) define methods or modes of treatments as techniques used for measuring, manipulating, or controlling properties of the phenomena. In other words, the research method is a systematic way of collecting and analyzing data. Kerlinger (1986) classifies research into four types or methods. MSL (1991) describes Kerlinger's four types as follows:

1. *Experiments*- The researcher tests hypotheses by deliberately manipulating conditions and measuring responses with the intention of demonstrating the relationship of one variable with another. Using control groups and selecting subjects randomly are two illustrations of measures used to limit extraneous variance.

2. *Field Experiments or Quasi-Experiments*- The researcher tests hypotheses in the same manner that is used in experiments, but in real-world settings. Full control of experimental conditions are not likely; therefore, environmental variables can't always be considered and they may influence the experiment.
3. *Field Studies*- Field studies occur in the real world and are inductive. The researcher does not try to manipulate the conditions, since the focus is on recording and capturing the phenomenon under investigation in its complexity. Qualitative methods such as observations or in-depth interviewing, are typically associated with field studies.
4. *Survey Research*- The researcher conducts surveys to determine the incidence, distribution, and interrelations among variables. Survey research typically focuses on people and their vital facts, beliefs, attitudes, opinions, behaviors, and motivations.

Of course, this list may not be all inclusive. Different experts on research classify other types of research. For example, Leedy (1989) states there are four kinds of research methods: historical, descriptive survey, analytical survey, and experimental. Table 1.3. lists other methodological categories most commonly used in research. Leedy (1989) defines methodology as "merely an operational framework within which the facts are placed so that their meaning may be seen more clearly." There are two categories of data: written and observation. However, Leedy (1989) states that there are four subcategories of data that help determine the methodology the researcher should use. Leedy (1989) describes these four data subcategories as follows:

Table 1.3. Research Methods (to be continued on next page)
(Leedy, 1989)

<i>Method</i>	<i>Characteristics of the Method and the Research Goals</i>
Action Research	The approach in action research is to do something to see if it works. Will playing video games improve eye-hand coordination in typing? Method: Get a bank of computers, a group of typists; set up a training session. See if typing skills improve.
Case and Field Study Research	A type of descriptive research in which data is directly gathered from individuals (individual cases) or social or community groups in their natural environment for the purpose of studying interactions, attitudes, or characteristics of individuals or groups. A case study is "an empirical inquiry that investigates a contemporary phenomenon within its real-life context, when the boundaries between phenomenon and context are not clearly evident and in which multiple sources of evidence are used" (Yin, 1989). A case study is a research strategy which focuses on understanding the dynamics present within single settings (Eisenhardt, 1989).
Descriptive (or Normative) Survey	The descriptive survey method, also called the normative survey method, is employed to process the data that come to the researcher through observation. This method looks with intense accuracy at the phenomena of the moment and then describes precisely what the researcher sees.
Developmental	This type of research is an observational-descriptive genre of investigation that usually stretches over a period of time and is frequently called "the longitudinal study." Trend studies and projections of future trends are sometimes considered as developmental research projects.

**Table 1.3. Research Methods (continued from previous page)
(Leedy, 1989)**

<i>Method</i>	<i>Characteristics of the Method and the Research Goals</i>
Historical	The historical method attempts to solve certain problems arising out of a historical context through a gathering and examination of relevant data.
Experimental Method	The experimental method attempts to control the entire research situation, except for certain input variables which then become suspect as the cause of whatever change has taken place within the investigative design.
<i>True Experimental Method</i>	The true experiment evinces a greater degree of control and refinement and a greater insurance of both internal and external validity.
<i>Quasi-Experimental Method</i>	Quasi-experimental designs are used in situations where random selection and assignment are not possible. The researcher must be aware of the specific variables the design fails to control and take these into account in the interpretation of data.
<i>Ex Post Facto</i>	This method observes existing conditions and searches back through the data for plausible causal factors. It is the "detective method" in which the situation of the crime is discovered and then the search for the cause or motivation for the crime is sought.

1. Written records and accounts of past happenings and events (commonly called historical data); literary productions (commonly known as literary or critical data).
2. Observations for whose transmission description is the best vehicle. These are observations that a researcher makes directly at the scene of occurrence and then relays as facts (commonly called normative survey or descriptive survey data).

3. Observations that are quantified and exist in the form of numerical concepts.

These data are expressed in the language of mathematics and must, consequently, be evaluated and interpreted by means of appropriate mathematical or statistical procedures. (Such data are commonly call analytical survey or statistical data).

4. Observations of certain differences and likenesses that arise from comparison or contrast of one set of observations with another set of similar observations.

Generally, these two sets of data have been derived from observations under differing conditions or effected at subsequent time modules. (These data are usually referred to as experimental data.)

These four subcategories of data use one of the four different research methods mentioned earlier. An important rule to remember for the selection of research methodology is that the data determines the type of methodology. Merriam-Webster (1989) defines data as factual information used as a basis for reasoning, discussion, or calculations. Leedy (1989) defines data as "those facts that any particular situation affords or gives information, impressions, or other factual data to an observer."

1.5. Purposes of Research

Research is a continuum that ranges from very basic, long-term research directed at theory development and knowledge to highly action-oriented research aimed at solving immediate problems in a short period of time. Therefore, research's regulating force is its purpose. The initial step in the research process is the clarification of the research purpose. From the research purpose flows decisions about design, analysis, measurement, and reporting. Patton (1990) states there are five types of research and purposes:

1. *Basic research* to contribute to fundamental knowledge and theory;
2. *Applied research* to illuminate a societal concern;
3. *Summative evaluation* to determine program effectiveness;
4. *Formative evaluation* to improve a program; and
5. *Action research* to solve a specific problem.

Determining the purpose of the research assists the researcher in making research methodology decisions. Patton (1990) stresses the importance of researchers understanding the variations in purpose along the continuum leading to different ways of conceptualizing problems, different designs, different types of data gathering, and different ways of publicizing and disseminating findings. Table 1.4. summarizes the differences among the different types of research and purposes.

1.6. Strategies of Research

Yin (1989) states that there are five types of research strategies: experiments, surveys, histories, archival analysis, and case studies. However, Brinberg and McGrath identify eight research strategies: field studies, field experiments, experimental simulations, laboratory experiments, judgment studies, sample surveys, formal theories, and computer simulations. Brinberg and McGrath (1989) define research strategies as "the settings within which research is performed." Whereas, Marshall and Rossman (1989) define strategy as a "road map, an overall plan for engaging the phenomenon of interest in systematic inquiry." Research strategies are a part of the research method, and both are included in the research methodology. There are three conditions a researcher must explore before determining the appropriate research strategy. Yin (1989) states these three conditions as the type of research question, the control an investigator has over the actual behavior of events, and the focus on contemporary as opposed to historical phenomena.

**Table 1.4. A Typology of Research Purposes
(Patton, 1990)**

<i>Types of Research</i>	<i>Purpose</i>	<i>Focus of Research</i>	<i>Desired Results</i>	<i>Desired Level of Generalization</i>	<i>Key Assumptions</i>
Basic Research	Knowledge as an end in itself; discover truth.	Questions deemed important by one's discipline or personal intellectual interest.	Contribution to theory.	Across time and space (ideal).	The world is patterned; those patterns are knowable and explainable.
Applied Research	Understand the nature and sources of human and societal problems.	Questions deemed important by society.	Contributions to theories used to formulate problem-solving programs and interventions.	Within as general a time and space as possible, but clearly limited application context.	Human and societal problems can be understood and solved with knowledge.
Summative Evaluation	Determine effectiveness of human interventions and actions (programs, policies, personnel, products).	Goals of the intervention.	Judgments and generalizations about effective types of interventions and the conditions under which those efforts are effective.	All interventions with similar goals.	What works one place under specified conditions should work elsewhere.
Formative Evaluation	Improving an intervention: a program, policy, organization, or product.	Strengths and weaknesses of the specific program, policy, product, or personnel being studied.	Recommendations for improvements.	Limited to specific setting studied.	People can and will use information to improve what they're doing.
Action Research	Solve problems in a program, organization, or community.	Organization and community problems.	Immediate action; solving problems as quickly as possible.	Here and now.	People in a setting can solve problems by studying themselves.

Table 1.5. addresses the research strategy and how it relates to the research question, the control over behavioral events, and the focus on contemporary or historical events.

**Table 1.5. Relevant Situations for Different Research Methods
(Yin, 1989)**

Strategy	Form of Research Question	Requires Control over Behavioral Events?	Focuses on Contemporary Events?
Experiment	how, why	yes	yes
Survey	who, what, where, how many, how much	no	yes
Archival Analysis	who, what, where, how many, how much	no	yes/no
History	how, why	no	no
Case study	how, why	no	yes

Moreover, before determining the research strategy to be used, the researcher has to look at the research question and determine the nature of the research. That is, from the research question, does the nature of the research appear to be exploratory, explanatory, descriptive, or predictive? Therefore, research can be used to explore a phenomenon, explain the relationship between the phenomenon's variables and constructs, document the phenomenon through description, or predict the outcome of the phenomenon. The nature of the research describes the goal or purpose of the research. For example, is the goal of the research to predict certain outcomes? In that case the goal, or nature of the research, is predictive. Table 1.6. displays the relationship between the goal of the research, the research question, and research strategy. Several different types of research questions can be addressed on a study. Therefore, research can have a combination of goals.

**Table 1.6. Matching Research Questions with Strategy
(Marshall and Rossman, 1989)**

Purpose of the Study	Research Question	Research Strategy	Examples of Data Collection Techniques
EXPLORATORY to investigate little understood phenomena to identify/discover important variables to generate hypotheses for further research	What is happening in this social program? What are the salient themes, patterns, categories in participants' meaning structures? How are these patterns linked with one another?	case study field study	participant observation in-depth interviewing elite interviewing
EXPLANATORY to explain the forces causing the phenomenon in question to identify plausible causal networks shaping the phenomenon	What events, beliefs, attitudes, policies are shaping this phenomenon? How do these forces interact to result in the phenomenon?	multisite case study history field study ethnography	participant observation in-depth interviewing survey questionnaire document analysis
DESCRIPTIVE to document the phenomenon of interest	What are the salient behaviors, events, beliefs, attitudes, structures, processes occurring in this phenomenon?	field study case study ethnography	participant observation in-depth interviewing document analysis unobtrusive measures survey questionnaire
PREDICTIVE to predict the outcomes of the phenomenon to forecast the events and behaviors resulting from the phenomenon	What will occur as a result of this phenomenon? Who will be affected? In what ways?	experiment quasi-experiment	survey questionnaire (large sample) kinesics/proxemics content analysis

1.7. Inquiry Paradigms and Qualitative Inquiry

There has been long-standing debate about the best way to conduct research. The two competing paradigms that center around the debate are: logical-positivism, which uses quantitative and experimental methods to test hypothetical-deductive generalizations, versus phenomenological inquiry, using naturalistic approaches to inductively and holistically understand human experience in context-specific settings (Patton, 1990). Paradigms are world views on ways of breaking down the intricacies of the world. Patton (1990) states that the understanding of alternative research paradigms helps sensitize researchers and evaluators to the ways in which their methodological prejudices, derived from their disciplinary socialization experiences, may reduce their methodology flexibility and adaptability.

Strategy that focuses on interconnected themes are the emphasis of qualitative inquiry. Table 1.7. presents a summary of the themes of qualitative inquiry. The researcher does not attempt to manipulate the research which makes qualitative inquiry naturalistic. Patton (1990) states that the main point of using qualitative methods is to understand naturally occurring phenomena. Whereas, in experimental research, the researcher tries to gain complete control of the conditions of the research by manipulating, changing or holding constant external influences and in which a very limited set of outcome variables are measured (Patton, 1990). The determining of using qualitative inquiry or the experimental approach is a design issue.

**Table 1.7: Themes of Qualitative Inquiry
(Patton, 1990)**

1. Naturalistic inquiry	Studying real-world situations as they unfold naturally; non-manipulative, unobtrusive, and non-controlling; openness to whatever emerges--lack of predetermined constraints on outcomes.
2. Inductive analysis	Immersion in the details and specifics of the data to discover important categories, dimensions, and interrelationships; begin by exploring genuinely open questions rather than testing theoretically derived (deductive) hypotheses.
3. Holistic perspective	The <i>whole</i> phenomenon under study is understood as a complex system that is more than the sum of its parts; focus on complex interdependencies not meaningfully reduced to a few discrete variables and linear, cause-effect relationships.
4. Qualitative data	Detailed, thick description; inquiry in depth; direct quotations capturing people's personal perspectives and experiences.
5. Personal contact and insight	The researcher has direct contact with and gets close to the people, situation, and phenomenon under study; researcher's personal experiences and insights are an important part of the inquiry and critical to understanding the phenomenon.
6. Dynamic systems	Attention to process; assumes change is constant and ongoing whether the focus is on an individual or an entire culture.
7. Unique case orientation	Assumes each case is special and unique; the first level of inquiry is being true to, respecting, and capturing the details of the individual cases being studied; cross-case analysis follows from and depends on the quality of individual case studies.
8. Content sensitivity	Places findings in a social, historical, and temporal context; dubious of the possibility or meaningfulness of generalizations across time and space.
9. Empathic neutrality	Complete objectivity is impossible; pure subjectivity undermines credibility; the researcher's passion is understanding the world in all its complexity--not proving something, not advocating, not advancing personal agendas, but understanding; the researcher includes personal experience and empathic insight as part of the relevant data, while taking a neutral non judgmental stance toward whatever content may emerge.
10. Design flexibility	Open to adapting inquiry as understanding deepens and/or situations change; avoids getting locked into rigid designs that eliminate responsiveness; pursues new paths of discovery as they emerge.

1.6. Conclusions

In conclusion, my definition of research is a combination of Leedy's and Michael's definitions (Section 1.1.). Therefore, research is a process of inquiry in which the researcher poses a question and then systematically creates new knowledge to answer the question through gathering, analyzing, interpreting, and communicating information. Research is also the scholarly, integrated creative extension of an existing body of knowledge. There are different types of research which require different methodologies or techniques for doing research. For this dissertation, the type of research I did was formative evaluation and my purpose for doing it was to improve the management of race/ethnicity and gender diversity organizations practicing TQM. Moreover, I employed qualitative research methods to guide me in collecting, analyzing, and interpreting data to answer my research questions.

APPENDIX B OBSERVATION GUIDE

An observation guide checklist was used during the observation of quality team meetings at each of the four sites used in the research. The purpose of this guide was to check off what was seen during observations. Questions on the checklist pertain to how team members interacted and worked together, dealt with conflict, communicated, shared information and knowledge, and participated in the meeting. The questions on the checklist are:

1. Does everyone participate equally?
 - No one person monopolizes the meeting.
2. If a person does not participate, does leader encourage that person to participate?
 - The facilitator initiates input from those team members who haven't actively participated by asking them opinions on issues.
3. Is there cooperation, coordination, and cohesiveness among members?
 - Group members work together to solve problems and make decisions.
4. Does everyone share in the problem solving and decision making process?
 - Before solving a problem or making a decision, the facilitator asks everyone his or her opinion.
5. Is there communication between team members?
 - Team members openly address issues and concerns during the team meeting.

6. Does the group handle conflict well (if it exists)?
 - Conflict and dissension are discussed openly among group members.
7. Is information and knowledge shared?
 - Group members talk about information gathered and learned about issues pertinent to the team.
8. Are group members allowed to make suggestions?
 - Facilitator openly asks group members for suggestions to help resolve issues and solve problems.
9. Is everyone treated with respect?
 - Group members are cordial, friendly, and polite with each other.
10. Is everyone's opinion valued?
 - Group members willingly listen to everyone's opinion without negative criticism.
11. Does there seem to be trust among members?
 - Group members feel secure enough to say they are divulging confidential information and know that what is said will remain in the room and will not be discussed outside of the meeting.

12. Is there an environment where no one has an advantage?

- Everyone is addressed on a first name basis, and everyone is given an opportunity to actively participate in the meetings.

13. Is there an atmosphere where an employee can disagree without retaliation?

- Employees openly disagree and voice their views

APPENDIX C INTERVIEW GUIDES

Interview guides were designed and used for each interview session. The purpose of the guides was to make sure that the same information was obtained from a number of people by covering the same material. Separate interview guides were used for key informant and focus group interviews. Patton (1990) states that the advantage of the interview guide is to make sure that the interviewee has carefully decided how to best use the limited time available in an interview situation. The interview guides are:

Key Informant Interview Guide

1. Talk about TQM and the management of race/ethnicity and gender diversity in your organization.
2. How do you perceive the relationship between diversity, race/ethnicity and gender diversity management, and the practice of TQM in your organization?
 - a. Do you treat them as interdependent or independent initiatives? Why?
3. How do the initiatives, programs, or policies you have in place assist you in your race/ethnicity and gender diversity management efforts (This includes education and training)?
 - a. Does everyone in the organization participate in these endeavors? Explain.
4. How do the initiatives, programs, or policies you have in place assist you in TQM efforts (including education and training)?
 - a. Does everyone within the organization participate in the TQM efforts? Explain.

5. How do other programs within the organization that don't specifically target managing race/ethnicity and gender diversity or TQM include these processes in their efforts?
 - a. Why do these programs contain elements of either race/ethnicity and gender diversity management or TQM?
6. How are your employees involved in your race/ethnicity and gender diversity management and TQM processes?
 - a. Do all employees participate in these processes? Explain.
7. How does your organization involve and empower race/ethnicity and gender diverse employees in the participation in the management process?
 - Planning,
 - Problem solving,
 - Decision making, and
 - The operation of the organization
 - a. Which of the management processes do employees participate in?
 - b. Do all employees participate? Explain.
8. How does your organization initiate and manage working together, team building, and teamwork?
 - a. Do all employees participate in these activities?
Explain.
 - b. How are conflicts handled and resolved, in general?

9. How does your organization manage effective communication and sharing of information and knowledge between management and employee, between employees, and between team members (including education and training)?

Focus Group Interview Guide

1. How do the initiatives, programs, or policies you have in place assist you in your diversity management efforts (including education and training)?
 - b. Does everyone in the organization participate in these endeavors?
Explain.
2. How do the initiatives, programs, or policies you have in place assist you in TQM efforts (including education and training)?
 - a. Does everyone within the organization participate in the TQM efforts?
Explain.
3. How do other programs within the organization that don't specifically target managing race/ethnicity and gender diversity or TQM include these processes in their efforts?
 - a. Why do these programs contain elements of either race/ethnicity and gender diversity management or TQM?
4. How does your organization involve and empower race/ethnicity and gender diverse employees in the participation in the management process?
 - Planning,
 - Problem solving,
 - Decision making, and
 - The operation of the organization
 - a. Which of the management processes do employees contribute to
 - b. Do all employees participate? Explain.

5. How does your organization initiate and manage working together, team building, and teamwork?
 - a. Do all employees participate in these activities?
Explain.
 - b. How are conflicts handled and resolved in general?

6. How does your organization manage effective communication and the sharing of information and knowledge between management and employees between employees, and between team members (including education and training)?
 - a. Do all employees participate in these activities? Explain.

APPENDIX D CODE LISTS

A list of codes were generated from the data collected from each site. This list was derived from the conceptual framework, research questions, hypotheses, problem areas, and key elements from the study, such as the elements that relate to both race/ethnicity and gender diversity management and TQM. Once the case data was obtained, field notes from site visits, transcripts from interviews, and organizational documentation that entailed information about the phenomena under study were coded to reduce the probability of the overload of words.

TQM Efforts

<u>Infrastructure</u>	INF
<u>Implementation Process</u>	IMP
<u>Training and Education</u>	TE
<u>Deployment</u>	DEP

Managing Diversity

<u>Managing Endeavors</u>	MAE
<i>Programs</i>	MAE-Prog
<i>Plans</i>	MAE-Plan
<i>Practices</i>	MAE-Prac
<i>Policies</i>	MAE-Pol
<i>Education and Training</i>	MAE-EdTr
<i>Initiaives</i>	MAE-Inia
<i>Activities</i>	MAE-Acti
<i>Tasks</i>	MAE-Task

<i>Infrastructure</i>	MAE-Infra
<u>Managing Elements</u>	ME
<i>Working Together</i>	ME-Wot
<i>Empowerment, Participation, and Involvement</i>	ME-EPI
<i>Communication</i>	ME-Com

APPENDIX E BIOGRAPHY OF EXPERTS IN THE FIELD OF DIVERSITY MANAGEMENT

An expert is a person with a high degree of skill in or knowledge of a certain subject. I considered people experts in the field of diversity management based on the number of publications, books and articles; references by others in the literature as being knowledgeable; and conferences where they were the key note speaker or presenter regarding diversity management. The three people considered experts in the field of diversity management are Lennie Copeland and Drs. Roosevelt Thomas and Judy Rosener. I contacted these individuals requesting a list of fifteen organizations that were considered one of the best in their diversity management efforts. Organization D was chosen by two of these experts. Each of these individual's biographies are presented in this Appendix.

Lennie Copeland

Lennie Copeland is the author of a three-part film series called *Valuing Diversity*. She is also the producer of the *Going International* film series and co-author of *Going International: How to Make Friends and Deal Effectively in the Global Marketplace*. She has written numerous articles on valuing diversity. Several of her articles have been published in Personnel Journal and Administrator. Ms. Copeland is also a principal of Copeland Griggs Productions in San Francisco, CA.

Ms. Copeland holds a M.B.A. from Stanford University, a M.S.W. from Boston University, and a B.A. from Vassar.

Dr. Roosevelt Thomas, Jr., D.B.A.

Dr. R. Roosevelt Thomas, Jr. is founder and president of The Institute for Managing Diversity, a research and education enterprise with the objective of fostering effective management of employee diversity.

Previously, Dr. Thomas served as dean of The Atlanta University Graduate School of Business Administration, assistant professor at the Harvard Business School, and instructor at Morehouse College. He has been active for more than sixteen years as a consultant to numerous corporations, professional firms, non-profit organizations, and academic institutions.

Dr. Thomas founded The Institute in 1983 to further develop and research his pioneering theories on managing diversity. Among the Institute's clients are American Airlines; Amoco; Avon Products, Inc.; Coca Cola Company; CBS, Inc.; Goodyear Tire & Rubber; IBM; Johnson Products Company; The National Board of the YWCA; The Proctor & Gamble Company; Quaker Oats Company and Shell Oil. Dr. Thomas has led these companies in a variety of organizational development endeavors, designing and teaching management workshops for executives, and conducting research on the managerial and organizational practices.

Dr. Thomas is the author of the book *Beyond Race and Gender: Unleashing the Power of Your Total Work Force by Managing Diversity* (AMACOM, a division of American Management Association, 1991). His second book, *Differences Do Make a Difference*,

was released this spring. He also is the author of the Harvard Business Review article "From Affirmative Action to Affirming Diversity" (March-April 1990).

Dr. Thomas earned a B.A. degree in mathematics from Morehouse College, where he was elected Phi Beta Kappa. He received a M.B.A. in finance from the University of Chicago and a D.B.A. in organizational behavior from Harvard University.

Dr. Judy B. Rosener

Dr. Judy B. Rosener is a professor and former Assistant Dean in the Graduate School of Management at the University of California, Irvine. She holds a B.A. from UCLA in sociology, a M.A. from the California State University, Fullerton in political science, and a Ph.D. from the Claremont Graduate School in government and public administration.

Dr. Rosener teaches and does research in the areas of cultural diversity, men and women at work, and business and government. She has published articles in academic journals and the popular press (i.e., Harvard Business Review, Journal of Applied Behavioral Science, Public Administration Review, Journal of Organizational Behavior Teaching Review, Los Angeles Times, Japan Times, Sacramento Bee, New York Times Magazine, and Business World).

She is the co-author of *Workforce America! Managing Employee Diversity as a Vital Resource* (Business One Irwin, 1991). This book has sold over 40,000 copies and is used as a text in schools of management such as Stanford, John Hopkins, and UCLA and is a key resource in government agencies such as the IRS, U.S. Department of Labor, U.S. Forestry Department, and by human resource leaders in corporations such as McDonnell Douglas, Bank of America, Lotus, Merrill Lynch, TRW, Corning, and Nynex. Rosener is the author of "Ways Women Lead" in the Harvard Business Review (November/December, 1990), which has been cited extensively in the United States, Asia, and Europe. She is presently writing a book on the underutilization of women for Oxford University Press.

APPENDIX F CAREER PLAN

This document describes my conceptual image and long term vision (1-7 years). I have used my tenure here as a graduate student to prepare mentally, emotionally, and academically for the achievement of this vision.

Conceptual Image

My conceptual image exemplifies a person who is a role model and mentor to minorities and women. I am a person who personifies the belief that if one has the opportunities, and abilities one can be successful in any endeavor that one chooses. Moreover, I will be an innovator and a change master in assisting organizations in utilizing their diverse workforce in their performance improvement efforts.

Vision of Future 1-7 Years

After completing my Ph.D. in November, I will become an Assistant Professor at N.C. A&T State University in Greensboro, N.C. My vision and personal strategic plan focuses on my career as a faculty member and a role model. It entails the following:

- To work as a national spokesman with IIE to encourage young minorities and women to pursue careers in engineering, sciences, or mathematics.
- To volunteer my time and speak to elementary and junior high students about the engineering, sciences, and mathematics fields.
- To become an change master and help organizations better implement large-scale organizational efforts related to Total Quality Management and Diversity Management.

- To establish a \$5,000 yearly scholarship to a minority female pursuing a Masters in IE.
- To establish a tutorial program in Winston-Salem, NC to help minority students in math and sciences.
- To publish articles and books on managing diversity in the context of large-scale organizational change efforts aimed at improving organizational performance.
- To receive tenure indicating I am best at what I do.

VITA

Ganelle Grace

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EDUCATION

University of North Carolina at Chapel Hill, 1977-1981
BA Political Science
Studied at the University of Montpellier; Montpellier, France for one semester during sophomore year

North Carolina A&T State University, 1982-1986
MS Industrial Engineering
Graduate Assistant 1984-1985
Editor-in-Chief of the Industrial Engineering Alumni Newsletter
Assistant to Dean of the School of Engineering

WORK EXPERIENCE

Production Supervisor, DURACELL BATTERY USA, June 1989-Dec. 1989

- Instructed and guided hourly production employees; suggested and implemented ideas that increased productivity, efficiency and the reduction of downtime.

Industrial Engineer, ROADWAY PACKAGE SYSTEM, Mar. 1988-Aug. 1989

- Trained coordinators and dock contractors in proper package handling methods. Developed and implemented terminal operation improvement techniques. Improved terminal layout and material handling methods.

Computer Project Assist. DUDLEY PRODUCTS, INC. Dec. 1986-Aug. 1987

- Assisted the Assistant to the President with implementing a hand-held computer system for the nationwide sales force. Telephoned salespeople to receive their transmissions from hand-held into the main computer, generated reports on computer, analyzed salespeople's information in main computer and compared with submitted weekly reports. Provided support to sales personnel on adjusting the new system.

Environmental Control Officer, CITY OF W-S, June 1986-Dec. 1986

ACCOMPLISHMENTS

- Received the following fellowships while at Virginia Tech: Deans, Alcoa, and Helen Carr
- Inducted into Alpha Pi Mu Honor Society for Industrial Engineers
- Coordinator the Management Systems Engineering (MSE) Option which included editorship of MSE newsletter