An Exploratory and Descriptive Analysis of Total Quality Management and Professional Nursing Education to Meet Healthcare Needs

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LOYOLA UNIVERSITY CHICAGO

AN EXPLORATORY AND DESCRIPTIVE ANALYSIS OF
TOTAL QUALITY MANAGEMENT AND PROFESSIONAL NURSING
EDUCATION TO MEET HEALTHCARE NEEDS

A DISSERTATION SUBMITTED TO
THE FACULTY OF THE GRADUATE SCHOOL
IN CANDIDACY FOR THE DEGREE OF DOCTOR OF PHILOSOPHY
DEPARTMENT OF EDUCATIONAL LEADERSHIP AND POLICY STUDIES

BY

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ABSTRACT

This research is an attempt to examine the profession of nursing and Total Quality Management (TQM) with implications for educational changes in nursing curricula and professionalization process for the twenty-first century. The purpose of this research is to describe, explore, and analyze the Quality Movement, the emergent Total Quality Management concepts, and their implications for healthcare, the profession of nursing, and professional nursing education.

An historical tracing of the Quality Movement begins in the 1940s in the American manufacturing industry, shifting to Japan, and returning to America where quality concepts are "rediscovered" in the 1980s. Contributions of early and contemporary quality proponents along with peripheral influences are discussed. As the Quality Movement reached healthcare and education, quality advocates in these fields shared their successful applications of TQM concepts.

From the Quality Movement, emerged a TQM conceptual framework with underlying sociological and educational concepts. These core concepts laid foundation for the facilitation, justification, and acceptance of TQM across disciplines, and added to TQM's longevity. The synthesis of the TQM concepts into nursing practice and education to meet healthcare needs of the twenty-first century are justified. TQM's utility in healthcare and the profession of nursing are demonstrated by addressing
healthcare trends and reform through the constructs of the five components of healthcare. In response to the dynamic healthcare reform, the profession of nursing practice is challenged to serve society by fulfilling its healthcare needs through new and expanded nursing roles. The synthesis of TQM tenets, including its technical and humanistic components, into professional nursing education demonstrated TQM's utility to prepare future nurses with the necessary skills and knowledge to enhance quality patient outcomes. To exemplify the utility of TQM in nursing practice, a patient care/case study illustrated the utilization of a patient-family interdisciplinary healthcare team meeting as a TQM tool.
CHAPTER I

THE BEGINNING OF THE QUALITY MOVEMENT

Introduction

The purpose of this dissertation is to provide an exploratory and descriptive analysis of the Quality Movement, the emergent Total Quality Management concepts, and professional nursing education with implications for the nursing profession and nursing education to meet healthcare needs for the twenty-first century. The research questions which will be addressed are as follows:

(1) What are some of the Total Quality Management concepts and theoretical orientations that are relevant to the nursing profession?

(2) What relationships exist, if any, between Total Quality Management and the professionalization process of professional nursing education?

(3) What are some of the basic findings that can be extrapolated from Total Quality Management and their applicability to the nursing profession?

The exploratory and descriptive historical approach of this dissertation lays the foundation for the Quality Movement in America. Chronologically, the historical perspective of the Quality Movement begins in the manufacturing industry radiating to the service industry, healthcare and education and spanning the period from the 1940s through the 1990s. The contributions of William Edwards Deming, Joseph Juran, and Philip Crosby, all early quality proponents, are discussed, along with the contemporary writings of Stephen
Covey, Peter Senge, Patrick Townsend, and Karl Albrecht. In addition, peripheral influences on the Quality Movement are identified as they embellish the quality philosophy.

Emerging from the Quality Movement are key Total Quality Management (TQM) concepts which form a conceptual framework with underlying sociological and educational concepts. These core concepts promote the facilitation, justification and acceptance of TQM into various social institutions. The TQM concepts along with its inherent sociological and educational concepts are applied to the profession of nursing and professional nursing education.

Paramount to this analysis are the definitions of quality that have been propounded by various individuals and organizations. The word quality has a multitude of meanings on societal, institutional, familial and individual levels. Interestingly, each of the discussed quality proponents offers a definition of quality. Although various definitions of quality are identified by quality proponents, commonalities and contrasts exist. Ultimately, I believe that the definition of quality is relative and that quality is achieved within the framework of meeting the needs of an individual within a particular environment. This quest for quality is visible in our daily lives and extends from social institutions to the unit of society, the family, and to the unique individual. This quest for the elusive element of "quality" is an incessant search for perfection, and defies satisfaction. This quest may be the hallmark of the Quality Movement.

The first chapter commences an historical tracing of the Quality Movement from the initiation of quality concepts in America to their serious applications in Japan and, later, the reintroduction and embracement of the quality philosophy in America. In addition, early proponents of the Quality Movement are credited for raising societal awareness of the Quality
Movement so as to effect significant change in management and work paradigms in manufacturing, service, healthcare, and education sectors.

The Quality Movement from America to Japan and Back to America

In the early 1930s the seeds of the Quality Movement's concepts were planted in America by physicist Walter Shewhart's statistical quality control ideas. Later in the 1940s, Shewhart's ideas were promoted by William Edwards Deming in America (Walton, 1986). However, the quantity not the quality of products was the driving force in the American manufacturing industry. According to Deming advocate Mary Walton (1986), in the 1940s, American manufacturing industry's quality control consisted of the inspection of final products. Defective products were not a concern because they were not hindering profits. Most manufacturers believed the application of Deming's quality ideas were too time consuming. Thus, with only a limited application of Deming's quality philosophy in American manufacturing industry, interest in Deming's techniques faded.

A comprehensive application of quality concepts and an overt Quality Movement was initiated in the Japanese business sector after World War II and continues forty years later, whereas a notable rise and progression of the American Quality Movement in the manufacturing industry was evident in the 1980s and continues through the nineties. Acknowledging the results of the Quality Movement, the Americans are forging ahead with quality concepts in the manufacturing and service industries, healthcare, and education.

A thrust in the Quality Movement visibly began in the 1950s with the Japanese application of Deming's quality principles. After World War II, the Americans gave the
Japanese Shewhart's Statistical Control techniques (1931) and the American Standards Association's publications for wartime production (as cited in Walton, 1986). The Japanese were familiar with W. Edwards Deming due to his assignment to Japan in 1947 by the Supreme Command for Allied Powers to assist with the Japan. Because the Japanese respected Deming's work, their government invited him back to lecture on his philosophy of quality and statistical theory. The twin foundations of Deming's philosophy were statistical analysis and a cooperative management approach to process improvement, referred to as Total Quality Management (TQM).

In 1950, a special force of people called the Japanese Union of Sciences and Engineering (JUSE) incorporated Deming's Total Quality Management (TQM) principles into their organizational management systems (Deming, 1986). The JUSE's aim was the reconstruction of Japan through quality improvement education for workers and the implementation of continuous improvement methods. Quality improvement education was offered to all workers, including the rudiments of statistical methods. Hourly workers learned to make, understand, and use control charts. Courses in consumer research and methods of sampling were taught as part of their jobs. Thus, the Japanese incorporated Deming's strategies for quality products and customer-focused service in their manufacturing industry. By 1951 the Japanese had created the Deming Prize, awarded to businesses for quality achievement which shaped Japanese business practices (Walton, 1986).

Deming predicted that Japan's economy would rise to equal the world's most prosperous countries because of the dedicated workforce, quality improvement knowledge, and the devotion of management to their jobs. The Japanese displayed the eagerness to learn
the new quality concepts and methods. The faith existed that management would carry out their responsibilities and the expansion of education mandated by JUSE would happen. Deming's teachings helped institutionalize Total Quality Control (TQC). The term "Total Quality Control" originated with quality advocate Armand V. Feigenbaum (as cited in Walton, 1986, p. 122) in his book **Total Quality Control: Engineering and Management**. Feigenbaum reinforced the belief that an effective quality system included ongoing development, maintenance, and improvement pervading all organizational activities. Later, the terms Total Quality Control referred to applying the Deming cycle to problems within all the sectors in a company (Walton, 1986).

Some of Deming's quality teachings, such as his cycle and process variation, were adapted from Deming's mentor, Walter Shewhart, a statistician and physicist at Bell Laboratories, whom he met in 1927 (Gabor, 1990). The original purpose of the "Shewhart cycle" (Deming, 1986, p. 88) was to create a preventive system of checks, improvements, and analysis to produce products correctly and to predict the effects of changes. Later, in Japan, the Shewhart cycle evolved into the Deming cycle. Deming extended the cycle's application to customer-driven product planning processes designed to continuously improve products and services in anticipation of the changing needs of the market. The Deming cycle has been referred to as "the PDCA cycle for 'plan, do, check, act and analyze' " (Gabor, 1990, p. 21). The cyclic method is utilized to monitor almost every process within a corporation. As the rank and file form new teams to tackle new improvement projects, the cycle is reemployed. Inevitably, the Deming cycle led to the redesign of products on the basis of consumer research, which took the pulse of the consumers' reactions and then sought
explanations for the findings. This cycle has remained the foundation of the Japanese strategic planning system known as policy deployment and referred to "as 'Kaizen', the Japanese term for continuous improvement" (Drucker, 1993, p. 303).

As a statistician, Shewhart furnished Deming with some theoretical underpinnings for the Quality Movement. Shewhart proposed that variation existed in each process and that variation was managed by using the principles of probability and statistics (Deming, 1986). The effectiveness in controlling variations through Shewhart's techniques was proven in the statistical control of war materials. Utilizing Shewhart's ideas, Deming confirmed that all processes have some levels of variation that are likely to diminish quality. Since variation was inevitable, Deming proposed that management needed to understand variation in order to implement process improvement. In addition, Deming's tutor Sir Ronald A. Fisher, a geneticist and pioneer of modern statistical analysis in the thirties (Gabor, 1990) enhanced Deming's statistical quality concepts. Thus, Shewart and Fisher contributed to Deming's quality concepts, laying the framework for the quality revolution in Japan.

In 1954, Joseph Juran was requested by Japanese Union of Sciences and Engineering to present his insight into management's responsibility for the improvement of quality and productivity (Gabor, 1990). Some consider Juran to be a substantial proponent and founder of the Quality Movement like Deming. Consequently, Japan's industry benefited from the thinking of both men.

Thus, the miracle of the economic rise of Japan was initiated in the 1950s. A new economic age had begun. The team concept of Quality Circles was formalized by Dr. Ishikawa, the president of JUSE, in 1960 (Deming, 1986). Although the quality circles
originated in the U.S. after World War II, it was the coupling of quality circles with the Statistical Process Control method that contributed to their effectiveness in Japan (Drucker, 1993). The new management paradigm shift resulted in a decrease in rework, new products, and a reduction in accidents. Productivity and profits soared. Management and workers joined together in the quality transformation of Japan's manufacturing industry. For over forty years, Japan has continued to advance in the use of cross-functional teams to pursue three new products to replace each present product with the same investment of time and money. This process of improving their own products and services is called "systematic abandonment" (Drucker, 1993).

During this period of Japan's economic rise after World War II, quality in American products was waning, although the American industrial leaders did not acknowledge it at the time. This lack of acknowledgment of any product quality deficit continued to build and be ignored even though its presence had been illuminated to American society by the founder of the Quality Movement, W. Edwards Deming, beginning in the late 1940s.

The Quality Movement was weak in America. In 1942 Statistical Control courses were offered to engineers through Stanford University by Deming (Deming, 1986). But this spark of interest in statistical methods was not enough to make a change in quality, for industrial management did not recognize the utility of these approaches. Even as late as the 1950s it was not considered vital to reduce mistakes in American industry. Although management tried to solve individual problems and quality control departments began to arise, there was little, if any, follow through. Management's approach was to put out fires rather than to examine processes and assign the responsibility for quality to line workers
Perpetuating the practice of removing quality responsibility from line workers has been an antithesis of the Quality Movement.

At this time, few structures were in place to teach management, and those that existed were ineffective. The Quality Movement was dying in America but flourishing in Japan. Post-World-War-II American industry desired mass production, and not necessarily quality, especially in the automobile industry. Interest in style and built-in obsolescence prevailed from the 1950s through the 1970s.

That there was an economic toll to following this path was not accepted until the 1980s, especially in the automobile industry, when American society finally acknowledged a lack of product quality. The 1980s have been perceived as a time of crisis which led the Western industrial societies to examine their management methods. Poor quality in industry was costing as much as 40 percent of industry's earnings and 20 percent of their sales to foreign countries (Feigenbaum, 1988; Juran, 1988). Quality thinking began with quality control (QC) and moved to quality assurance (QA). Quality Assurance was a method to identify root causes in problems to prevent errors and guarantee quality. Consequently, Zero Defects became a popular term (Albrecht, 1992; Crosby, 1980). Industries also noted that healthcare benefits were becoming costly to provide for their employees. For healthcare institutions themselves, the cost of care was rising as financial support from the government diminished. In education, the complaint was that spending was not necessarily producing the student outcomes that were desirable for the transition of the student into industrialized society. The lack of quality education would create not only financial but societal costs, if society did not produce persons who could contribute to its growth and development. These
considerations, which were associated with financial and societal costs, were an impetus that carried interest in the Quality Movement from manufacturing to healthcare and then into education in the late 1980s and 1990s.

Economic, healthcare, and educational institutions of society have been impacted by the concept of quality, since each defective product or service takes time and money to mend. Some breaks in quality may have severe results, such as loss of lives when dealing with defective technologies within healthcare. The overall cost of poor quality is a genuine threat to modern industrialized societies.

During the 1980s in America, quality proponents introduced their concepts, thus increasing the awareness of the potential benefits of the Quality Movement. The proponents of the American Quality Movement discussed in this dissertation are the early quality proponents, Deming, Juran, and Crosby, generally accepted as the gurus of the Quality Movement. The contemporary quality proponents presented in this paper are Covey, Senge, Albrecht, and Townsend. Each proponent has contributed concepts to an encompassing theme of quality, moving from an organizational perspective to individual involvement. Each has offered a unique perspective, and yet, there exist some key common concepts in the Quality Movement. Since Deming's writings have laid the foundation for the Quality Movement, his thinking will be the springboard for the comparison and contrast with the other proponents of quality within this dissertation.
Early Quality Proponents

William Edwards Deming

W. Edwards Deming (1900-1994) has been a foremost proponent of quality and is often cited as the Father of the Quality Movement. Deming came forward identifying the void that existed in American industrial institutions in the 1950s. He said quality was the missing characteristic in American products hampering American growth and respect in the eyes of the world. In his response to the quality crisis, he suggested that management facilitate quality improvement. This theoretical orientation was later referred to as Total Quality Management (TQM) by participating industrial organizations. However, in the 1950s, the TQM philosophy was not accepted by American businesses as being valuable.

It is interesting to note that Deming was "discovered" (Walton, 1986, p. 17) in America in 1980 during a televised program proclaiming the large savings of a well-known corporation applying Deming's principles. This program gave Deming national attention, as he proposed that people should 'work smarter, not harder' (as cited in Walton, 1986, p. 19). Deming's (1986) book Out of the Crisis has remained a classic in the Quality Movement. In the book, he addressed the necessity of transforming the American style of management, since management has failed to plan for the future and to foresee problems. The consequences of wasting manpower, materials, and machine time is an increase in the cost of products and services. The resultant loss of markets and related unemployment were, therefore, actually management made phenomena and not due to impersonal market forces. Deming gave management the ultimatum to learn, change, and improve both quality and
productivity. Deming wrote that only a transformation in American management style and
government relations within the industry could halt the decline and move America forward.

According to Deming, all industries and services have been subjected to the same
management principles. In Deming's Fourteen Points for Management, he intoned, in the style
of the Ten Commandments, the criteria needed as the basis of quality improvement in
organizations and the principles of transformation for organizations. These fourteen points
served as a foundation for other quality advocates later in the growth of the Quality
Movement.

On the whole, Deming's fourteen points emphasized: (1) education, (2) constant
improving of the system of service and production, (3) leadership, (4) communication
between people and departments, (5) the importance of the individual employee, and (6) self-
 improvement. The essence of the fourteen points which have been geared toward managers
as leaders are:

"1. Create constancy of purpose for improvement of product and service" (p. 24). Constant
improvement was ongoing and addressed future problems. Through the allocation
of resources for research and education, this commitment was supported. Education was
continuous and throughout the organization.

"2. Adopt a new philosophy" (p. 26). The new philosophy would not allow defects.
Likewise, persons who did not know their job and ineffective management were not
tolerated.

"3. Cease dependence on mass inspection" (p. 28). Inspection presupposed that
defects will occur rather than focusing on the right outcome the first time. Inspection was an
after thought and too late. Besides, it was necessary to train employees to understand what was a defect or a mistake and its consequence.

"4. End the practice of rewarding business on the basis of price tag alone" (p. 31). The price of a service or product did not relate to quality. In fact, some products or services that were high in cost were not of high quality, and actually even more costly in the long run due to additional maintenance or replacement.

"5. Improve constantly and forever the system of production and service" (p. 49). Because effective change came through management's understanding of the processes and application of statistical methods to the processes, knowledge was the key to this improvement. To advance learning and skill on the job, every employee should ask not only what was done today, but how one has advanced one's education for greater satisfaction in life and continual improvement.

"6. Institute training" (p. 52). To address concepts of quality improvement and teach customers' needs, education was needed for both management and staff. In this manner, the skills of all employees were tapped, since the greatest waste had been the failure to use the abilities and education of people. Thus, continuing education was expected of all, recognizing that people learn in different ways and that education would be ineffective unless the barriers to good work were removed. For a quality transformation to transpire, every person in management needed a rudimentary knowledge of: (1) statistics, (2) the nature of variations, (3) the special and common causes of variations, and (4) operational definitions.

"7. Adopt and institute leadership" (p. 54). Management should not supervise, but should lead and seek system improvement. Leadership understood that not everyone is above
average in work, so those who were not statistically in line are given assistance. Because a leader was not a judge, but a colleague who counseled and led people every day, both leader and followers learned from each other. Leadership, not supervision, was needed for survival.

"8. Drive out fear" (p. 59). In doing so, every employee worked effectively for the organization. When a person worked under fear, a false sense of accomplishment occurred and work relationships were not built on trust. Thus, quality was imposed from the outside without an internal sense of value. Consequently, fear impaired performance. Moreover, fear created rumors, and rumors ran the organization. Similarly, knowledge can sometimes initiate fear, because it may disclose the failings in a company. However, most often, new business stemmed from fundamental research and the understanding of failures. Hence, new businesses often arise from, and require, the infusion of knowledge.

"9. Breakdown barriers between staff areas" (p. 62). New avenues for generating innovative approaches, problem solving, viewing a problem from various perspectives, and acknowledging the value of individual intellectual abilities were the results of open communication between departments. Open communication which was fostered by teams and teamwork was sorely needed in companies. However, practices such as rating individuals by numbers and annual ratings were antagonist teamwork. Because teams required working with other people, the individual accomplishments of an employee may not reflect productivity on the performance appraisal. Consequently, teamwork was a risky endeavor for the individual employee. In addition, teamwork required that one person's strength compensated for another's weakness, sharpening each other's wits.

"10. Eliminate slogans, exhortations, and targets for the work force" (p. 65).
These tactics were valueless, provided empty motivation to the employee, and may cause resentment. Because most of the problems came from the system, these actions were superficial and directed at the wrong place. Hence, the main responsibility of management was to improve the system.

"11a. Eliminate numerical quotas for the work force" (p. 70). The manner in which the rates or objectives for employees were established was questionable. The real intent was to predict costs, yet the quotas or objectives actually contributed to costs. Numbers were to be used as statements of fact, and work objectives were to be replaced by knowledgeable and intelligent leadership. "11b. Eliminate numerical goals for people in management" (p. 75). Goals beyond the capability of the system cannot be reached. Furthermore, goals were meaningless within an unstable system. Management by numerical goals was management by fear, lacking knowledge of what to do. On the other hand, to manage, one led, and leading meant understanding the work for which both managers and employees were responsible. Furthermore, the real company goal was the constancy of purpose of never-ending improvement, for just focusing on the outcome did not improve the process or activity.

"12. Remove barriers that rob people of pride in workmanship" (p. 77). To Deming, performance appraisals for personnel focused on the end product rather than on helping the person to improve. Consequently, all employees became a commodity, being hired or placed back on the market depending upon the need as seen by management. People needed to believe they were able to communicate with management, to know what was expected of them, and to know what was acceptable. In addition, feeling a lack of importance increased
absenteeism and mobility. These consequences were primarily due to poor management, since pride in work motivated employees to be on the job.

"13. Encourage education and self-improvement for everyone" (p. 86). This principle reinforced the importance of education within an organization to assure quality improvement. The allocation of money for quality, in itself, was not enough to bring quality into an organization. An organization, not only needed good people, but people who were improving with education. There was no shortage of good people in organizations; however, there seemed to be a shortage of good people with a high level of knowledge in every field. Hence, people should continue their education on their own and not just wait for reimbursement. Thus, their careers should offer broadening opportunities so employees could better contribute to society.

"14. Take action to accomplish the transformation" (p. 86). Because every job and activity is part of a process, work was divided into stages. At every stage, there were two factors: (1) production, where input changes to output, and (2) continual improvement of methods and procedures to better satisfy the customer at the next stage. At all stages, every person worked together toward the quality transformation for which a customer would boast.

Essentially, the fourteen points formed a theory of management. Although the fourteen points initially seemed to be written for industry, Deming declared that eventually quality improvement would reach services such as hospitals, medical services, and care of the aged. Deming believed the application of the fourteen points would transform the Western style of management.
Unfortunately, barriers often stood in the way of applying of the fourteen points. According to Deming, everyone doing their best was not the answer. People needed: (1) to know what to do, (2) learn how to change, and (3) how to use the fourteen points. In addition, Deming identified "Deadly Diseases" and "Obstacles" (p. 97), which have stood in the way of management transformation. The cure required tremendous changes in the Western style of management, calling for total cultural changes in organizations, from the top down and from the bottom up, as a team effort.

Deming differentiated between his metaphors of "Deadly Diseases" and "Obstacles" based upon the degree of difficulty of eradication and severity of inflicted injury with the "diseases" being more severe. Deming explained his "Seven Deadly Diseases" initiating leadership. The first crippling "disease" was "the lack of constancy of purpose" (p. 98) with no long term planning. The second was "emphasis for short-term profits" (p. 99). While most American industries were concerned about the quarterly dividend for the stockholders, continually working toward improvement of the processes for producing products and services would bring back customers and better protect investments. Thus, if a company continued to offer good products, profits would follow.

The third mortal "disease", according to Deming, was the annual employee performance evaluation or merit rating. He viewed them as management by fear, because these practices focused on achieving an end product. The employee was rewarded for working within the system, not for attempting to improve it. The message to the employee was not to take a risk as the game became one of politics and being subservient. Therefore, individuals needed to promote themselves to attain a good evaluation. Because performance
evaluation generated numbers which were easy to count, it relieved management of formulating a truly meaningful measurement of performance. And it gave the impression that numbers were more important than an employee's long-lasting contributions to the organization. Consequently, performance reviews avoided the problems of people and did not focus on the leadership to help them. As a result, the organization was the loser.

On the other hand, enlightened leadership rewarded an employee for work on a service or product that generated new business for the future and provided a better living. This generative employee studied the effects of the new product or service upon the community, education, style of living, along with migration in and out of urban areas. Moreover, this generative employee would write papers, make presentations, and attend meetings of the American Sociological Society, The American Statistical Association, and the American Marketing Association. The fruits of these labors may not be seen for years, but beyond profits, this kind of rare value was a benefit to a community or society. However, in the absence of enlightened leadership, this type of generative employee was ignored.

Deming predicted that modern principles of leadership would replace the performance review. In reality, the performance of an employee was the result of a combination of various forces: (1) the person, (2) equipment, (3) material, (4) supervision, (5) peers, (6) customers, and (7) environment. A leader understood that because there were many variables that affected the system and the individuals within the system, the annual performance rating was futile. However, over a period of time, the performance of an employee could be assessed by recognition of outstanding performance or deterioration.
If the performance of a person fell outside the limits of the differences within the system, then it required leadership to investigate the possible causes. If workers were blamed or penalized for performance over which they had no control, then there was frustration, dissatisfaction, and lower production. If a person was outside of statistical performance limits, then there was a reason and management should find out why. The reasons could be personal or work related. On the other hand, if a person performed well, others should know so they might learn. If the job for which the employee was hired could not be learned, then the company had the moral obligation to retrain the employee for the right job. Because people must feel secure in their jobs for the future, the acquisition of new skills assisted in building this secure feeling.

A fourth fatal "disease" was "the mobility of management . . . mobility of labor in America" (p. 120). Uncertainty existed in corporations, even if there was a commitment to quality. Mobility of personnel fostered fear and unrest, along with the elimination of teamwork which was vital to an organization's continuing existence. Moreover, when an employee's span of work lasted only a few years, it was difficult to be committed to any policy.

The fifth "deadly disease" was "management running a company by visible figures alone (counting the money)" (p. 121). Although visible figures were important, more significant figures were unknown or unknowable effects, of which there were many. These would include: (1) the multiplying effect that came from a satisfied customer, (2) the boost generated from improvement in quality, (3) the commitment of management to remain in business suited to the market regardless of turnover, and (4) the improvement of quality and
productivity through teamwork. Also, losses due to annual performance ratings and from barriers to pride in workmanship were hidden or unknown figures.

The sixth "deadly disease" was "excessive medical costs" (p. 98). The direct costs of medical care for employees added to the price of a product. For example, direct costs of medical care included benefits from payments of wages during treatment for injury on the job and health counseling for alcohol and drug abuse. The seventh deadly "disease" was the growing cost of liability due to lawyers who practice on a contingency fee basis.

According to Deming, "obstacles" were easier to cure than "diseases". One "obstacle" was believing that improvement of quality and productivity suddenly sprang forth. However, employee satisfaction and pride in accomplishment motivated employees to improve quality. Searching for a step-by-step method of quality improvement was useless. Improvement in quality served as a method that was transferable to different problems, circumstances, and organizations.

Another "obstacle" specified by Deming was the obsolescence that existed in our business schools that teach only theory. In schools, sociological verbiage replaced a basic understanding of human behavior. Too often, the human side of labor was studied superficially. More importantly, the student should work under a good mentor within a company. In like manner, a Master-degree prepared teacher was the minimum requirement for business courses. In addition, the student must learn that having data in the computer was not enough and not to rely on computers for solutions. The understanding of the data and of any significant variation was critical.
Deming's last two "obstacles" addressed the responsibility of quality and the workforce. One approach was the establishment of a quality control department, which removed the responsibility from the employees. The other was laying troubles entirely on the workforce. Neither approach promoted a positive utility of the workforce. Commonly, workers are prohibited from improving quality, because of the system which is the responsibility of management.

For Deming, the success of quality improvement in an organization depended upon the application of his fourteen points and knowledge of the Seven Deadly Diseases and Obstacles. Quality improvement was an ongoing learning process with top management leading the way. This included learning to apply Deming's principles. Namely, it was not enough to meet specifications in individual materials that compose a completed product, because the customer did not care about the specifications of parts, but rather if the whole product worked. Learning also included understanding the fallacy in "zero defects" (p. 22) proposed by some quality enthusiasts. For no matter how much effort was infused into a system, it could not be completely free of accidents. Most accidents were insignificant with no harm done. However, statistical methods provided the analysis to guide the understanding of accidents and their reduction. Statistical thinking determined if the cause belonged to the system, to a specific set of conditions, or persons so that remedial actions could be taken.

Deming gave credit to his mentor, Walter A. Shewhart, for some of his quality concepts. The Shewhart cycle was the basis of the quality process and was later renamed by the Japanese as the Deming cycle. In 1939 Shewhart presented his cycle in Statistical Method from the Viewpoint of Quality Control (as cited in Deming, 1986). Shewhart's cycle
consisted of four steps that could be applied for improvement in any stage of work. In stage one, the team asked: (1) what would be its most important accomplishments to improve work, (2) what changes would be best, and (3) what data were available. If new observations were necessary to improve work, a plan or test was needed, followed by deciding how to use the observations. Stage two encompassed carrying out a small-scaled test. Then, in step three, the effects of the change or test were observed. Lastly, in stage four, the results were studied in light of what was learned and what could be predicted. The cycle could be repeated. Any of the steps could be enhanced by statistical methodology for economy, speed, and protection from faulty conclusions which failed to test or measure the effects of interactions. These ideas were later identified as the Statistical Process Control (SPC) method.

Another important quality improvement concept initially credited to Shewhart by Deming was that variations existed in processes and that statistical methods could be used to determine the existence of a cause of a variation. Dr. Shewhart was given the credit for creating the concept named "assignable cause" in variations. Later, Deming changed the adjective to "special" for a cause that was specific to some group of workers, a particular production worker, machine, or local condition. "Special causes" (p. 310) were due to fleeting events. "Common causes" (p. 310) of trouble were faults in the system. These terms were first placed in print in 1956 by Deming (p.314).

Deming estimated that most troubles and most possibilities for improvement were 85 percent to 94 percent related to the system or "common causes", which were the responsibility of management. Only 6 percent to 15 percent of problems were "special causes" for which the production worker was held responsible. Deming's experiences have
been related to the Pareto Principle, sometimes called the 80/20 rule of thumb, named for the turn-of-the-century economist Vilfredo Pareto (Scholtes, 1988). Since Pareto's time, his idea has been applied to management, supporting that at least 80 percent of errors could be corrected by improving systems and less than 20 percent were controlled by workers. Thus, management should concentrate on the vital few sources of problems and not those of lesser importance.

The now famous Deming "red bead demonstration" (p. 110) illustrates that it has been easy to blame the workers for faults that were really system problems or "common causes". The purpose of the demonstration was to eliminate the red beads, which represented sources of trouble in the organization. Since the process of eliminating red beads was unstable, the workers could not achieve the expected performances by management. It proved that the variations arose from the system, not the workers. The system included (1) people, (2) their recruitment, (3) training, and (4) supervision. Improvement in the system resulted in (1) lower costs, (2) greater profits, (3) increased earnings of employees through increased productivity, and (4) reduced complaints from customers.

Deming claimed that the central problem in management and in leadership was the failure to understand causes of variation. Management's lack of differentiation between "common" and "special" causes in variation by management has resulted in frustration and greater costs, which was the opposite of what was needed in organizations. A leader would understand that the type of action necessary to reduce the "special causes" of variation was different than the action to reduce "common causes" from the system itself. To understand variations, simple run charts, which gave insight into the capability of a process, could be
used by any employee. The production worker could determine if a certain variation was outside the control limits and be eliminated. In 1925, Shewhart created a simple control chart with "3-sigma control limits" (p. 319). This chart provided the guide to achieve minimum net economic loss from management's mistakes. The utility of control charts was that they detected "special causes" that were assigned to a worker, group, or a passing situation, and any observed variation due to "common causes".

Deming, like Shewhart, acknowledged the difficulty in defining quality. For Deming quality was defined by "the needs of the customer" (p. 175). He asked managers questions to develop their understanding of quality as related to their products and services, so that they could make the quality transformation. This transformation included basic questions regarding how managers defined quality and how it was measured.

To Deming, the perceptions and definitions of quality differed according to the role of the person. The producer of the product was in a better position to describe the product or service that would help the customer in the future. The workers needed to know what quality was needed in the job, and management needed to know how to plan ahead for a quality product or service in the future. The important component of quality was the consumer's judgment of the product or service. The consumer's judgment might require several years for formation after use of the product or service. The customer's reaction to service was immediate, but their reaction to quality might be delayed.

According to Deming, quality was defined "in terms of the agent" (p. 168). Workers may define quality in relation to the pride they took in their work. To them, poor quality
meant loss of business or even their jobs. Quality to a manager may mean getting the numbers out. However, quality should also include continual improvement in processes and leadership.

Deming's philosophy proposed that "the customer is the most important part of the production line" (p. 174). It was necessary to study the needs of the consumer and provide the corresponding services or products building quality into them. The future loss of business from a dissatisfied customer is unpredictable. The cost of replacing a defective part could be estimated, but the cost of releasing a defective part to a customer was immeasurable. Most often a dissatisfied customer did not complain, but just purchased another product or service. The profit in business was in the repeated customer who praised the product or service.

Whereas, traditional advertising adjusted the public to the product, consumer research adjusted the product to the people. Consumer research attempted to understand the consumer needs and wishes to design better products in the future. For Deming, customer research assisted building in the quality before the customer complained. A way to obtain feedback from the customer was to make the product, test it, put it on the market, and test it in service. This sampling obtained input from the public and may be referred to as democracy in industry. Consumer research guided quality improvement to determine what was useful.

Deming spoke of the relationship between costs and quality in products. Less quality meant higher costs. Defects were not free, and rework was costly. Quality happened at each design stage. Since every product was regarded as one of a kind, there was only one chance for optimum success. Repairs and replacement were only a small part of the cost of a defect in a product. The loss of future business from a dissatisfied customer, and any potential customer that learned about the experience might be enormous and was impossible to
estimate. He proposed that there be no toleration of defective material at any stage of production. More simply stated, "defects beget defects" (p. 428).

Deming called for a cultural revolution in management, in which management would be committed to the personal welfare of its employees. Without this commitment, it would be impossible to spark employee interest to produce quality. Human resources were the most renewable resources. The hiring, training, and promoting of employees were responsibilities of the corporation as a whole. Threatening an employee's job as a way to make the employee to work was not acceptable. Instead, it was considered the manager's job to encourage working toward the goals of the company by satisfying the human needs for job satisfaction and self-fulfillment.

The human resource side of the organization also valued continuous learning and education of the employee. Deming encouraged optimal use of knowledge and continual development of people and processes. Everyone, regardless of their job, needed a chance to learn and develop. The best interests of the company and employees resulted in an opportunity to develop. Knowledge was a scarce national resource. Knowledge, in any field, could be increased by formal or informal education. For continued existence, companies needed to employ the knowledge within the minds of their people. The waste of human knowledge that existed and the unused capacity available for development were incomprehensible. A company that wished to build an organization of quality and productivity must make use of all the knowledge and skill in the company.

Considering the unused skills and knowledge of both the unemployed and employed, Deming proposed that the U.S. may be the most underdeveloped nation in the world. People
are utilized by training, motivating, and managing them with effectiveness. Furthermore, management must declare a policy for the future in order to stay in business, thus providing more jobs for people. To take care of their employees, management must address barriers on the job that rob the worker of the birthright of pride in workmanship.

The transition of the Quality Movement from the manufacturing industry to services was natural. According to Deming, the 1980 census figures indicated that eighty-six out of one hundred companies were in the service sector, so the quality transformation needed to occur here. Service organizations needed a system of quality improvement that would (1) improve a person's work, (2) increase output, (3) utilize less labor, and (4) reduce cost. In addition, service providers, like manufacturers, needed to be statistically minded. Healthcare providers, engineers, and managers should learn simple, yet powerful, statistical methods and decision theory. These courses assisted in solving problems in the work world. To Deming, the principles and methods for improvement are the same for a service as for manufacturing, but the application differs.

Deming pointed out the difference between a worker in manufacturing and in the service sector. In the manufacturing sector, the worker could see the product. Not only was there a job, but the worker contributed to something that was tangible and to the quality of the final product. However, the manufacturing laborer could only visualize the response of the customer, for the customer was not seen.

In the service sector, the worker has been perceived as only having a job, and may not be aware that the product is service-related. A customer's reaction to the service is immediate, but the reaction to quality may be delayed. Good service keeps the customer happy. Happy
customers keep businesses going and provide jobs, whereas, unhappy customers bring losses. The service employee directly interacts with the customer, and employee's ability to please the customer is a priority. This ability of the service employee to please the customer should be a priority in the hiring and training of employees.

Common to both manufacturing and service were costly mistakes and defects. There was a direct correlation between the increase in mistakes and costs. Mistakes were costliest when they reached the customer. No one really knows all the financial and social costs of correcting a mistake.

Deming offered examples of how the fourteen points were applied to various service organizations such as (1) airlines, (2) hotels, (3) postal services, (4) railways, (5) banks, (6) utilities, and (7) schools. In addition, the quality transformation from industry to healthcare was forthcoming. The application of the fourteen points to medical services were possible. First, it was necessary to define what was meant by service or care to patients and what type of services would be needed five years in the future. Then, the identification of healthcare customers was established, along with the constancy of purpose to provide medical service in light of needed patient care services. This constancy of purpose created innovation. All levels of employees would be provided education in statistical techniques. This included statistical control and run charts, calculating the average and upper and lower limits for a process.

Statistical theory benefited medical interventions and could prevent malpractice. Medical intervention was the interaction between physician, treatment, and patient. Medical personnel needed to discover if the cause of unfavorable medical intervention outcomes was in the system of medical care or some special cause, such as carelessness of the physician or
patient. Deming recommended that medical personnel construct operational definitions for the special causes of unfortunate medical interventions. According to Shewhart (1939), an operational definition provided a communicable meaning to a concept upon which reasonable persons could agree (as cited in Deming, 1986). Otherwise, physicians and insurance companies would continue to fight off unjustified accusations of carelessness and legal battles.

To summarize Deming's thoughts, America expected an ever-rising standard of living. Yet, only if American products became competitive at home and abroad would this happen. The answer was in better quality, design, and productivity through management transformation. The job of management was inseparable from the organization. Deming predicted that the transformation of America would take at least three decades to produce the needed changes. The organizations that would survive would have a long-term commitment to learning and constancy of purpose. Deming demonstrated how some applications of quality principles could add to better living in America. Thus, dependable service simplified life and reduced the cost of living. Quality and dependable performance, however, still required definition in the American future.

Even after the death of W. Edwards Deming in 1994, his passion for quality transformation in business and service has been practiced in successful corporations such as Motorola, IBM, and Ford. Through time and application by various sectors, Deming's management quality ideas acquired the title Total Quality Management (TQM). The American Society for Quality Control (ASQC), which began in 1946 and is still functioning today, was born out of study groups formed at Deming's urging. The ASQC promotes
national and international quality standards to provide effective quality management systems to manufacturing and service industries, encouraging the trade of quality products and services (ASQC, 1996). Locally, the College of DuPage supports a Deming's User Group and seminars are presented at the University of Chicago. Thus, some of his followers, who have embraced his quality philosophy have remained committed to studying and promoting Deming's life work.

As a supporter of Deming, Mary Walton (1986), in The Deming Management Method, echoed the need for transformation in American industry for economic and social survival through Deming's universal philosophy: (1) constancy of purpose, (2) innovation, (3) research, (4) education, and (5) continuous improvement of product and service. In a similar vein, the Deming cycle (Deming, 1986), a model which analyzed processes, led to continual improvement of methods and procedures. When applied to a process, this cycle assisted in finding causes detected by statistical indications. Likewise, the Deming Chain Reaction (Deming, 1986) illustrated observations of natural and inevitable results when improvement of quality principles in an organization were practiced. According to Shewhart (1939), these results, including quality control by reduction in variation in a process, led to decreased costs due to less rework, fewer mistakes, and better use of time (as cited in Walton, 1986). Consequently, productivity improved with better quality and lower prices. In turn, more jobs were provided in the sustained business. Although quality improvement results were favorable to employees, Walton reinforced Deming's beliefs that unemployment, mainly created by management and a small portion due to persons temperamentally unsuited for
work, will always exist. However, if financial problems occur, the traditional response in business was to eliminate employees to cut costs, which raised unemployment.

Deming's philosophy espoused that education was simple, but it could be powerful. Everyone doing their best in an organization did not improve quality and productivity in systems. The employees needed to know what to do in order to do their best. In learning how to use basic tools for problem solving, employees organized their thoughts and data. Quality improvement tools, which contained some simple statistical methods, included the following data-gathering charts: (1) cause and effects, (2) flow chart, (3) Pareto chart, (4) run (trend) chart, (5) histogram, (6) control chart, and (7) the scatter diagram. These charts enabled employees to analyze work processes and identify causes of existing problems that affected the quality of products and services.

For quality transformation to be successful in America, the country's management philosophy and culture needed conversion from retroactive management to the appreciation of the worker. "Retroactive management" (Walton, 1986, p. 248) reported on people and under-utilized the minds of their employees. To Deming, people were the most important asset of any company, and the failure to understand people has led to the devastation of Western management. America had people and natural resources, whereas Japan had people and no natural resources. However, what has made the difference in Japan's economic success has been management.

Another exponent of Deming's quality philosophy was Andrea Gabor (1990), author of The Man Who Discovered Quality. She gave credence to the idea that Deming's philosophy was still current and operating in industry. Large corporations, such as Xerox,
Ford, GM, and Florida Power and Light, have applied Deming's management theory successfully. The fourteen principles were applied along with (1) trust, (2) teamwork, (3) the scientific theory of variation, and (4) continuous improvement. Creating and synthesizing divergent management ideas into a compelling new philosophy, Deming has played the role of visionary. His ideas are still being utilized and tested.

Gabor viewed Deming's leadership as being "holistic" (p. 14), with a process-oriented management culture harnessing the knowledge and natural initiative of the employees and driving the whole organization to higher standards of excellence and innovation. In a holistic model of quality that led to continuous improvement, all key decision makers were represented in the decision-making process. Deming believed in the intrinsic motivation of mankind in juxtaposition to management policies which often served to demotivate employees. Gabor supported Deming's view that quality was defined by the desires and needs of the customers. The most successful companies created new product innovations for the customers. Subsequently, there was a leap from continual improvement to continual innovation in a whole new product category that the customer had not even contemplated. The leap from continual improvement to innovation was achieved through incremental improvement rather than status quo thinking. The utility of the knowledge and creativity of the employees in the ranks led to innovations in the institution.

In discussing Deming's ideas, Gabor reinforced that the ultimate victim of traditional American management was not the consumer, but the employee whose job was jeopardized by mismanagement and who was often blamed for management's mistakes. An organization with continuous quality improvement made the hourly employee's work more interesting,
satisfying, and usually easier. Because of the understanding of the employee's powerlessness
to change the system without management's good faith placed in them, Deming's quality
improvement was embraced by hourly workers.

According to Gabor, by surrounding himself with psychologists and organizational
behaviorists, Deming was exposed to their thinking and this influenced his quality philosophy.
Deming's philosophy was colored by the human motivation theories of Frederick Herzberg,
Abraham Maslow, and Douglas McGregor, along with his contemporaries, Peter Drucker
and Joseph Juran. Deming's concept to fostering interdepartmental cooperation was most
likely influenced by them.

Deming's criticism of the absence of defects, or zero defects concept rested on the
confusion between the difference in product quality and process quality and was justified by
Gabor. Over a reasonable length of time, the existence of variation does not allow for the
mass production of goods without any defects at all. Thus, focusing on zero defects falsely
indicated that there was no variation which was impossible to eliminate. Subsequently,
organizations would do better to concentrate on constant and continuous improvement rather
than on the unattainable goal of zero defects.

Some criticism has been related to the awarding of the Deming Prize by Japan. The
Deming Prize was instituted by Japan in 1951 to honor him for his contributions to Japan's
economic success. The prize was awarded in recognition of outstanding quality achievements
by individuals and business organizations. Criticism of the Deming Prize was that it could be
counterproductive; where zealots of quality might compete to the detriment of their company
and to self-destruction trying to win the award.
In 1987, American companies began to apply for the Deming Prize, so the U.S. Congress established the Malcolm Baldridge National Quality Award, named after the first Secretary of Commerce for the Reagan administration. At the same time, a National Quality Week was instituted. The real underlying hope was that since quality management ideas had their original roots in the U.S. but bloomed in Japan, they could be repatriated. The present Baldridge Award Committee has continued to be the guardian of quality recognition of organizations and remained an important quality management catalyst of the 1990s (Walton, 1986).

Deming's philosophy has lived on. He has been hailed as the Father of the New Industrial Age and the Founder of the New Economic Era. Some people who worked with Deming have become quality consultants. His Total Quality Management concepts have reached into some governmental agencies such as the Pentagon and certain Veteran's Administration hospitals. Business groups from California to Pennsylvania have sprouted grassroots Deming User's Groups.

Deming has a highly humanistic philosophy, having an optimistic view of mankind and of what working individuals could accomplish if given an opportunity. His principles and values have remained his attraction. It may be possible, through Deming's principles, as they are espoused by government and education, to address social ills.

Joseph M. Juran

A second early proponent of quality was Dr. Joseph M Juran. Just as Deming was summoned to Japan after World War II, a few years later Juran was sought to aid in the
development of Japan's quality improvement. Juran was considered a visionary in the field of quality planning. Basically, he believed that quality was planned. He offered a structured, step-by-step approach to his quality triumvirate which consisted of: (1) quality planning, (2) quality control, and (3) quality improvement. Juran provided an innovative Company Wide Quality Planning concept. In Juran's writings, he identified key elements that were essential to the planning of quality in organizations. Juran's initial thrust, like Deming's, was identifying the customers and their needs. From that starting point grew the establishment of: (1) optimal quality goals, (2) planning processes to meet those goals, (3) along with producing continuing results, and (4) a reduction of errors. Juran's (1988) book Juran on Planning for Quality, was said to provide a roadmap for improved quality through his concepts and tools for improvement of products, performance, and profits.

According to Juran, poor quality products were costing money because they were planned that way. The source of defects in products was primarily within the planning for quality. Thus, America's quality planning process needed to be revised and industries needed to gain mastery over the new process.

In the 1980's, there emerged an awareness of a quality crisis. Juran labeled deficient planning as responsible for the prevailing ineffective products and processes. To prevent the creation of deficient products and processes, Juran proposed his structured approach to the various levels of a company. In addition, his concepts applied to products, be they goods or services. The importance of learning about quality planning stemmed from the cost of poor quality goods and services that resulted in losses and wastes. The costs of poor services and goods have resulted in product liability lawsuits, customer complaints, rework, and disposal
of defective goods. It was possible that 20 to 40 percent of a company's time was spent in rework due to poor quality.

The initial response to this quality awareness by companies was the generation of slogans and exhibits, thinking that these would change behavior. Although quality awareness was heightened, there was little substance or structured process. Exhortations gave the impression that management was "not leading, but cheerleading" (p. 3).

For Juran, quality was defined as "fitness for use" (p. 5). The enlargement of this definition indicated that there were many users and uses. Juran referred to the "spiral of progress in quality" (p. 5). The model demonstrated the continuous upward process in the development of a product, touching various persons inside and outside of the organization. The customer was defined as anyone who is impacted by the processes and product. Juran further differentiated the term customer to include an internal customer - an employee of the organization, and an external customer, anyone outside the organization. Users could be "anyone who carried out positive actions with respect to our product . . . processing, sale or ultimate use" (p. 10). The product could be goods or services. "Goods are physical things, whereas service is work performed for someone else. Most companies produce both" (p. 8).

Juran proposed three basic managerial processes for quality, labeled as the "Juran Trilogy" (p. 11). The three interrelated processes were: (1) quality planning, (2) quality control, and (3) quality improvement. His main focus was quality planning as the initial step toward quality. All quality, according to Juran, was planned, whether one knew this or not. Quality planning provided operating forces with the means of producing products that could
meet customers' needs, whereas operations produced the products. Consequently, if there was rework, it was due to a planned process.

According to Juran, the persons responsible for quality planning have evolved over time. In organizational management before the Taylor system, all planning for operations was performed by operating managers and supervisors. In the early twentieth century, the Taylor system separated planning from execution, leading to the creation of quality specialists, such as quality engineers. Due to the separation of planning from execution, there was a lack of total organizational embracement of quality concepts and tools. But in the second half of the century, Japan assumed the quality leadership of the manufacturing industry. Quality planning was assigned to operating managers and line specialists. Massive training programs were instituted for employees to use quality concepts and tools. Thus, even though the assignment of quality improvement to various persons changed, the list of functions could be transmitted over time.

Juran believed his "quality planning roadmap" (p. 17) applied to all human endeavors. Basically, his roadmap consisted of four steps. The first step was identifying customers to determine their needs, translating those needs into the language of the organization. In response to customer needs, a process was developed to create a product. This process was optimized to produce the product, according to the goals. Lastly, the process was transferred to the operating forces for final production.

Quality planning consisted of a series of planning activities that were joined together by common components of three interlocking elements of "the input, the process, and the output" (p. 17). The model could be visualized through a flow diagram. The interlocking
model began with the input which was any subject matter of quality planning. This was followed by the process, which were actions that led to the output, the result. In quality planning, the last output was the first input for the next series of activities. To record the quality planning information in a very condensed and convenient form, Juran recommended the use of a spreadsheet or matrix during the whole quality planning process. Although the spreadsheet assisted in organizing a systematic approach to planning, it did not provide answers to quality (Juran, 1989).

In addition, according to Juran, every quality planning activity could be viewed through the "triple role concept" (p.17) of the supplier, processor, and customer, in conjunction with the establishment of common units of measurement and means of evaluating quality. The persons who provided the inputs were the suppliers, and the processors were process teams. Lastly, the receivers of the outputs were the customers.

To initiate quality planning in an organization, the needs of the customers are identified. The input, process, and output model, together with the Pareto principle, assisted in identifying important customers. The Pareto Principle would establish that comparatively few customers were of great importance, with a relatively large number of customers being of modest importance, referred to as the useful many. Subsequently, it was most beneficial for an organization to contact the vital few customers in-depth to secure their perception of needs and to review improvement proposals (Juran, 1989). An example of the relatively few but important customers would be the largest purchasers of the product or service. Internally, the useful many were the workforce or the non-supervisory employees in nonprofessional work categories who also may have in-depth knowledge for quality needs.
For Juran, the term customer was far reaching and extensive. On the basis of use or what was done with the product, the customer could be identified as the processor, merchant, or the ultimate user. In essence, the users were the final destination of the product. In addition, the public was a customer because it may be impacted by product safety or damage to the environment. Accordingly, the needs of the public had to be considered.

Since customer needs were ever changing due to the powerful forces in technology, social upheavals, and international conflicts, the identification and fulfillment of customer needs presented a continual challenge to quality planners. Customers had stated needs or real needs that were unstated. Their stated needs were the goods the customers wished to buy, but their real needs were motivated by the customers' fundamental needs, what the service or goods provided, such as food. The real need was for nourishment and pleasant taste. Real needs differed according to cultural patterns. Due to living in various cultural patterns, the view of the product or service differed, and this difference in perception could be troublesome.

Identified needs were best translated into a language of common terms, for the same word could have multiple meanings. According to Juran, industry required precise communication related to quality information. This was best accomplished with numbers. A unit of measure was "a defined amount of some quality feature" (p. 70) that allowed for a quantitative evaluation. For Juran, a sensor was "a method or instrument, which can carry out the evaluation and state the findings in numbers, in terms of the unit of measure" (p. 70). Thus, abstractions were broken down into identifiable realities. Units of measure could be defined for individual elements of the product, technological process, or service to summarize
and express quality for entire departments. Once a system of measurement was established, a common language existed to facilitate quality planning, control, and improvement.

According to Juran, to evaluate quality in terms of the numerical unit of measure was accomplished through a sensor. A sensor detected the presence and the intensity of certain phenomena and converted the sensed knowledge into information. The sensor could be a person, feature of a product, economic indicator, report, laboratory test model, or summary. The sensor's purpose was to provide an early warning of problems and to evaluate the process capability of the plan. The precision of the sensor was its ability to reproduce its results on repeated tests. The more critical the quality feature, the greater the need to evaluate the sensor's precision. Human sensors were known for serious biases and source of errors. Subsequently, the design for human sensing needed to minimize this type of bias.

As a sensor, the workforce could detect conditions in the workplace. However, if their reports were dismissed or workers learned their reward for being sensors resulted in unwarranted blame, they might stop reporting the condition. An example of this employee reaction could occur in the hospital where nurses would not report medication errors in fear of reprisals and negative annual performance appraisals. A large number of medication errors might be built into a system which was management controllable, not worker controllable.

After identifying the customer needs for the development of a product, the next step in Juran's quality planning was to achieve product goals through collectively defining product features and optimizing the product design. The optimum product design was the result that met the needs of the customer and suppliers while minimizing their combined costs. Goals are an important part of the corporate culture. Even though goals were set, they might not be
met. If goals are poorly chosen, planning would target the wrong goals, resulting in success in conformance but not fitness for use, i.e., quality. Quality goals aimed at an achievement of quality through the expenditure of energy and effort. Quality goals varied in organizations and over time. As a result, things might be done right, but the right things were not done.

A corporate quality goal could be zero defects. However, both Deming and Juran agreed that the zero defects concept was questionable. It had two meanings: (1) as a goal where the product was free from defects, and (2) as a slogan to motivate and drive the improvement of quality. The defect-free product has been the vision of a long-term goal in continuous quality improvement, but the zero defect goal in a product is often not attainable. As a slogan, zero defects might gather momentum to move toward quality. Nevertheless, what really achieved quality improvement in an organization was the substance behind the drive, not the exhorting of the workforce.

After goals were determined the process was optimized. Juran's concept of optimum provided a product that responded to the needs of the multiple customers who were in contact with the product. Knowledge of the customers' needs was often sufficient to enable the suppliers to meet those needs and attain the optimal goal. However, for optimization, there was a balancing of various needs, including the company's, departments', suppliers', and customers', who share experiences and expertise. Optimization was achieved through teamwork.

In the next step of Juran's quality planning, a process was developed that produced products to meet the goals. A process was defined as "a systematic series of actions directed to the achievement of a goal" (p. 169). All processes had an inherent capability for
performance which could be assessed with data collection and analysis. Therefore, the evaluation of process capability was a valuable tool for quality planning and operations. Process planning provided the operating forces with the means to meet their goals. Lastly, after the process plan was in place, it was transferred to operations. To Juran, the key in achieving gains in process planning was through teamwork, which could be in the form of design review and joint planning.

Quality planning required a standardized, quantitative evaluation of process capability, that is a measurement. For example, the automobile industry used Statistical Process Control (SPC). Data collection and analysis under operating conditions were the main methods for evaluating process capability. A variation analysis of the process and a simple work process matrix could determine the difference between process performance and capability.

Juran, similar to Deming, referred to the theory of variation, the bead experiment, and Shewhart’s control chart within the discussion of quality improvement. All human and non-human processes have displayed variability, which is critical to process planning and can be measured. Juran used the bowl of beads demonstration to illustrate variability. The process of sorting out beads remained the same, but the sample of beads varied. Thus, variability existed even though the process remained the same. Demonstrating how many units of a product existed at each value of measurement, variability could be measured through a frequency distribution. However, the most common measurement was the standard deviation. For example, the automotive industry arbitrarily adopted the rule that process capability is equal
to 6 standard deviations. These universal measures enhanced communication and quantitative goal setting by quality planners.

The environment affects human responses of workers through stressors, both on and off the job. In addition, by nature human beings are error prone and varied in capabilities. Human errors could be due to factors involving memory, perception, and motion capabilities. So, if the dominant variable influencing the process was the worker, then quality depended upon their skills. Thus, for Juran planning for quality would include: (1) aptitude testing of workers, (2) training and certification, (3) quality rating of workers, and (4) the reduction of worker errors.

Juran referred to the use of Shewhart control charts as a way of planning process controls. Process control activities should be followed by a systematic sequence called feedback. Feedback was the input from a customer relative to the impact of the product. With this in mind, it was possible to put workers in a state of self-control if they knew: (1) their actual performance, (2) the target performance, and (3) how to adjust the process to meet it. Planning for critical processes that required freedom from human error included processes that posed serious danger to human life, health, and environment. These critical processes should have the best safeguards, the most current technology, and educated and licensed personnel.

Juran advanced his quality planning from intermediate and interdepartmental levels to the concept of Company Wide Quality Management (CWQM). CWQM, a "systematic approach for setting and meeting quality goals throughout the company" (p. 244) was geared for upper management, including corporate officers. CWQM was more than just raising
quality awareness; upper managers became personally involved in establishing corporate quality policies, goals, plans, and controls. The chairman of CWQM was usually the company president.

The establishment of CWQM might be perceived as removing some autonomy from departments and as corporate interference. Consequently, there might be a cultural resistance based upon attitudes, beliefs, habits, and rituals. Since prior cultural patterns were ingrained to the organization, they were protected. Any changes might be perceived as threats to the stability of the pattern and the well-being of its members (Juran, 1989).

To introduce change in organizational culture, Juran offered the following ground rules: (1) provide participation time and no surprises; (2) start small; (3) choose the right year; (4) write clear proposals; (5) work with leaders of the culture; (6) treat people with dignity; (7) understand the other's position; and (8) look at alternatives.

Juran advocated the use of teams in quality endeavors, as did Deming. Team responsibility could increase communication and trust. A coordinator organized a team of relevant interdepartmental employees to share their knowledge and experiences. Interdepartmental teams gave rise to multidirectional discussion, input, and ideas. When individuals collectively make contributions, "the whole is greater than the sum of the parts . . . 1+1= 3" (p. 53). Communication and sharing within the team was done with sincerity and trust. The whole company, itself, served as a processor team and smaller processor teams existed throughout the organization. A processor team was defined as "any organizational unit consisting (of two or more persons) that carries out a prescribed process" (p. 273). Consequently, each processor team could differ in their level of company hierarchy and
functional responsibilities. Team participation had mixed results and acceptance in organizations. The use of joint teams consisting of exempt and non-exempt people was still in the experimental stage.

Juran combined the three interlocking elements for quality planning consisting of (1) input, (2) process, and (3) output, with the three quality roles of (1) customer, (2) processor, and (3) supplier into a consolidated model called the "TRIPROL diagram" (p. 274). Because each process was unique due to numerous variables, the diagram offered a framework for logically analyzing the quality planning format of organizations. The TRIPROL analysis was the basis for the departmental quality planning by teams.

Who actually performs the TRIPROL analysis could be decided based upon advantages and disadvantages. Companies were shifting more of the quality ownership from management to line personnel, while maintaining managerial teams. The disadvantage to teams was the increase in time spent in teamwork and the imposition of the team's responsibility onto a person's regular workload. The TRIPROL analysis indicated that it was important to obtain inputs from the workforce. Workforce participation contributed to planning due to the workers' knowledge of the job. Many workers wished to contribute, as this increased their morale and sense of ownership. Workers could participate as individuals or, through quality circles, as team members.

Education in organization-wide quality planning was accomplished through in-house and open seminars to share: (1) common thought processes, (2) structural methodology, and (3) universal concepts, tools and language. Training at all levels was necessary to create the
infrastructure to produce the new approach. Methods included: (1) videos, (2) workbooks, and (3) manuals for facilitators and instructors.

Lastly, Juran offered an evaluation strategy called "lessons learned" (p. 306) to quality planners. It was a key concept for introducing a structured approach to quality planning. Acting as a database source for quality planners, it was a catch-all term describing what was learned from experience. Lessons learned summarized prior experience into repetitive-use aides taking the form of data banks, checklists, countdowns, and needed breakthrough lists. To be effective, it required special efforts and organization. The work was done now so that the benefits could be recognized later. Retrospective analysis was a form of lessons learned, being derived from the analysis of prior cycles of operation. If the process was complex, the retrospective analysis required a team of managers to analyze it and propose remedies.

Juran, who was invited to Japan in the 1950s, was given extensive credit for helping shape the American approach to quality management, but did not receive the Deming Award until 1981. Many Japanese gave much credit to Juran for elevating quality control to a management tool, and to Deming's for his emphasis on the importance of the manager's role (Gabor 1990).

Philip B. Crosby

Just as Deming had fourteen points that could lead to quality in the business sector, Philip Crosby proposed his fourteen-step quality program. However, unlike Deming and Juran, he is the prime advocate of the zero defects systems for products and services. Crosby
(1980), in Quality is Free, proposed pragmatic approaches and succinct ideas to produce quality results in the manufacturing and service industries. To him, quality was not only free, but profitable as well.

Crosby referred to the art of quality and the cultural revolution within companies. He recommended the establishment of a quality program through four components: (1) management participation and attitude, (2) professional quality management, (3) original programs, and (4) recognition. According to Crosby, quality was not goodness or relative worth, but conformance to requirements and measured in cold, hard cash. Quality was also measured by the cost of quality which was the expense of non-conformance to requirements. Expressing the definition of quality through measurement was important because people wanted to see results. Quality management was a systematic approach to ensure that organized activities unfolded as planned, focusing on prevention of problems by influencing attitudes and creating controls.

Crosby likened the management of families to business operations. To him, family management was the most difficult of jobs. Without any formal screening as performed in businesses, each individual family member was an unknown quantity entering the family. Members of the family were a given and could not be fired. Neither family managers nor family members had received previous training. Like any other institution, the family was involved in economics, education, security, and communication.

Similarly to Juran, Crosby was fervent in saying that quality was not by chance, but was planned and systematic. Crosby developed a "Quality Management Maturity Grid" (p. 32). This grid indicated stages of growth in quality for businesses. Measurement categories
related to quality were: (1) management's understanding and attitude, (2) the status of the organization, (3) problem handling, (4) the cost of quality as the percentage of sales, (5) quality improvement actions, and (6) the summation of company quality posture. In turn, these categories of measurement were evaluated according to five stages of quality management development which were: (1) uncertainty, (2) awakening, (3) enlightenment, (4) wisdom, and (5) certainty. The grid was used to compare the measurement of different operations and was rated by three objective individuals such as a quality manager, general manager, and a staff member. The grid served as an assessment tool of the company or its operations. Lastly, the grid could also be a tool for motivating involvement in the quality program.

Crosby offered a practical method to establish a quality improvement program. His quality improvement program consisted of fourteen steps.

1. Step one is top management commitment. Specific thinking needed to be generated by management. Quality was a means to meeting requirements. In addition, zero defects in any product or service was possible through dedicated work and continuous exercise of personal integrity. By preventing defects, one could get rich. Good things only happen when they are planned, while bad things happen on their own.

2. In step two, a quality improvement team was formed. Representative members from each department were given the tools to enable them to take any necessary actions.

3. Step three was quality measurement, which allowed people the opportunity to identify ways to measure their work. Measurement indicated feasible and actual improvement, along with remedial actions.
4. Calculating the cost of quality evaluation, which was step four, could be performed by the comptroller. With information on what composed the cost of quality, the comptroller could indicate where it was necessary to take corrective action.

5. This fifth step might be the most important step of the fourteen, because quality awareness enables corrective actions and error causes to be removed. Quality awareness was provided through the training of employees, communication, and sharing process. Thus, the process of change and a quality attitude could occur.

6. In step six, as problems surfaced, the habit of identifying and correcting problems were developed. Inspection, audit, self-evaluation, and the workforce itself promoted the corrective actions.

7. A formal Zero Defects Program was conducted through an Ad Hoc Committee in step seven. The Zero Defects Program was a standard for management and for performance. Although people tended to accept error in their work, it is unacceptable in personal life. Because most human error was caused by lack of attention, not knowledge, a conscious effort should be made to do the job right the first time.

8. Step eight included supervisor and staff training and education. A Zero Defects debriefing occurred at least four weeks prior to starting day for the program.

9. To reinforce in the minds of employees the importance of Zero Defects, a Zero Defects Day was instituted for step nine. This formal announcement of beginning a new corporate way of life set the tone for all employees.
10. After Zero Defects Day, pledges and commitments needed to be placed into action. The supervisor and the employees determined goals for thirty, sixty, and ninety days, focusing on specific tasks to be accomplished in step ten.

11. Step eleven promoted identifying error and cause removal. Employees listed on one page any problems preventing them from error-free work. The problem was assigned to the appropriate group, which provided an acknowledged statement within twenty-four hours. This quick response developed trust and communication.

12. Because people appreciated recognition, non-financial recognition was provided to the employees who fulfilled the goals or performed outstanding acts in step twelve. Public recognition would inform colleagues that the problem had been solved and that management appreciated it.

13. In step thirteen Quality Councils formed with quality professionals and team chairpersons who communicated the progress of the quality program. The councils allowed the free exchange of ideas with other members of management in an informal manner.

14. After the goals of the initial quality program were reached, step fourteen stated that the repetition of the quality program occurred with new team representatives. The original Zero Defects Day remained recognized as an anniversary day, marking the ongoing quality program as a way of organizational life.

Gabor (1990) said that Crosby was the most controversial of the leading quality experts. Some persons perceived Crosby as conveying the importance of quality, but he did not define a theoretical framework to achieve it. Although Crosby's cost of quality sounded great, it could actually deflect management's attention from the focus of improvement. In
addition, his idea of attaining zero defects in a product was inspection, which was antithetical to the concepts of Deming. Only after Deming popularized the importance of variation, Crosby included it into his seminars. Despite Crosby's controversial image, he motivated the masses and the business industry found his ideas appealing because he talked their language, whereas Deming and Juran did not.

Summarizing the three early quality proponents, Deming's fourteen points became a theoretical framework of quality improvement for management, espousing both the science and the art of the Quality Movement. He advocated the people side of the Quality Movement and the statistical components of a quality transformation. Juran upheld the customer focus and developed it into internal and external perspectives, along with a sense of structure for quality planning. In addition, he remained very process oriented, utilizing quality tools. Lastly, Crosby championed zero defects. His prime concern was the financial cost of poor quality and, to him, quality was free. Thus, the three early proponents of the Quality Movement laid the groundwork for other quality advocates to follow.

In chapter II, the writer will examine how contemporary quality proponents transfer the Quality Movement concepts into the 1990s. These successors of the early quality proponents extend the original concepts to added sectors of business, to human services, and to individuals. Thus, the hunger for quality was sustained in work and life.
CHAPTER II
THE GROWTH OF THE AMERICAN QUALITY MOVEMENT
INTO HUMAN RESOURCES

The actual growth of the Quality Movement in American manufacturing occurred in the 1980s, moving to the service sector in the latter portion of that decade. In addition, there was a heightening awareness of personal and organizational development. Within the Quality Movement, employees were increasingly being valued as human resources with abilities and mind power to contribute to the organization. Thus, the meaning of quality could touch individuals in their personal and organizational lives.

The Quality Movement has been a continuum ranging from the technical or scientific component at one end to the social or human side at the other end. In the 1950s, Deming's philosophy addressed both components, yet most corporations emphasized the technical side. However, in the late eighties there was a greater shift toward the human resource side of the continuum. At about this time, the Quality Movement entered the service sector with the assistance of the contemporary proponents.

This chapter discusses the contemporary proponents as they amplify the human resource side of the Quality Movement. Covey focuses on individual personal growth and his ideas quickly transfer to organizations desiring quality. Senge's perspective begins by viewing the whole organization as a learning organization composed of individual learners. Both Townsend and Albrecht concentrate on the human side in the service sector, with Albrecht
predicting greater focus on the customer in the future. Lastly, the chapter introduces some peripheral influences on the Quality Movement from the 1940s through the 1990s. This includes the emerging discipline of Organizational Development which bestows greater depth to the Quality Movement because of its human resource focal point.

Contemporary Quality Proponents

Stephen Covey

By focusing on the individual's self-growth and effectiveness, Stephen Covey's (1989) *The Seven Habits of Highly Effective People* adds to the human dimension of the Quality Movement. Covey's theory of continuous quality improvement encompasses a set of ideas: (1) the Seven Habits and underlying principles; (2) the Production/Production Capability Balance; and (3) the Proactive model. His writing converges on individual growth, reaching from the inside of the individual and extending to the outside environment, his inside-outside approach. In addition, he strongly extends his principle-centered leadership to personal, familial, and organizational living.

Character Ethic versus Personality Ethic

According to Covey, achieving successful living through self-improvement has a historical background which substantiates his philosophy of principle-centered leadership. His in-depth historical study of the foundation for American success beginning with 1776, indicates that the first 150 years could be portrayed as dominated by the Character Ethic. This basis for successful living includes principles, integrity and the Golden Rule. A person with a
Character Ethic is trusted and works effectively with others. Thus, true success and happiness rests in learning and integrating these principles into one's basic character.

Covey discovered that after World War I, there was a shift from the Character Ethic to the Personality Ethic as the foundation for success. With the Personality Ethic, success focuses on human and public relations techniques, including the manipulation of people. It is a quick-fix approach to personal changes with short-term thinking.

Covey classifies both the Character Ethic and the Personally Ethic as social paradigms. He defines a paradigm as "the way we 'see' the world—not in terms of our visual sense of sight, but in terms of perceiving, understanding, and interpreting" (p. 23). Paradigms are sources of an individual's attitudes, behaviors, and interrelationships with others.

Understanding that each person has unique perceptions and paradigms enhances interpersonal relationships. Because each person sees the world through his/her own perceptions and paradigms, the individual believes one's view is objective. However, facts do exist outside of one's perceptions. Thus, two different persons can look at the same fact, acknowledging it as a fact, yet each person's interpretation of it represents different prior experiences. Therefore, in interpersonal relationships, it behooves each person to consider other viewpoints and discern their social paradigm as emanating from a Character or Personality Ethic.

To Covey, Character Ethic is a stronger social paradigm than Personality Ethic because Character Ethic is founded on the principles which govern human effectiveness. Principles are an objective reality, whereas our paradigms are subjective. Principles differ from practices and values. Practices may not work in every situation, and values act as a map
but can violate principles. However, principles guide human conduct and have enduring permanent value. Valuing correct principles elicits truth, a knowledge of things as they are. As fundamental truths with universal application, principles are internalized into habits, empowering people.

Thus, the historical Character Ethic is principle centered and serves as a foundation for Covey's principle-centered leadership and inside-out approach for personal and organizational effectiveness. The inside-out approach starts with one's own perceptions, paradigm, character, and motives. Personal growth is a continuous process of renewal based upon principles that lead to private victory and then public victory within a continuous upward spiral of growth. This process leads to progressively higher forms of responsible independence and effective interdependence. Covey's Habits of Effectiveness are the driving forces that enable the upward spiral of growth.

**Habit and Effectiveness**

According to Covey, a habit is "the intersection of knowledge, skill and desire" (p. 47) wherein knowledge is the theory behind the action, skill is the ability of doing the action, while desire is the motivation to perform the action. An individual balances all three, increasing character strength and the effectiveness of life. Habits are powerful factors in one's life, being consistent and often unconscious patterns. Habits constantly express one's character, producing our effectiveness and ineffectiveness. Common ineffective habitual tendencies are: (1) procrastination, (2) impatience, (3) fault finding, and (4) selfishness. Although ineffective habits require tremendous effort to break, a person is not his or her habits, so it is possible to change.
Covey's Seven Habits, like the natural laws of human growth and development, provide an incremental, sequential, and highly integrated approach to the development of personal and interpersonal effectiveness. The seven habits of effective people are believed to steer them through the maturity continuum from dependence to independence to interdependence. At the level of dependence, an individual blames someone else for causing problems, whereas an independent person assumes responsibility for one's own actions. Lastly, interdependence implies cooperation among people, creating greater successes by combining one's efforts with those of others.

The Seven Habits Paradigm Framework

To achieve personal growth and continuous improvement, Covey offers a three tiered model entitled the "Seven Habits Paradigm" (p. 53). This holistic perspective incorporates the three levels of maturity with the transitional Seven Habits. These habits are supported by principles, enabling personal change and growth. At the base of the model is dependence. Achieving private victory is accomplished through the first three habits: (1) be proactive, (2) begin with the end in mind, and (3) put first things first. These three habits involve principles of personal vision, leadership, and management. Having mastered the first three habits and attained private victory, one progresses to the level of independence and the second set of habits: (1) seek first to understand, then to be understood, (2) think win/win, and (3) synergize. At this point, public victory and the highest maturity level, interdependence, are realized. Principles of interpersonal leadership, empathetic communication, and creative cooperation come into play. Encompassing sequential personal growth and change is the seventh and final habit sharpen the saw, the habit of balanced self-renewal. A balancing
renewal process empowers the individual to progress through an upward spiral of continuous improvement.

The Production/Production Capability Balance

Covey maintains the Seven Habits are based on a paradigm of effectiveness in harmony with the principle of the "Production/Production Capability Balance" (p. 54) and can be attained by the individual, family, or organization. In reference to the terms Production/Production Capability (P/PC), P stands for Production of desired results. PC stands for Production Capability, the ability that produces the results. This balance affects three assets in life: (1) physical, (2) financial, and (3) human. For example, a person's ability to earn a living (P) hinges upon continually investing in one's own production capability (PC). Thus, to Covey, economic security does not lie in one's job, but in one's power to produce; that is to think, learn, and create. Consequently, true financial independence is not having wealth, but having the power to produce it.

In the human domain, the P/PC Balance is most important. When family members are more concerned about their own individual needs versus the preservation of family relationships, the richness between them deteriorates. Subsequently, the asset of family strengths that can produce desired results is lost.

The P and P/C principles are also applicable to organizational effectiveness. Increasing the balance of production of desired results and production capability is relevant, especially as it applies to employees. The key to improving production capability is treating the employee as the organization wishes to treat its best customer. The organization can
easily buy the hand and back of an employee, but not the heart and mind. Most importantly, it is the mind that contains the capacity for creativity, ingenuity, and resourcefulness.

Habit 1: Be Proactive

According to Covey, the P/PC Balance promotes his Seven Habits of Effectiveness. To achieve habits of effectiveness, proactivity is needed. Covey believes that a person is naturally proactive. The "Proactive model" (p. 71) addresses stimulus and the freedom to choose a response. This model involves: (1) self-awareness, (2) imagination, (3) conscience, and (4) independent will. Covey cites some great leaders as role models for proactivity, such as Gandhi and his thinking that no one can take away one's self-respect. Proactive persons are value driven, read reality, and know what is needed.

Covey creates a visual model entitled the "Circle of Concern/Circle of Influence" (p. 81). This model determines the concerns over which a person has control, where one focuses one's time and energy and one's degree of proactivity. In his model, a large circle, the Circle of Concern contains all personal and global concerns. Within the large circle is the Circle of Influence, containing problems over which a person has direct or indirect control. Thus, a proactive individual in harmony with the P/PC Balance and the Seven Habits focuses on enlarging the inner Circle of Influence. One way a person increases the Circle of Influence is by working with other people as a complementary team. In contrast, a reactive person works on the outer portion of the Circle of Concern, focusing on weaknesses of others, past realities, and circumstances over which there is no control, instead of accepting these conditions and moving forward. In such a case, negative energy and neglect in the areas in which a person has no control causes the Circle of Influence to become smaller.
For a proactive person, the heart of the Circle of Influence is integrity, which is keeping commitments to oneself and others. This requires an integrated character, a wholeness of self with life. Integrity is the essence and clearest manifestation of our proactivity and of developing habits of effectiveness. Through the ordinary and extra ordinary events of daily life, an individual develops proactivity. Subsequently, an individual is responsible for one's own effectiveness, happiness, and, ultimately, their own circumstances.

Habit 2: Begin with the End in Mind

Covey's second habit for effectiveness is to "begin with the end in mind" (p. 97). He employs the thought of the end of a person's life as a frame of reference. With this thought, everything else is examined to determine what really matters. Each day of life contributes, in a meaningful way, to the vision of one's life as a whole.

To begin with the end in mind is based on the principle that "all things are created twice" (p. 99). First, there is a mental creation and second the physical creation, both generated by design or default. Default prevails by empowering other people, the environment, or situations to shape one's life. However, the unique human capacities of self-awareness, imagination, and conscience enable individuals to examine the creations and take charge of them.

On the basis of the principle of first and second creation, Covey distinguishes between leadership and management as these apply to both the personal and organizational realms. Having the end in mind within the first creation is the basis of leadership and achieving self-mastery, purpose, vision, and direction. Once leadership is established, then management
becomes the second creation, concentrating on the outcome and the best methods to achieve the vision and goals. Both leadership and management are dependent upon one another.

According to Covey, to begin with the end in mind and to demonstrate leadership means having a personal mission statement. A personal mission statement focuses on one's vision, goals, and roles, giving structure and an organized direction. Each mission statement expresses the uniqueness of the individual's unchanging core of values. Writing a personal mission statement commences with a vision and values that are in the Circle of Influence.

Each person's Circle of Influence has a core of paradigms affecting everyday life. Some of the centers of one's life are: spouse, family, money, work, possessions, pleasure, friends or enemies, church, self-centeredness, and principle-centeredness. The self is the most common center, however selfishness violates the values of most people. Hence, one needs to identify one's centers to determine how they affect one's personal effectiveness, and their place in one's mission statement.

To Covey, understanding the linkage of the Center of Influence, the mission statement, and the four life support factors of (1) security, (2) guidance, (3) wisdom, and (4) power promotes a well-balanced individual. Whatever is at the center of one's life will be the source of the person's security, guidance, wisdom, and power. The four life support factors are developed in various degrees and underpin all dimensions of life. Security indicates one's sense of worth, or identity, and is an emotional anchor. Guidance is direction in life, whereas wisdom is a gestalt perspective on life. Lastly, power is the capacity to act and the ability to cultivate higher and more effective habits. If one's Center of Influence is principle-centered, there is a solid foundation on which to develop the four life support factors. Because
principles are deep fundamental truths, one's security comes from knowing they do not change. Wisdom and guidance result in a correct plan for life. Finally, the source of personal power stems from a proactive individual living a principle-centered life. Thus, an individual can align one's centers of life with principles. Understanding the integration of these components enables a person to begin with the end in mind and write a personal mission statement.

The value of writing a mission statement also applies to families, and organizations. Because the mission statement is written by the family members, it defines the family's purpose, shared visions, and values. Additionally, in an organization, the a mission statement is developed and written with the employees to encourage commitment and a team culture. In general, the mission statement serves as the framework for the thinking and governing of the family and organization. This alignment of vision, mission, and values fosters continuous improvement.

Habit 3: Put First Things First

To begin with the end in mind provides the structure for Covey's third habit, "putting first things first" (p. 48), which is attained through principles of personal management. Habit three actualizes the mental creation of a principle-centered person into a physical creation and empowers the individual's fulfillment through being the creator. Therefore, the ability to manage well influences the quality and the existence of the physical creation. Effective self-management is possible through the human endowment of independent will and integrity. Personal integrity, which is honor within oneself, assists in measuring the development of
one's independent will in daily life. Effective self-management organizes and executes priorities, deals with relationships, and accomplishes desired results.

With the fulfillment of the first three habits, private victory carries a person from the dependent level to independent growth, enabling the realization of interdependence. Interdependence is the ultimate goal and a choice to build productive relationships with others. A relationship is first built from the inside with one's character and Circle of Influence. Then it is a person's choice to venture beyond oneself to become interdependent, nurture productive relationships, and create synergy through open communication.

According to Covey, developing relationships and interdependence requires trust. When trust is incorporated into a relationship, people have a sense of safety and of emotional reserve because the underpinnings of trust are integrity and honesty. In turn, trust increases and is dependable. When mistakes occur, the trust level and emotional reserve compensate for them. With high trust, communication is fluent, instant, and effective. The reverse occurs with disrespect, threatening or betraying another's trust, and taxing the emotional reserve. Communication becomes guarded and tension mounts. Playing politics and protecting one's self become high priorities. To establish sound relationships, expectations should be clarified to support communication and trust.

Habit 4: Think Win/Win

When one progresses from independence to interdependence, a person assumes a leadership role, influencing others. The habit of effective interpersonal leadership is Covey's fourth habit: "think win/win" (p. 206). This frame of mind constantly seeks mutual benefit in all human interactions. When a human interaction occurs, two common responses are (1)
having one's own way (win/lose) or (2) none (lose/lose). However, there is a third alternative: a win/win solution, a search for a better way, not yours or mine. Because this agreement is a better and higher way, it is mutually beneficial and satisfying. Success is not accomplished at the expense of others. If a solution benefiting both cannot be found, then there is an agreement to disagree. However, any agreement means very little without the character and relationship to sustain it in spirit.

Covey gives an example of a win/lose situation in the academic world. Educational grades are of social value, influencing possible social opportunities for students. With the use of a normal distribution curve for grades, the value of the individual student is based upon extrinsic comparison and not on intrinsic value. Thus, competition, not a sense of cooperation, rests at the heart of our educational process. Covey believes that educators can establish grading systems based on an individual's performance in the context of agreed upon criteria, encouraging students to cooperate and help each other learn.

**Habit 5: Seek First to Understand, Then to Be Understood**

The fifth effective habit is to "seek first to understand, then to be understood" (p. 237), namely empathic listening. This is the key to effective interpersonal communication. Covey points out that communication is the most important skill in life. However, one's behavior is more meaningful than verbal communication because actions flow naturally from one's character and that is how others experience a person. An individual's character is constantly radiating and communicating. So, if a person's private behavior is incongruent with one's public behavior, a sense of mistrust in sharing opinions, experiences, and feelings come to exist.
Through empathic listening, one listens with the intent to understand rather than to reply. The nature of empathic listening is fully understanding another person emotionally and intellectually by focusing on the deep communication of that human soul. According to Covey, touching the soul of another human being by seeing life through the other's eyes is to walk on holy ground. The skill of empathic listening is based on the character of an individual and inspires openness and trust. The Greeks have a philosophy: "ethos, pathos, and logos" (p. 255) -- first your character, next your relationship, and then logic. Covey believes this is the essence of seeking first to understand, then to be understood.

Organizationally, the fifth habit of empathetic listening is applicable to understanding the needs of customers and employees. In organizations, the human element is as important as the financial and technical elements. Listening to customers and employees can save money, time, and energy. In deeply understanding each other on a personal and organizational level, the opportunity for creative solutions and viable alternatives arises. Thus, our differences become stepping stones to synergy.

Habit 6: Synergize

Covey's initial five habits are the foundation for the sixth habit, synergize. Synergy "means that the whole is greater than the sum of its parts . . . one plus one equals three or more" (p. 263). As a unifying interaction among persons, synergy creates bonding and mutual respect due to high trust. In turn, high trust feeds the synergy. Because of the unknown path that synergy can lead, a creative process transpires with a spirit of adventure. Once people experience synergy, they realize its capacity for mind expansion. In synergy, people value the differences in one another, resulting in teamwork.
Being catalytic, unifying, and releasing powers within people, synergy is the essence of principle-centered leadership on the personal, familial, and organizational strata. According to Covey, "creating a synergistic culture . . . is the essence of the power in the Japanese approach to business which changed the world marketplace" (p. 283). When an organization applies this synergy theory, new goals are created and the whole organization progresses. In creating a synergistic culture, people are empowered by new thinking and opportunities.

In an educational organization, some of the most rewarding classes border on the edge of chaos. With synergy, the educator and students are ready and open to the principle of the whole being greater than the sum of the parts. Providing a safe environment, the educator allows for an open exchange of ideas, creativity, and a synergistic charge in the atmosphere. Experiencing synergy in the classroom is more powerful than just reading about it, because something new is produced.

For Covey, a societal example of synergy is the family. Synergy starts in procreation and is perpetuated through the development of the family. Synergy continues when family members value and respect each other's differences, balancing strengths and weaknesses. In the family the social, mental, and emotional differences of each member are a source of creating an environment that is truly fulfilling for each person, nurturing self-worth and the opportunity to achieve interdependence.

Therefore, synergistic communication embodies trust, opening one's mind and heart to new possibilities. All parties gain greater insight, mutual learning, and growth. Unfortunately, many persons never fully broach family or other social synergy. Thus, possibly effective people live with unused potential.
Habit 7: Sharpen the Saw

Adopting the second set of habits—think win/win, seek first to understand, then to be understood, and synergize,—results in public victory and interdependence. These lead to Covey's seventh and last habit, which encompasses the previous six habits. Covey calls the last habit, "sharpen the saw" (p. 289), the continuous self-renewal process or the idea of continuous improvement.

Covey believes in a continuously balancing self-renewal process in four dimensions of human nature: (1) the physical, (2) the spiritual, (3) the mental, and (4) the social/emotional. The seventh habit implies that there is a daily renewal in all four human elements. The physical element is renewed through exercise, nutrition, and stress management. The mental element improves through education, visualizing, and planning. The spiritual dimension is regenerated through value clarification, commitment, and meditation. Lastly, the social and emotional elements are revitalized through service, empathy, synergy, and intrinsic security.

The renewal process encompasses the integration of the four human dimensions, the six habits, and principles. The physical, spiritual, and mental dimensions are related to habits one, two, and three, centering on the principles of personal vision, leadership, and management. Lastly, the social or emotional dimension is based on habits four, five, and six, centering on the principles of interpersonal leadership, empathic communication, and creative cooperation.

According to Covey, the renewal process including the four human dimensions and the Seven Habits is analogous in organizations. In an organization, the physical component is
understood in economic terms, while the spiritual element comprises meaning through purpose, contribution, and integrity. The mental or psychological dimension encompasses the recognition, development, and use of a person's talent in the organization. How people are treated involves human relations, addressing the social/emotional component. Covey believes this renewal process creates continuous organizational improvement, which has been the hallmark of Total Quality Management.

Covey and Total Quality Management

To conclude, Covey's contribution to the Quality Movement lies on his vision of personal effectiveness and success through the application of his Seven Habits, an inside-out approach and principle-centered leadership. His ideas apply to families and organizations. Covey agrees with Deming's TQM philosophy of valuing individuals, the importance of education, and utilization of human resources in organizations. Covey believes that a synergistic organizational culture is related to Japan's successful quality improvement endeavors. According to Covey, correct principles are natural laws and that God is the source of natural laws which guide the conscience. He adds a spiritual tone to the Quality Movement by addressing the soul. His spiritual tone is reflected in his reference to the words of Teilhard de Chardin, a Jesuit priest, "We are not human beings having a spiritual experience. We are spiritual beings having a human experience" (p. 319). Moreover, Covey adds depth to the Quality Movement by converging on deep seated principles and values in individuals, families, and organizations. Thus, Covey adds a qualitative perspective to the Quality Movement, the quality of life.
Covey's work has remained of current interest, due to a sensed need for quality in family and work lives. His *Seven Habits for Highly Effective People* has been applied to whole communities of people. For example, in the past the Seven Habits have been taught to shipbuilding employees and the Oneida Indian community in Wisconsin. In 1996, Covey's ideas have been presented to residents of Columbus, Indiana (Nathan and Tyler, 1996). Although some individuals and organizations are pursuing Covey's philosophy to attain a quality life, he admits that his work is visionary, and his Seven Habits for effectiveness are ideal aspirations.

**Peter Senge**

In *The Fifth Discipline*, Peter Senge (1994) lends a new organizational perspective to the human resource component of the Quality Movement with his concept of the learning organization composed of individuals as learners. His learning organization is achieved through continuous improvement and the application of the five disciplines. Each of the five disciplines is a body of ideas and techniques to be studied, mastered, and practiced. In developing the learning organization's ideas and practices, Senge creates an intellectually challenging set of tools and a base of concepts for an effective organization. These tools and concepts form his five disciplines: (1) systems thinking, (2) mental models, (3) personal mastery, (4) shared vision, and (5) team learning.

According to Senge, the learning organization is an organizational fad for the 1990s. Consequently, his learning organization will follow the intrinsic dynamics of the fleeting life cycle of a fad. A fad becomes popular, plateaus, and then declines, even if the zealots of the
new fad push for its continuation. Still, it is important to analyze the events of the fad's life cycle, discovering the reason for its decline and if any ideas survive its reign. He predicts that within the next few years the flurry over current fads such as learning organizations, reengineering, and redesign will subside. Most likely, a new idea will emerge attempting to solve organizational problems. Although new ideas are webbed in the dynamics of the fad cycle, some new ideas, such as the learning organization, may survive beyond the craze itself. An example of an organizational proposal experiencing the life cycle of a fad is the current Total Quality Management (TQM). In Senge's opinion, Total Quality Management has been popularized, has plateaued, and is on the decline. Results of the Total Quality Management (TQM) fad in America and Europe are mixed. Some organizations have made strides in quality programs, while others have failed to produce quality results.

Senge notes that the fate of certain TQM ideas remain tenuous. The American quality circles of the 1980s which addressed quality problems are dead. However, in some industries the product quality increased with application of the statistical process as proposed by Deming. Yet, even Deming (1986) admitted that statistics are really only 2 percent of the organization's quality work. The other 98 percent involves basic changes in the methods by which employees are recognized and rewarded, along with fundamental paradigm shifts in management. In some organizations, there has been a shift in management from setting goals and driving people toward achievement to a focus on continual improvement of systems. Although a few American firms are rooted in Total Quality Management, Senge believes the TQM fad is in decline. Nevertheless, only the future will tell if any of TQM's concepts are retained.
As one of the fads of the nineties, Senge proposes his "learning organizations," organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together" (p. 3). The foundation of the learning organization is individual learners. Successful organizations learn faster than their competition by utilizing the commitment and learning capacity of employees on all levels. A characteristic of learning organizations is the dynamic state of practicing the five disciplines to seek a state of excellence.

Senge proposes "five disciplines" (p. 12) to build a learning organization. The four core disciplines are: (1) personal mastery, (2) mental models, (3) shared vision, and (4) team learning. The fifth and major discipline is systems thinking, integrating all the disciplines into a coherent body of theory and practice. The first core discipline, personal mastery, fosters the personal motivation to learn how an individual's actions affect one's world, achieving a spiral of proficiency through lifelong commitment to learning. Mental models focus on the openness needed to release the shortcomings in one's present way of seeing the world. Building a shared vision fosters a long-term commitment. Lastly, team learning develops the skills of groups which enable them to broaden their perspective beyond each individual.

A Greek word describing the essence of a learning organization is "metanoia... it means a shift of mind" (p. 13). In the early Christian tradition, metanoia meant a special awakening. Likewise, metanoia in a learning organization represents a deeper meaning of learning because learning involves a fundamental shift of mind. Learning is a generative process of life wherein a person re-creates oneself to be receptive of the world and our
relationship to it. Therefore, a learning organization continuously expands its capacity to create its future through generative learning. To tap the organizational potential for creating the future requires developing the learning of individuals within the organization.

To Senge, metanoia is achieved through the application of the five disciplines in a learning organization. However, prior to building a learning organization through the five disciplines, the organization is assessed for fundamental learning disabilities. Any fundamental learning disabilities which exist in an organizational culture's thinking have been created by management and past learning. A sample of a learning disability that relates to organizational problems is "the fixation on events" (p. 21) rather than understanding the pattern of changes and the causes which underlie the events. This lack of understanding is a primary threat to the survival of both organizations and societies as major changes do not come from sudden events, but from slow and gradual processes. Senge claims an example of such an insidious societal threat is the erosion of the American public education system.

The Fifth Discipline: Systems Thinking

Any organization that wishes to become a learning organization must understand Senge's laws of the fifth discipline, systems thinking. An example of these laws is "faster is slower" (p. 62). This means that all natural systems intrinsically possess optimal rates of growth. If a system's growth is too fast or excessive, the system itself would compensate by slowing down. Another law states "persons can have their cake and eat it too, but not all at once" (p.65). American manufacturers think they need to choose between low cost and high quality, and that higher quality products cost more to manufacture. They do not consider the
fact that basic improvements in work processes, eliminating rework, and reducing customer complaints raise quality and lower cost. Lastly, a common law of the fifth discipline is "to blame outside circumstances for our problems . . . . Systems thinking shows us that there is no outside; that you and the cause of your problems are a part of a single system" (p.67). Solutions lie with the systems thinking.

After understanding the organization's learning disabilities and the laws of the fifth discipline, an organization becoming a learning organization commences with the development of the five disciplines. The fifth and major discipline is systems thinking, which means "seeing wholes . . . . a framework for seeing interrelationships . . . and seeing patterns of change" (p. 68). Real leverage in organizational management rests in understanding dynamic complexity. Some dynamic and complex situations embody improving quality, lowering costs, and satisfying customers. Thus, systems thinking aids in perceiving structures and patterns that underlie complex situations.

As the fifth discipline, systems thinking is the underpinning and conceptual cornerstone of all the five disciplines. The essence of systems thinking actuates understanding interrelationships rather than setting in action a linear cause and effect chain. Senge creates a feedback circle model a "Systems Diagram" (p. 75) which applies to any action and demonstrates interrelationships and circles of causality. The diagram begins with a situation or action, using an arrow to represent the action's influence on another element. The story unfolds in a circular manner, creating patterns of actions and a process of sequential reciprocal actions.
Systems thinking utilizes the idea of the feedback loop, demonstrating how actions reinforce, counteract, or balance each other. Since feedback means any reciprocal flow of influence, every influence is both a cause and an effect. Systems thinking assists persons in understanding deeper patterns underlying events. Although often persons see straight lines, nothing is ever influenced in only one direction, as reality consists of circles. Seeing circles of causality actuates metanoia. Therefore, according to Senge, the feedback loop overturns deeply ingrained ideas, such as linear causality.

A linear view of causality suggests a simple focus of responsibility. However, a feedback perspective suggests that everyone shares responsibility for problems generated by a system. Therefore, the search for scapegoats as the cause of problems in organizations, born out of the individualistic culture in America, is a blind alley.

To further the understanding of systems thinking in an organization, Senge identifies systems archetypes or major generic patterns that reoccur in organizations. Systems archetypes lead to solving problems, but they do not change the thinking that produces them. A common archetype is "limits to growth" (p. 95), indicating a process of growth that operates until a balancing process intervenes to limit it. An example is the Quality Circles, which were developed in Japan in the 1960s to involve employees in decision making and later were transferred to America. In America, Quality Circles failed because as they became more successful, they threatened the traditional distribution of power which eventually limited their growth.

Leverage can be applied to a systems archetype once it is identified. As an intellectual skill, leverage is understanding "where actions and changes in structures can lead to
significant, enduring improvements" (p. 114). Thus, leverage affects the outcome of systems thinking. According to Senge, most frequently, leverage ensures the principle of economy of means: for high leverage the best results come from small, well-focused actions in the right places, rather than large-scaled efforts. The principle of leverage is subtle and may be overlooked, as many persons do not understand the structures or patterns underlying actions nor look for clues suggesting the existence of an archetype.

Therefore, the essence of mastering systems thinking in an organization, as a discipline, rests in comprehending patterns where others see only events and reactive forces. It entails the ability to see the "forest and the trees -- of seeing information in terms of broad and detailed patterns" (p. 135).

Core Discipline 1: Personal Mastery

Systems thinking integrates the four core disciplines. The first core discipline is personal mastery which is personal growth through a lifelong commitment to learning. Personal mastery is the spiritual foundation of the learning organization. It is "approaching one's life as a creative work and living life from a creative, as opposed to a reactive viewpoint" (p. 141). People with high levels of personal mastery are continually expanding their ability to create a special level of proficiency and fulfilling their highest aspirations, resulting in the life they truly seek.

According to Senge, the integration of personal mastery into one's life depends upon two essential actions. The first action is continually clarifying what is important to an individual, one's personal vision. A vision is intrinsic and a specific destination in a desired future. The second action is learning how to view current reality more clearly. The gap
between one's vision and reality is the source of "creative energy . . . namely creative tension" (p. 151). The maintenance of creative tension, as an underlying principle of personal mastery, generates energy for change and accomplishments.

As an individual practices personal mastery, changes transpire: integrating reason and intuition; continually understanding more of our connectedness to the world; and achieving compassion. Compassion is grounded in our concern for one another. With compassion and empathy, one understands others. This sense of connectedness and compassion lead to a broader vision.

Senge believes that organizations need to appreciate the importance of personal mastery for individuals as it relates to their work. A fundamental task of managers involves the sacredness of their responsibility; that is, affecting the lives of many people through their work. However, existing traditional hierarchical organizations are not designed to meet higher order needs, such as self-respect and self-actualization. Still, the spirit of the learning organization resides in individuals who inherently learn. In a learning organization, there is a commitment to the well-being of its people.

Much personal potential resides in work. Impacting personal development and individual happiness, work can be cherished rather than being viewed it as a necessity. Moreover, work can be a source of an individual's lifelong process of developing ethics and values. The classic viewpoint of work is consumer orientation: work is an instrument for generating income. Traditionally, a contract of an honest day's pay for an honest day's work exists. However, Senge believes there is a different relationship between the employee and the institution. He cites pollster Daniel Yankelovich who, in 1981, pointed to a basic shifting of
attitude in the workplace from an instrumental to a sacred view of work. Therefore, the nature of work was perceived as a social institution that reached outside its walls to perform good works in the world. Yankelovich believes that people are "'sacred' in the sociological, not the religious, sense: 'People or objects are sacred in the sociological sense when, apart from instrumental use they serve, they are valued for themselves' " (as cited in Senge, 1990, p.144). In contrast, believing that an individual's development is a means toward the organization's end devalues the relationship that exists between the individual and the organization. A covenant between the organization and the individual, rather than the traditional contract, should exist. A covenant rests on shared commitment to the ideas, values, goals, and the sacred nature of relationships. The learning organization possesses the capabilities for attaining an individual's higher aspirations.

Senge proposes that some organizations fear that personal mastery may threaten the established order of a well-managed organization, and this is true. If employees do not embrace the same shared visions guiding the decision makers, empowering these employees in an unaligned organization can be counterproductive. In addition, mandating personal growth through organizations is ineffective, for personal growth is a matter of choice. However, organizations can foster a climate of safety for people to create visions, and can encourage inquiry and a commitment to the truth.

Core Discipline 2: Mental Models

Senge's second core discipline is managing mental models. The concept of mental models is a historical concept for philosophers, traceable to "Plato's parable of the cave" (p. 175). Mental models are deeply entrenched assumptions, generalizations, or images that
influence a person's understanding of the world and the reasons a person acts. Mental models may lie below the level of awareness, remaining unchanged and impeding or accelerating learning. The discipline of managing mental models consists of testing and improving internal perceptions of the world and is necessary for building learning organizations.

Managing mental models at personal and interpersonal levels necessitates the skills of reflection and inquiry. According to Senge, reflection involves slowing down an individual's thinking processes, and becoming aware of how one's mental models are formed and how they influence actions. With inquiry skills, a person operates in face-to-face interaction, especially in dealing with complex and conflicting issues. Exercising reflection skills begins with recognizing leaps of abstraction. "Leaps of abstraction" (p. 193) occur when a person moves from direct observation to a generalization without testing to determine if it was a fact. An example of a business leap of abstraction is when a manager might make an inference about why customers purchase a product without testing the generalization. Consequently, the leap of abstraction becomes a fact without substantiation.

Lastly, developing organizational mental models includes identifying a set of core values to overcome the basic diseases of a hierarchy, which include the traditional authoritarian organizational dogma of managing, organizing, and controlling. The set core of values to counteract bureaucratic organization rests in the learning organization's novel dogma of vision, values, and new mental models.

Core Discipline 3: Shared Vision

Vital for learning organizations is Senge's third core discipline, shared vision, providing the focus and the energy for learning. Shared visions are rooted in and motivated
by personal visions. Moreover, shared visions in organizations derive their power from common caring which lie in an individual's set of values, concerns, and aspirations.

Organizational leadership inspires the desired future of an organization through shared visions, galvanizing an organization. The art of visionary leadership is the ability to create a climate which encourages both personal and shared visions, binding people around a common identity and a sense of destiny. One of the deepest desires of people that underpins shared visions is the connection to a larger purpose as well as to one another.

Shared visions are affected by learning, fear, and aspirations. While adaptive learning is possible without vision, generative learning occurs only when persons strive to accomplish something that deeply matters to them, such as a shared vision. The power of fear underpins negative visions, while the power of aspiration drives positive visions. Fear can produce extraordinary changes in short periods, but aspirations endure as a continuing source of learning and growth.

Core Discipline 4: Team Learning

The fourth and last core discipline is team learning, a process of aligning and developing the capacity of the team to create the desired results. When a team is aligned, individual energies harmonize with a common purpose and shared vision. The intelligence of a team surpasses that of individuals. Because teams hold collective wisdom, the most important decisions should be made by teams. A team learns to achieve extraordinary results because of trust and common goals.
According to Senge, team learning is fostered through dialogue and discussion, the two distinct ways that teams converse. Team learning is initiated with dialogue and thinking together. To the Greeks, "dia-logos means a free flowing of meaning between people" (p. 240). There is a discovery of insights not attainable as individuals. Inherently, dialogue is a free and creative exploration of complex and subtle issues, deeply listening to one another and suspension one's own views. In dialogue, people can observe their own thoughts while different views are presented as a means to discover a new view. Team members who regularly enter into dialogue develop deep trust as colleagues because dialogue offers a safe environment for honing skills of inquiry and reflection. Lastly, in the milieu of dialogue, a facilitator holds the context, processing the dialogue and the flow of development.

Discussion is the necessary counterpart of dialogue in team learning. In discussions, different views are presented and defended, providing an analysis of the whole position. When discussions are productive, they converge on a conclusion or course of action. Discussions are balanced with dialogue as they conjointly lead the team to new courses of action. Consequently, both dialogue and discussion are conduits for profound team learning.

Senge refers to David Bohm (1991), a contemporary physicist and leading quantum theorist who has done extensive research on dialogue. Bohm uniquely synthesizes the systems or holistic view of nature and the interactions between thought, internal models, perceptions, and actions. His research has led to remarkable insights into team learning. To Bohm, team dialogue provides a larger pool of meaning that is only accessible to a group, revealing incoherence in one's thoughts. Most thought is collective in origin. Through language thoughts are shared. Teams share a language to converse effectively and govern the
complexity of their work. For Senge, the present language of teams in a learning organization is built on systems thinking, using his systems archetypes.

Team learning is vital because teams, not individuals, are the fundamental learning unit, the microcosm of learning in large organizations. Team learning has three critical dimensions.

1. Because of the need to think insightfully about complex issues, the team has the potential for many minds to be more intelligent than one mind.

2. In a team there is a need for innovative and coordinated action. Thus, operational trust exists, because each member relies upon the others to complement actions.

3. Within a team, members assume roles as both an individual and as a whole team in relationship to other teams. Within a team, all participants are regarded as colleagues. In addition, sometimes, the actions of one team are carried out through other teams. Thus, one learning team continually fosters another, perpetuating the practices and the skills of team learning more broadly.

The Learning Organization

With the practice of the five disciplines, Senge offers an original organizational prototype, the learning organization. The five learning disciplines are personal disciplines, for they deal with a person's thinking, desires, interactions, and learning. Their practice enhances the organization's capabilities for innovation and creativity. As the five learning disciplines are practiced, they do not create the learning organization, but a new wave of experimentation and advancement.
The achievement of becoming a learning organization necessitates an intensive organizational shift in culture with a continuous long-term commitment. The building, testing, and evaluating of a learning organization is always in progress. The idea of a learning organization has been invented but needs to be replicated on a meaningful scale.

However, Senge warns organizations that wish to become a successful prototype learning organization to first address the internal politics of the organization. In playing the game of politics, who wants it done is more important than what is right. If people are motivated by self interest, power, and wealth, these values may be self-fulfilling and detrimental to the organization. This perspective leads to a political environment where people are constantly focusing on their own survival. However, in learning organizations people are motivated to be part of something larger than themselves. Openness and shared visions are the antidotes to internal politics and game playing so that a commitment to live by basic values, not politics, dominates.

In summary, Senge offers the Quality Movement a fresh holistic perspective with the idea of a learning organization. The essence of a learning organization is to tap the intellectual capacity of employees at all levels, both as individuals and in teams to continually learn together for organizational improvement. Learning organizations may be an instrument and may provide leverage for the endeavors of complex human systems, altering ways of thinking. Learning organizations develop people into systems thinkers, to achieve personal mastery, to restructure mental models, to build shared visions, and to practice team learning. Consequently, Senge maintains that "learning organizations may be a tool not just for the evolution of organizations, but for the evolution of intelligence" (p. 367).
Senge's learning organization concept is in concert with the Quality Movement's ideas of continuously improving the quality of products and services in organizations and the quality of each individual's work life. His learning organization is constantly improving through its human resources and through individual learners practicing his five disciplines. Senge submits his prototype learning organization to the public for scrutiny and testing, awaiting its final outcome of possibly being another management fad or an enduring concept.

Patrick Townsend

Patrick Townsend with Joan Gebhardt (1990) in Commit to Quality provides a practical approach to implementing the quality improvement process within the service sector, previously not represented in the Quality Movement. His writing validates the transference of basic quality-related concepts from industry to service, with heavy emphasis on the human resource aspect.

According to Townsend, a void exists in the definition of quality. Crosby's definition of quality is "conformance to requirements" (p. 5). However, it was not clear whose requirements are dominant, the customers or the manufacturers. In addition, Juran's quality definition is "fitness for use" (p. 5), which is still very broad. Townsend proposes a dual-faceted definition of quality, Quality in Fact and Quality in Perception. Quality in Fact occurs when a manufacturer or service provider "does things exactly as it intends to, its output will be a quality product; it fulfills the requirements" (p. 5). In contrast, Quality in Perception is subjective. "A product or service achieves Quality in Perception when it meets the customer's expectations . . . . 'believed' to be as good as, or better than, the customer expects" (p. 4). To
validate the dual-faceted definition of quality, Townsend expounds on his experience at the Paul Revere Insurance Company, a service organization. Their successful quality improvement program is called "Quality Has Value" (p. 3).

Townsend echoes Deming's premise that a quality commitment commences with the organization's leaders. At Revere, top leadership has formed a Quality Improvement Team as the steering committee. Revere's quality program has adapted Crosby's (1980) framework, due to its utility. Revere's program called "Value Analysis" (p. 37), is a structured study of each major portion of the company. Value Analysis determines and ensures that functions are performed which achieve the essential purpose of the operation.

Value Analysis becomes a part of everyone's job through Quality Teams. Decisions and implementations that are in the employees' scope of responsibility are shifted to these teams with the idea that most employees would like some control over decisions affecting their work. The responsibility for decision making is given to teams because the underlying belief in the Quality Has Value process is trust in employees to make decisions. Quality Teams are worth this risk because of the number of ideas they generate and implement successfully.

Value Analysis allows employees to assess the relative worth of various functions they perform. Some functions of each department may be eliminated, but it is made clear that no one loses their job due to the quality process. If a position needs to be eliminated in the interests of quality, the employee is offered another position at the same or higher a level in the company. However, termination for incompetence is still an option. Nearly all the job reductions are natural. If an employee leaves for personal reasons, the Quality Team for that
department determines whether a replacement is necessary. Because of the continuing improvement in business, promises can be kept. As a result, greater job autonomy and security are promoted.

The blueprint for Revere's quality improvement program starts with the commitment from the top, extending to managers and all employees. A steering committee guides the framework and structure for the quality improvement process. The language of quality is used, defining quality personally and organizationally. Next, the quality plan is established as a permanent component of the organization's culture.

Education for all employees includes needed skills and clarification of the program's purpose: to improve as a whole organization and as a team, not a recovery from employees' errors. Even though Deming asserted that all employees should be educated in the rudiments of statistical quality control analysis, this organization decided that his recommendation depended upon the nature of the organization's work. Besides, Juran believed that statistical quality control was useful for process improvement, but not a panacea.

In addition, the organization's blueprint for the Quality Has Value process expects management to treat employees respectfully and to value their thinking. Essentially, managers trust their employees. Recognition of effort, gratitude for accomplishment, and celebration of success are swift, sincere, and fun. Lines of communication are open to receive and disperse information. This communication is accomplished through newsletters and managers talking directly to employees. A person who has a creative and flexible mind set attuned to change is assigned to coordinate and to promote the quality improvement program.

Thus, the two main quality strategies for the Paul Revere service organization were:
(1) the Quality Has Value process and (2) Quality Teams. Townsend emphatically differentiates between the quality circles of the 1980s and the current Quality Teams that are a part of Revere's successful program. According to Townsend, by 1985 an estimated 90% of the Fortune 500 companies had some form of quality circles, originally formulated in Japan. In the 1980s, American quality circles were popular and proliferated because the idea was packaged and symbolized the current participative management fad. However, in America some problems in quality circles surfaced: (1) low volunteer rate; (2) disagreement on problems; (3) lack of knowledge of operations; (4) member and non-member conflict; (5) inadequate funding; (6) expense of a parallel organization; (7) savings not realized; and (8) burnout. Lastly, quality circles did not have decision-making power, thus managers gave up no control and could easily eliminate them. Yet, quality circles heightened the awareness of the benefits of employee involvement. Thus, quality circles evolved into Quality Teams which were more inclined towards Deming's thinking by empowering the employees.

According to Townsend, because the involvement of the employees benefits the growth and strength of the company, Quality Teams at Revere have 100 percent involvement of employees. Conversing in a quality language, the team prioritizes problems and has decision-making power. With everyone on the team, knowledge of operations exist. Funding is available because the expected expense is justified by expected returns. As the process becomes a part of the employees' work, it is embedded into the organization's culture and burnout decreases.

At Revere, a manager or team member is elected as the team leader for a year and is a member of the next level team. Quality Team leaders are well trained by fellow employee
instructors. Quality teams consist of ten members, meeting for a half hour on work time. Ideas float up or down levels through a network of interlocking teams. Many teams are in place at once, possibly over a hundred; consequently, everyone is responsible for improving something via a Quality Team.

To summarize, historically revolutions are from the bottom up with the participation of the common people. The quality revolution gives workers a voice in the management of their work through Quality Teams. Higher productivity and quality is generated with the increase in the individual worker's concern for service and the process. Townsend offers an example of the Quality Movement in the service sector, verifying the practical application of some ideas of Deming, Juran, and Crosby. In addition, he attributed to the successfulness of the organization's quality program to the simple distillation of Maslow's (1970) "hierarchy of needs", the recognition of higher needs. Lastly, Townsend strongly advocates the application of teams as a effective vehicle for quality improvement through human resources.

Karl Albrecht

In The Only Thing That Matters, Karl Albrecht (1992) acknowledges the current revolution in Western management. He believes the Quality Movement is confusing, for quality is not an entity in itself and the customer service approach can be too simplistic. Thus, Albrecht fuses the basic ideas of quality and service into a single idea, his concept of Total Quality Service (TQS). "Total Quality Service exists when each person's work creates or adds value for the customer or someone serving the customer" (p. 8).
Albrecht believes it is time to re-evaluate the quality proponents and move forward into the twenty-first century assessing not which proponent is right, but what is right for economic success. He interprets the works of the three early proponents of quality, Deming, Juran, and Crosby. He believes they originally did not concentrate on the importance of the customer, but only later emphasized the customer's role in quality improvement. Originally, there was a greater focus on products and industry rather than on service. Therefore, a tw tract thinking has resulted: product quality and service quality. Due to this division, a product can be fine but the service poor, or vice versa.

According to Albrecht, quality starts with the customer. All definitions of quality criteria are tied to the customer-value model. Thus, employees are rewarded for creating value and not for just following procedures. The emerging quality paradigm is Total Quality Service, shifting from production to service. To achieve this endeavor, Albrecht proposes his 17 Point TQS Action Menu. It involves: (1) education at all levels; (2) defining mission, vision, and values; (3) quality processes; (4) quality teams; (5) customer-focused quality with feedback systems; (6) multilevel service leadership; and (7) recognition processes.

Albrecht creates a glossary of terms for the language of quality, demonstrating a shift in organizational thinking about service, quality, and human values. He offers the following definitions to promote clearer communication among employees:

1. Service is the "work done by one person for the benefit of another" (p. 71).

2. Quality measures "the extent in which a thing or experience meets a need, solves a problem, or adds value for someone" (p. 71).
3. Total Quality Service encompasses "a state of affairs in which an organization delivers superior value to its stakeholders: its customers, owners, and employees" (p. 72).

4. The spirit of service is "an attitude based on certain values and beliefs about people, life, and work, that leads a person to willingly serve others and takes pride in his/her work" (p. 88).

5. Empowerment means "responsible freedom" (p. 186).

6. Paradigm describes "a mental frame of reference that dominates the way people think and act" (p. 45).

This quality language is used in the Quality Service Action Teams, focusing on customer experiences and issues. Albrecht also proposes his seven process improvement tools for the teams. These tools resemble the flowchart or diagramming tools already in use for quality improvement, but in a more simplified format which can be helpful for persons not accustomed to statistical terms.

In conclusion, Albrecht reinforces common quality themes from other quality proponents with simplified language, focusing on the service aspect of the Quality Movement. His thinking carries the Quality Movement into the late 1990s, emphasizing serving the customer, with whom all quality endeavors truly begin. He links the thinking of the three early quality gurus to the ongoing quality revolution in America. As personal service remains appreciated, his holistic customer approach is valued. His theories reinforce the increasing trend of the Quality Movement to focus on the customer, not just a product.

A review of the contributions of the contemporary quality proponents, Covey, Senge, Townsend, and Albrecht, illustrates their illumination and embellishment of human resource
value in the Quality Movement. In addition, each proponent, from Deming to Albrecht, has their own following and can be appreciated for their unique perspectives and contributions. Each provides different and yet related ideas. At times, thought is truly collective for the proponents, as they build upon one another's ideas, broadening the Quality Movement as it touches various sectors of society. Thus, when an individual or an organization develops a formal quality program, the thinking of several proponents can be synthesized. Any movement reflects the contributions of many thinkers. Some of them become more popular for various reasons. Certain contributors have enjoyed the limelight of the movement, while others have remained in the background, nurturing the Quality Movement in a more subtle manner with their works.

**Peripheral Influences on the Quality Movement**

Other quality advocates who have contributed to the American Quality Movement have not been as readily recognized. These contributors have proposed ideas that support or reiterate concepts relating to the Quality Movement, heightening the awareness of the evolving Movement. Drawn from various disciplines and recognized as experts in their own community, these additional advocates have added an eclectic contribution to the composite of solidifying concepts in the Quality Movement. Some emerging Quality Movement concepts have been: (1) teamwork, (2) the value of the individual, (3) problem solving, and (4) continuous improvement. Thus, when crediting a change in social paradigms, one may wish to be aware of the many ideas and persons contributing to the Movement.

Dan Ciampa (1992), an organizational development advocate, documents the parallel
formation of Total Quality and the discipline of Organizational Development (OD) beginning in the 1940s. In doing so, he identifies persons recognized in their fields of study whose theories conjointly unfold with the Quality Movement. Because Organizational Development began to surface at the same time that Deming and Juran were proposing their quality concepts for the Quality Movement, a partial melding of the quality and Organizational Development philosophies is apparent after World War II.

Ciampa highlights some comparisons of Total Quality and Organizational Development. He notes there are two components of Total Quality: (1) the technical side, which uses diagnostic tools from quality engineering, and (2) the people side. For Ciampa, Total Quality is not an end in itself, but a means to a better and more satisfying organization. Total Quality is an organizational state where functions and activities are planned and implemented to meet external customer requirements. There is a reduction in time and cost, along with enhancement of workplace climate.

The people side of Total Quality is "a direct descendant of Organizational Development" (Ciampa, 1992, p. 33) and reflected in the organization's culture. Organizational cultures have been strongly influenced by and analyzed in the budding field of Organizational Development. Organizational Development is "a system-wide application of behavioral sciences to the planned development and reinforcement of organizational strategies, structures, and processes to improve organizational effectiveness" (Huse and Cummings, 1985, p. 2). It includes adult education and sociotechnical systems theories. Organizational Development is an emerging new discipline with a community of professionals dedicated to developing organizational theories and applying the theories to practice in
human associations. Some of the shared values of the Quality Movement and Organizational Development are: (1) the importance of persons being served, (2) the individuals' role in the organization, (3) teamwork, (4) decision making at the point of service, (5) reducing barriers between people, and (6) education. The similarities indicate that the developing discipline of Organizational Development has contributed to the human resource component of the Quality Movement.

Ciampa relates that in 1946 the American government hired educators to conduct seminars on the understanding the Fair Employment Practices Act. Columbia University's sociologists Ken Benne, Kurt Lewin, and Murray Horwitz, the National Education Association's Lee Bradford, and MIT's Ron Lippitt led the groups. After their students participated in the day's events, the educators analyzed the groups' behaviors and accidentally found that groups, like individuals, went through stages of development. Thus, the Training Group, or "T" Group, as a learning strategy was developed. The principles of the "T" group were the initial basis for Organizational Development. Therefore, these men laid some of the foundation for Organizational Development, which has focused on: (1) organizational processes, (2) problem solving, and (3) growth and development.

Moreover in 1948, sociologist Kurt Lewin in Resolving Social Conflicts developed Force Field Analysis which has been widely used as a change model for Organizational Development and as a TQM tool for analyzing problems. Lewin's concept of Force Field Analysis describes "any current level of performance or being as a state of equilibrium between the driving forces that encourage upward movement and the restraining forces that discourage it" (cited in Covey, 1989, p. 279). Utilizing synergy, an organization unfreezes the
restraining forces to prepare for change and creates new insights that transform restraining forces into driving ones (Covey, 1989). The refreezing of the changes institutionalizes them.

According to Ciampa, organizational theorists and experts have espoused other ideas related to Organizational Development, which coincide with the Quality Movement. One such example is the Open Systems Theory, stemming from organizational theorist Ludwig Von Bertalanffy's (1968) General Systems Theory, dating back to the 1940s. In open systems, the scope of the organization extends beyond the immediate boundaries of an organization. Employees had opportunities for self-actualization while they provided the organization with profitable and productive work. In addition, in 1968 Eric Trist and A.K. Rice, organizational researchers at the Tavistock Institute in England, suggested that social scientists merge the thinking on social systems and technology of work in an open system organization into a sociotechnical theory (as cited in Ciampa, 1992). Another organizational expert, Warren Bennis (1969), wrote about the nature of Organizational Development, which included: (1) organizational values, (2) attitudes, (3) relations, and (4) climate which were people variables. For Bennis, Organizational Development dealt with: (1) communication problems, (2) intergroup conflict, (3) leadership, and (4) motivation of employees. Lastly, Chester Barnard (1968), an organizational theorist, believed that the satisfaction of individual goals must be kept in homeostasis with organizational goals to achieve organizational effectiveness. He is known for some of his definitions presented in 1939 including organization as a "system of consciously coordinated activities of forces of two or more persons" (p. viii). He proposed that effectiveness was achieving organizational purpose and efficiency was satisfying individual motives. A cooperative organization was based on the
individual's need to achieve what an individual can not accomplish alone. His ideas rationalized that top leadership meant embodying the personal capacity for declaring decisions that promote quality and morality in coordinating organized activities and the development of purpose.

Besides Organizational Development proponents, ideas from other persons have supported the concepts of the Quality Movement. For instance, Deming was known to surround himself with social and organizational behaviorists. Thus, it was possible he was influenced by some of his contemporaries (Gabor, 1990). Peter Drucker (1986), a management theorist who followed Deming to Japan in the late 1950s, espoused participative management. Drucker describes efficiency as doing something very well and effectiveness as doing the right thing exceedingly well. Subsequently, he advised organizations to focus on effectiveness and critical tasks. In addition, as a pioneer in adult education, Malcolm Knowle's (1970) adult learning theories along with Abraham Maslow's (1970) Hierarchy of Needs theory written in 1944 might have influenced Deming's ideas. All of the above theories are in accord with the concepts of the Quality Movement and Organizational Development.

Although there was no personal connection to the main Quality proponents, Thomas Kuhn (1970), in the *Structure of Scientific Revolutions*, initiated the concept of paradigm, frequently associated with the Quality Movement. The term paradigm originally described a scientific revolution. Kuhn also introduced the phrase, paradigm shift indicating that in most major scientific discoveries there was a major change in traditional thinking, or old paradigms. A more current understanding of paradigm is "a model, theory, perception, assumption, or
frame of reference...the way we 'see' the world...in terms of perceiving, understanding, and interpreting" (Covey, 1990, p. 23).

Another theory that might have contributed to the Quality Movement was John Dewey's philosophy of education, Pragmatism. According to John Dewey (1859-1952), truth came from human experience. He promoted the scientific method of problem solving and inquiry. Problem solving was regarded not only as individualized and personalized, but was considered a social process as well. Consequently, for problem centered learning, a sense of community and cooperative group projects promoted the fullest communication among persons. Problem-centered learning was to be facilitated by a teacher who guided rather than directed people (Gutek, 1988).

These concepts have been practiced in the Quality Movement through teams and processing problems. Learning in teams is a social process. John Dewey's theory of reflective thought and inquiry, along with the importance of experience in which students learn to deal actively and creatively with their experiences, may be associated with implementing the Quality Movement in schools (Gaffke, 1993).

In summary, the writings on quality have been ongoing. The American Society for Quality Control and the Association for Quality through Participation estimate there were over 200 books espousing the importance of quality and how it affects the American economy and life (Ciampa, 1992). In addition, some peripheral thinkers and advocates of the discipline of Organizational Development have joined Deming and other quality proponents in espousing their concepts. Thus, the synthesis of ideas, not linear thinking, has been occurring and shaping the Quality Movement. This synthesis of ideas contributed to existing
concepts being combined with different methodologies, and philosophies, resulting in new ways of thinking. With the Quality Movement, one can appreciate the complexity of multiple thinkers, affecting one another, and leading to a blending of ideas. Thus, there is a recognition that a multitude of persons contribute to societal changes. Although, each quality proponent vies for a position in history, the true test of the Quality Movement's value will be the endurance of its concepts through new generations.

In chapter III, the writer will analyze the interest of healthcare and educational professionals in the Quality Movement. Grassroots supporters and pioneers in these fields spring forth claiming the applicability and benefits of the quality concepts. This response gives testimony that some of the early and contemporary quality proponents are valued by new communities of people.
CHAPTER III
THE QUALITY MOVEMENT INTO HEALTHCARE AND EDUCATION

In the mid-1980s, the Quality Movement extended from the manufacturing industry into healthcare and education. This extension assumed a different tone due to the application of quality concepts developed in manufacturing to the fields of professional healthcare and academia, which centered upon the psychosocial, biological, spiritual, and educational needs of human beings. Because the quality concepts originated in the manufacturing industry, there was skepticism among healthcare and academic professionals that the concepts could be applied to vital human services that affected an individual's capacity to contribute to society. Thus, the challenge was set for quality advocates to apply the concepts of the Quality Movement to healthcare and education.

Grassroots Movement into Healthcare

Due to the apparent success in the deployment of quality concepts from manufacturing to services, leaders of healthcare organizations took notice. Healthcare organizations were seeking ways to address the changes in healthcare. External and internal forces were affecting the delivery of healthcare, such as: (1) the increases in the cost of care, (2) third-party-payer costs, (3) consumers' demands, (4) organizational competitiveness, (5) technological advancement, (6) changing societal needs, and (7) the reduction of government monies. In addition, economic forces have changed healthcare organizational infrastructures,
moving them from their origins as social institutions associated with religious groups serving and ministering to the ill to a healthcare industry. The shift has been from not-for-profit organizations to for-profit healthcare corporations. In view of these forces, the real test of the Quality Movement in the healthcare industry has become the achievement of cost reduction while increasing quality. If the premise that quality products and services could be produced at reduced costs was achievable, as espoused by the quality proponents, the healthcare industry could have both cost reduction and quality.

The healthcare field sought a solution to the dilemma of cost accountability and quality of care with fewer resources, focusing on significant functions and processes to improve the performance norms in healthcare organizations. In 1987, a National Demonstration Project on Quality Improvement in Healthcare was initiated to address the dilemma, establishing a grassroots movement. The most notable individuals that emerged from the demonstration project were three physicians: Paul Bataldan, Brent James, and Don Berwick. Paul Bataldan first applied Total Quality Management concepts to healthcare under the title of Continuous Quality Improvement (CQI) at Park Nicollet Medical Center in Minneapolis. Brent James utilized CQI at Intermountain Health System in Salt Lake City, Utah, and Don Berwick, at Harvard Community Health Center in Boston. The national demonstration project paired an industrial quality expert with each of the twenty-one participating healthcare organizations, with success noted in fifteen of them (Berwick, 1990).

The demonstration project elicited evidence that potential problems existed with the application of quality concepts to healthcare. The industrial language of defects and standards for the manufacture of products needed translation into the healthcare arena. Patients, for
instance, differed in their need for care. Another potential problem was the investment of time and money. Although ultimately quality improvement decreased the cost of care, the initial input required time and money invested in education and employees' participation in CQI activities. In addition, CQI required all the healthcare providers to improve care through team efforts, no matter what their status or role. The physicians were the key to the acceptance of CQI, since most were accustomed to functioning with high levels of personal autonomy (Berwick, 1989).

As a result of the demonstration project, CQI was not viewed as a panacea for healthcare organizations. Individual healthcare practitioners and support personnel changes were needed for a total quality cultural change in the system. However, mission and vision statements did express organizational quality goals and values. Leaders focused on process defects and not on a search for an individual's errors. Simple, reliable statistical methods and basic quality improvement tools were employed through cross-functional teams. This included the Statistical Process Control Chart, which plotted upper and lower limits of tolerance for processes, similarly to the Shewhart chart. Lastly, a spirit of respect and support evolved among the successful participating organizations.

This demonstration project provided a new perspective on old problems and generated creative interventions through a focus on a redefinition of the knowledge process. On the whole, the joint endeavors of the twenty-one industrial experts and healthcare organizations were successful in illustrating that the principles and tools of CQI could be implemented by leaders and staff to improve care and decrease cost in the healthcare sector (Berwick, 1990). The successful application of statistical methods for collecting data and
displaying areas for improvement did work in the healthcare industry, as documented by participating healthcare organizations. The application of these tools, based upon quality control methods, was successful due to the scientific education of most healthcare workers (Lespare, 1987). Communication of the demonstration project's endeavors was initiated in 1991 through the Quality Connection newsletter, informing the healthcare community about the project participants' organizational transformations.

The application of quality assessment techniques to continuous quality improvement in healthcare organizations could also be traced to the Joint Commission for the Accreditation of Healthcare Organizations (JCAHO). The JCAHO has been a private, non-profit accrediting organization for healthcare organizations. Its goal has been to improve healthcare quality through: (1) establishing national standards, (2) surveying healthcare facilities upon request, and (3) awarding accreditation to facilities that complied with its standards. The JCAHO accreditation has been voluntary for healthcare organizations; however, its accreditation has been required for Medicare participation and reimbursement.

From the JCAHO's first published standards, in 1953, through the 1970s, the quality of care was addressed through the general assessment of hospitals performing morbidity and mortality reviews. Eventually, the hospitals demonstrated the quality of patient care through more reliable and valid methodologies, such as retrospective audits, which were time limited studies. From this, the quality assessment concept evolved into the Quality Assurance method of the 1980s.

The Quality Assurance (QA) method was the systematic monitoring and evaluation of important aspects of care, collecting data, and taking the necessary actions to resolve
problems. Hospitals were mandated to have a quality assurance plan which included medical and nursing audits that met a quality assessment standard. Thus, quality was supposed to be guaranteed or assured. Yet, the definitions of quality care and optimal care were insufficient. Questions teemed regarding the method of assessing and determining significant aspects of care and the assigned actions. In addition, QA was within the authority of a designated department and was perceived as externally enforced by employees.

Laying the foundation for the move from Quality Assurance to Continuous Quality Improvement, the JCAHO initiated its Agenda for Change in 1986, requiring hospitals to develop evaluative systems for the quality of structures, processes, and patient outcomes (Puta, 1991). Thus, in the 1990s, the JCAHO's further evolution from QA to CQI changed the focus from guaranteeing a single level of quality through a department as an external force, to multiple perspectives of quality, assessing processes, and being internally driven through teams. Leadership techniques, education, collaborative communication, and evaluation of effectiveness of CQI activities were the new principles of quality. Therefore, Quality Assurance acted as the forerunner of CQI, which broadened the scope of improvement knowledge and techniques to achieve a change in healthcare.

The JCAHO's expectations for accreditation during the 1990s were clear. Healthcare organizations were to permeate CQI throughout their whole organizations, including the implementation of self-assessment mechanisms of quality care and of feedback from patients, payors, employees, and the community. Healthcare's self-assessment included information on improving the organizations' processes to achieve quality patient care. Therefore, there was a
natural evolution from the Commission's previous quality endeavors to integrating CQI into the present standards (JCAHO, 1991).

Subsequent JCAHO standards reflected the progression toward quality improvement for healthcare organizations through implementation of the CQI and TQM core concepts. These concepts included: (1) the role of leaders enabling the improvement of performance; (2) acknowledgment that most opportunities arose from processes, not individuals; (3) collaboration of departments and professional groups in solving problems; (4) input about quality care from patients and others, leading to the development of defined and prioritized opportunities for improvement; and (5) the need for systematic improvement of important performance functions to improve patient health outcomes. The ultimate responsibility for the transition of quality improvement was assigned to the healthcare's organizational leaders, including nursing leaders (JCAHO, 1994).

Kurt Darr (1993), a professor of hospital administration at George Washington University, reiterated that: (1) the JCAHO standards, (2) peer pressure, and (3) knowledgeable transitions have forced hospitals to begin using CQI. Yet, doubts remained as to the applicability of CQI to healthcare. Darr supported Deming's idea that if people thought training in quality was expensive, then try ignorance. He sent a caveat to the naysayers to CQI in healthcare, because he believed that healthcare should not be denied the potential of CQI.

The Quality Movement had captured the interests of other healthcare organizations and spurred a rapid growth in its development. The expansion into healthcare became overtly evident when industrial quality consultants crossed over into healthcare, attempting to
transfer their successful quality strategies from manufacturing products to human services.

Education in the quality concepts championed by the quality proponents, Deming, Juran, and Crosby, was provided through national healthcare quality conferences and study groups. The personal availability of the quality gurus lent credence to the ideas that the Quality Movement was alive, well, and, indeed, could be applied to healthcare. The need to communicate the experiences of the budding healthcare Quality Movement resulted in the development of quality healthcare journals, as a medium for sharing and promoting quality endeavors.

A more in-depth application of Deming's quality concepts was proposed by Paul Batalden, MD, vice president of a health corporation, and Patricia Stoltz, director of healthcare quality improvement at Henry Ford Health System (1993). They developed a conceptual framework for continual improvement in healthcare. Incorporating Deming's (1993) quality concepts, the framework integrated: (1) the development of new knowledge, (2) leadership policies that shared purposes and promoted organizational learning, (3) mastery of improvement methods, and (4) the application of systematic approaches. The functional purpose of the quality healthcare framework was building and utilizing knowledge for daily work processes.

According to Batalden's and Stoltz's framework, two categories of knowledge were needed in healthcare: (1) professional and (2) improvement knowledge. In the past, improvement in the healthcare field rested on advances in professional knowledge, which included specific subjects and disciplines, such as nursing, and professional shared values. Professional shared values emanated from underlying moral values of patients, families, and providers, and from social values that were tacit in social and scientific policies. However, a
new type of knowledge was also necessary in healthcare, "improvement knowledge" (p.427).

The foundation for Batalden's and Stoltz's healthcare continual improvement framework encompassed Deming's (1993) thinking on quality, including his concept of a profound system of knowledge. Deming's profound system of knowledge consisted of four elements: (1) knowledge of systems, (2) knowledge of variation; (3) theory of knowledge; and (4) psychology of individuals, society, and change. To propagate quality healthcare, healthcare professionals would need to understand their relationship to: (1) the open systems theory, (2) statistical methodology, (3) human behavior and change, along with (4) how knowledge was created.

In addition, their framework included another of Deming's (1986) concepts, illustrated as a flow diagram, showing the essential elements of production as a system and continual improvement. The diagram was first presented by Deming at a 1950 Japanese conference. The essential elements of Deming's production system consisted of: (1) suppliers, (2) processes, (3) customers, (4) consumer research, (5) design, and (6) redesign. Batalden and Stoltz superimposed a hospital system of quality improvement on Deming's original production system and quality improvement model entitled "The Hospital Viewed as a System for Delivery of Patient Care" (p. 439). They offered a simple analogy of a healthcare system capable of continual improvement, demonstrating to the healthcare professionals that some industrial quality concepts indeed could transfer to the healthcare setting.

Batalden's and Stoltz's framework associated the Deming cycle with Dewey's linkage of theory and action as the potential for learning and building knowledge (Schon, 1987). According to Batalden and Stoltz, Dewey's theory was an underlying method for building
fundamental knowledge and learning for continual improvement. Deming's quality
improvement cycle dovetailed with Dewey's linkage of theory and actions to achieve learning
and building improvement knowledge. After developing their quality improvement
framework for healthcare, Batalden and Stoltz concluded that the simple proliferation of
quality tools was not the answer for quality healthcare. Instead, quality healthcare required an
organizational transformation through the application of professional and improvement
knowledge to daily healthcare work.

Since the incorporation of the healthcare component into the Quality Movement in
the late 1980s, positive data have continued to surface. Healthcare's move toward quality
improvement heightened awareness of the humanity and complexity of the healthcare
organization. Quality patient care was generated by individual healthcare personnel
interacting directly or indirectly with the patient and family. It was evident that the product of
quality healthcare was effective patient outcomes achieved by satisfying the patient's needs.
Even though a healthcare organization's performance in the delivery of care was reflected in
its systems, some organizations acknowledged that human error within systems was most
often designated to the system and not to individuals (O'Leary, 1990).

Added findings from healthcare organizations were shared in the literature. Evidence
indicated that cross-functional teamwork improved healthcare processes. Teamwork not only
increased communication and internal customer-supplier relationships, but respect for
individuals rose. Employee participation in teams gave the individual a sense of purpose and
accomplishment. Because documenting data was a way of life for healthcare providers, data
were readily available for quality improvement projects. Even though the initial costs of
developing teams were high, savings were attainable. Shared data illuminated that most important to the implementation of CQI and teamwork was the involvement of physicians as supporters and stakeholders. Thus, education needed to begin early for all persons associated with the organization, including physicians.

Healthcare data also indicated that top leaders needed to support the organization's resources, planning, and constancy of mission for quality improvement. Top leaders enabled their organizations to join in the Quality Movement, supporting the improvement of quality care and services in healthcare. In doing so, the healthcare leaders were in concert with Deming's thinking, indicating a state of mind which fostered an organizational culture change (Berwick, 1990).

Yet, even though positive data were documented in the literature, healthcare professionals continued to express difficulty in defining quality and its achievement. Defining quality was problematic in healthcare because of the various perceptions from academia, medical, and non-medical sources. Healthcare's lack of a single definition of quality reflected the reactions of other social sectors. Thus, reverting back to Deming who states that "quality can be defined only in the terms of the agent" (Deming, 1986, p. 168).

The grassroots efforts of CQI in healthcare organizations have encompassed nursing. Being the largest number of healthcare providers, over two million, nursing has been swept into the course of the Quality Movement journey. This should be a natural transition for nurses, for they have been accustomed to the coordination, assessment, planning, and evaluation of care. Nurses have been collaborating with other healthcare providers, delivering individualized care for patients and families. Because nurses have been at the point of service
as patient advocates, they have been familiar with quality problems associated with the healthcare's primary customers, the patient and family. And, to monitor quality care, nurses have been performing nursing quality assurance audits for data collection and analysis. Consequently, nursing's quality assurance has paved the way for their transition into healthcare organizational CQI.

According to Mailbusch (as cited in Tillberg, 1992), a nursing quality assurance expert, nursing has had a continual concern and responsibility for quality patient care. She indicated that Florence Nightengale in 1860, wrote Notes on Nursing: What It Is and What It Is Not, which championed the collection and analysis of data and the setting of standards of care. Standards of patient care and nursing practice enabled the comparison of care and practice to set criteria, targeting changes to needed to comply with the designated standards and to promote quality. Since 1975, the American Nurses Association has been publishing professional standards and their code of ethics, addressing quality of care and providing a professional regulation mechanism for nursing practice to meet its contract with society. Because of nursing's ongoing inherent commitment to quality, the transformation to quality improvement concepts has been easily applied by nurses to nursing practice, as individual practitioners, interdisciplinary team members and leaders for quality improvement.

Emerging nursing literature documented that nurses were beginning to assume a role in applying CQI within different healthcare positions and identified new opportunities for their leadership in the Quality Movement. Examples of nurses working in CQI healthcare teams at the grassroots level to improve patient care outcomes were published. Fitzpatrick (1994), a quality improvement specialist, described how the JCAHO 1994 standards and the CQI
healthcare team approach were applied to improve patient care in a hospital's medical unit. The hospital's initial foundation for improving delivery of care processes was a framework based upon the JCAHO 1994 standards requiring a systematic, multidisciplinary method of improvement.

The hospital's systematic method began with a performance measurement obtained by studying the scores from the application of a standardized and nationally used patient satisfaction tool. The survey revealed that their hospital patients were not satisfied with the response time and attitudes of their staff to patients' calls. The second step, a performance assessment, completed by a quality improvement team, comparing individual nursing unit scores to the national standard. Analysis of the process of answering a patient's call was accomplished with a flowchart and a cause-and-effect diagram. The third step was performance improvement through unit-level education. Data collection was achieved in the fourth step by obtaining a new sample of staff response times to patients' calls. In the fifth step, staff conducted forums to discuss patients' perceptions of time and their multiple needs, along with obtaining staff suggestions for change. Lastly, to maintain and continue measuring improvement, ongoing survey results were displayed through statistical process control charts. Fitzpatrick credited their focused team effort with the success noted in reducing response time to a patient's call.

The use of group process, a foundation for teamwork, has been common in nursing. Likewise, TQM philosophy and its operational method depend upon group process to achieve goals. The application of group process, as practiced by Lanza (1994), a Psychiatric Clinical Nurse Specialist, and an Advanced Practice Nurse, was compared to the role of a
TQM group or team facilitator. She described the similarities of group process in a clinical setting and in TQM. Lanza concluded that a TQM facilitator, with knowledge of group process, would make an effective leader of teams in nursing or healthcare as currently facilitated by Clinical Nurse Specialists.

Another role for nurses in CQI included staff nurses participating as problem solvers within interdisciplinary healthcare teams. One example was that of an emergency room nurse on an emergency room quality team at a medical center, as documented by Estes (1993). In the emergency room, the CQI team consisted of representatives from various disciplines, including staff nurses and a healthcare consumer. Quality tools were applied to resolve the problem of untimely notification of the admission of trauma patients to their families. Data were collected and possible solutions were tested for three months. The problem-solving techniques of CQI were effective in changing troublesome processes within the emergency room's patient care system. In addition, Estes validated that teamwork was cost effective for the emergency room department.

Another example of the effectiveness of staff nurses within a CQI interdisciplinary team was through the efforts of a nursing and pharmacy departments' quality project (Burkhart, Nardone, and Wandmacher, 1994). Utilizing Deming's cycle provided the interdisciplinary team with a systematic approach for improving the communication between the pharmacy, as the medication supplier, and unit-based nurses, as the customers. The area of improvement centered upon increasing the efficiency and accurateness of processing doctors' pharmacy orders between the nursing unit and the pharmacy. To analyze the medication ordering process, the interdisciplinary team employed quality tools such as: (1) a
flowchart of the process, (2) frequency graphs of necessary corrections and interdepartmental communication methods, along with (3) a communication cause-and-effect diagram. These tools aided in providing a solution that increased effective communication and accuracy of processing physician orders between the two departments.

In addition, the fax machine, computer, and telephone, as technological methods of communication were pilot studied. Generated data found that the fax machine was the most effective method of communication between the departments. The new communication process for physicians' orders also included a written form to enhance interactions. Ensuring that the new communication process was implemented, all nursing and pharmacy employees were in-serviced. The authors pointed out that the actual success of the project was attributed to the participation by the employees directly affected by the work processes, the staff nurses, staff pharmacists, and unit secretaries.

Lastly, a view of nursing's role in CQI was offered from a nursing administration perspective. Margaret Sovie (1990), a chief nursing officer at a university hospital, cited Peters and Waterman (1982), organizational development researchers, as believing that restructuring healthcare organizations would position them to thrive on the present chaos in healthcare. When redesigning future healthcare institutions, Sovie recommended incorporating Deming's (1986) quality principles. She stressed Deming's thinking that the human side of an organization was its greatest asset. Moreover, she agreed that Deming's teachings demonstrated that a majority of the organization's problems rested in the system and not the staff. Thus, Sovie, as an nursing leader, supported the quality improvement roles
of nursing staff and management, restructuring the organization through a collaborative relationship and shared responsibility.

This sampling of literature provided the data that nurses, as members of healthcare organizations espousing CQI, have been active in the initiation of grassroots CQI in healthcare. Emulating industrial corporations, healthcare corporations might have facilitated the initial fervor to apply CQI principles. Thus, the Quality Movement has affected some healthcare organizations in their operations including: (1) management, (2) structure, (3) performance assessment, and (4) resource allocations.

However, the quality philosophy implementation in healthcare organizations has been challenged due to a healthcare environment of political, social, and economic upheaval to contain healthcare costs. Stemming from these forces, there has been a call for healthcare reform. Since the 1990s, "corporatization", restructuring, and downsizing have been occurring in medical centers, reflecting a shift of patients to ambulatory and community services in an effort to decrease costs. Likewise, healthcare professionals, especially hospital nurses, have been experiencing loss of positions, as patient care has shifted to outpatient facilities and into the community. TQM might be perceived as being at odds with these changes due to its initial cost and long-term commitment. Moreover, some healthcare professionals have become wary of TQM in hospitals. In some instances, under the guise of using TQM for quality endeavors, healthcare providers, especially nurses, have been eliminated to reduce costs. Teams have been perceived as a management ploy to manipulate employees and to prevent the unionization of employees (ANA, 1993). Nurses have been documenting a possible decrease in quality of care caused by cost reduction strategies and the
quick-fix approach of eliminating nurses or substituting for them with less skilled personnel. The sense of trust between some healthcare organizations and their employees has been strained during such work redesign and cost reductions, thus seeming to test the motivation and true intent of the Quality Movement in healthcare. In addition, measuring patient care outcomes in terms of quality principles has not been well documented in research during this era of healthcare reform.

Yet, the Quality Movement story is still unfolding, not only in healthcare provider organizations, but in other organizations associated with healthcare. An example is a national governmental agency which sets guidelines affecting quality healthcare, the Agency of Healthcare Policy and Research. In addition, the National Association for Healthcare Quality, composed of quality professionals, has evolved along with the healthcare industry to carve the path for continuous quality improvement. This healthcare quality management association has been an educational foundation and certifying body for quality, utilization, and risk management professionals. The development over time of organizations supporting quality illustrated what Deming had predicted in 1980. He said that it would be decades before the quality transformation would be embedded in American organizations, including healthcare.

**Total Quality Management and the Educational System**

Early in the late 1980s, various social, economic, and political forces motivated the implementation of quality concepts in the American educational system. Critics of American education continued to believe that positive changes had not occurred despite continuing research and multiple reforms throughout the years. The efficacy of the educational system
was most doubtful in the primary and secondary schools, the suppliers of students for higher education. The National Commission on Excellence in Education report of 1983, *A Nation at Risk: The Imperative for Educational Reform* (as cited in Ornstein and Levine, 1993), very poignantly described the status of primary and secondary education in America. A flood of negative criticisms of American schools resulted.

The lack of quality was supported by Spanbauer (1992), an educator, who maintained that serious defects continued to exist in American education. From 1981 to 1991, spending per pupil increased 33 percent, while student achievement scores remained stagnant. The gap in per-pupil spending between the wealthiest and poorest schools in our country was at its widest in the past 20 years, varying as much as $5,000 per pupil from one district to another. Over a million students disappeared from education each year; secondary school dropout rates in larger cities averaged 30 to 50 percent. About 20 percent of United States adults were functionally illiterate. In addition, American students tested two to three years behind French, German, and Japanese students in both high school math and science. Nearly 60 percent of seventeen year-olds lacked the reading comprehensive skills for higher education. Because the skill attainment in education did not match the needs of the workforce of the future, businesses needed to spend millions of dollars providing their employees with these skills. How young people graduating from the American educational system in the year 2000 could be capable of successfully competing in a global society has been an issue (Gay, 1986).

In addition to the negative comments about primary and secondary education in the 1983 report *A Nation at Risk*, businesses voiced concerns about the declining quality of baccalaureate graduates for the workforce. This momentum for higher education reform
turned political with the 1986 reports from the Education Commission of the States and the National Governors' Association, addressing the lack of undergraduate quality (as cited in Ewell, 1991). In 1990, additional political forces pressured the American education system to improve through accomplishing national educational goals outlined in *America 2000: An Educational Study*, formulated by the President Bush and 50 governors (as cited in Deming, 1993). Thus, the impetus to improve education was reinforced, adding to other external pressures and problems in higher education which included: (1) rising costs, (2) poorer preparation of freshman, (3) tight budgets, and (4) financial hardships.

Ellen Chaffee, a professor of business, and Lawrence Sherr, a vice chancellor of academic affairs (1992), provided in-depth insights into impending educational reform and the Quality Movement in higher education. Before 1950, a high level of quality in higher education was achievable because: (1) the brightest students applied, (2) institutions selected the best applicants, and (3) classes were graded on the curve, so nearly two-thirds of the students could be eliminated prior to graduation. Thus, admission of quality students enabled institutions of higher learning to produce high quality graduates. Education was accepted as a luxury and privilege. However, in the last ten years the demand for higher quality in colleges and universities has become unprecedented. The necessity of obtaining higher education to achieve a financially-rewarding position in a changing post-industrial workworld has increased.

According to Chaffee and Sherr, in the 1990s almost 50 percent of high school graduates are seeking post secondary education, as higher education has become defined as both a right and an economic necessity. Consequently, an attempt by higher education to
control the input into quality education through the selection of only high-quality students is no longer possible. In addition, much of society believes that higher educational institutions have not responded to quality educational challenges. Therefore, Chaffee and Sherr predicted that a shift in addressing quality in education was needed to focus on quality in terms of process, design, and output in academia.

Quality assessment and assurance have been ongoing goals and concerns of American education, addressed through accreditation of educational institutions and programs. Presently, post-secondary education has been exposed to a communal process of assessing quality education through accreditation. There were about one hundred non-governmental institutional and professional bodies accrediting post-secondary institutions and programs through standards, self-studies, and site visits by a team of peers. This accreditation through non-governmental bodies stemmed from the fact that the United States Constitution placed the responsibility for education on each state and local government. As voluntary accrediting bodies, academic and professional educational communities provided quality assessment and assisted educational institutions and programs in continuous improvement. In turn, evaluating, fostering, and facilitating the accrediting bodies, was the American Council of Post-Secondary Accreditation. This comprehensive accreditation system served the interests of students, professions, institutions, and society by promoting educational quality assessment and enhancement. (Lenn, 1992)

Like healthcare organizations, higher education has been experiencing pressures from professional and accrediting bodies to incorporate TQM techniques. The American Association of School Administrators and two post-secondary accrediting bodies, the
American Association of Collegiate Schools of Business (Chaffee and Sherr, 1992) and the Accrediting Board of Engineering and Technology (Benmark, 1993), endorsed the application of TQM in their respective fields.

To proactively address the quality educational challenges at the levels of primary, secondary, and higher education, a growing number of educational facilities have been testing the application of TQM. Betty McCormick (1993), education policy advisor and TQM education consultant, believed that while past national accomplishments in education have been legendary, education currently needs to meet higher standards. Furthermore, she held that TQM could assist in transforming the whole process of schooling from design to delivery to marketing. She offered a compilation of articles linking kindergarten to twelfth-grade educators to higher education, businesses, the local community, and state resources in the pursuit of TQM. McCormick identified the educational stakeholders as customers and suppliers, linking them to education. The stakeholders were classified as primary or secondary linkages, according to the frequency of their contact with an open-systems perspective of education. The primary linkages consisted of students, parents, and teachers. Secondary linkages were businesses, colleges, quality consultants, and the governors' education policy advisors. Promoting TQM networking among education supporters, she published a directory of over sixty school districts and educational institutions with ongoing TQM initiatives in various states. One purpose of the compilation of essays was to provide benchmarking for education, a TQM concept. Benchmarking was finding the best example of a process or program and highlighting it as a model for emulation.
An example of a successful TQM school district model was provided by a school superintendent, John Helfrich and a principal, Dorothy Vienne (1993). They described the initial 1981 and ongoing TQM pioneering endeavors in their Kenmore-Town of Tonawanda Schools, from kindergarten through twelfth grade, that warranted the first New York Excelsior Quality Award in 1992. The educational achievement award paralleled Deming's fourteen points for quality improvement. Helfrich and Vienne believed the award was won because of their educational program's value and cultural systems being based upon quality principles. Applying TQM concepts produced quality results for the school district over a ten-year period. Significant data included: (1) a decrease in pupil drop out rate, (2) an increase in graduates continuing their education, (3) a discontinuation of traditional report cards, substituting outcome-based education; and (4) lower teacher turnover.

Other school districts have applied TQM initiatives through statewide policy deployment. Deming's TQM principles were translated into action by some state educational systems, with Virginia being one of the first through a grant from the United States Department of Education in 1990. Since 1991, Texas, Arizona, Michigan, and Minnesota mandated state-wide TQM policy deployment in education. Thus, state agencies acted as catalysts for TQM educational change. Because businesses are customers of education, their close relationship with state agencies and individual districts added to the success of their states' TQM initiatives. Through corporate partnerships with education, companies such as Xerox, IBM, and Sterling Chemicals, provided TQM knowledge and mentors to educators, aiding in the restructuring of state primary and secondary educational systems (McCormick, 1993).
Colleges and universities, in the middle 1980s, began borrowing the Quality Movement concept of TQM from business corporations. The apparent success of the quality concept was fascinating to some educators, as it continued to be practiced in the industry and healthcare sectors. Borrowing potential business fads was not new to education, for corporate financial management and marketing practices were accepted into its organizations in previous years. Yet, educators were skeptical that TQM corporate practices could be effective in a humanistic service, such as education.

In addition, educators noted that, in some industrial and healthcare organizations, TQM had become a comprehensive way of life, incorporating its philosophy, principles, and tools. According to Chaffee and Sherr (1992), TQM did not provide a uniform definition of quality for all the problems of higher education, but often posed questions and potential methods. However, TQM had "face validity" (p. 8) in that it made good management clear and understandable through many known principles and management tools.

Chaffee and Scherr (1992) noted that higher education TQM pioneers operationalized the Quality Movement concepts within their institutions in varying degrees, such as at the universities of Wisconsin, Pennsylvania, and Michigan and at Fox Valley Technical College. Of all the quality proponents' concepts, Deming's fourteen points most easily dovetailed into the activities and values of educators, since his ideas and language were appropriate to almost any organization. For higher education, quality improvement consisted of three main components: (1) quality was defined with the needs of the persons and groups that it served; (2) improving quality referred to the organization's performance, such as process analysis; and (3) improving overall administration. In higher education, continuous
quality improvement was related to design, output, and process. Quality in design referred to output, such as an academic program that met student needs. Process was composed of: (1) the program elements, (2) curriculum, (3) instructional strategies, (4) faculty, and (5) equipment, the proper combination of which lead to desirable results in many cases.

Chaffee and Sherr illustrated specific examples of higher education to demonstrate the applicability of TQM in administration and classrooms. Coate (as cited in Chaffee and Sherr, 1992), an administrator, reported that, in 1986, Oregon State used TQM to improve administrative processes with teams, assessing TQM's potential for the university. Utilizing TQM provided the framework for reducing time in processing budget preparation and grant documents. Another example of TQM application in university administration was highlighted. The North Dakota University chancellor's office personnel determined that they maintained an enormous amount of correspondence in an inefficient manner. Through a cross-functional team approach and application of the Deming cycle, they discovered disorganized multiple filing systems. After establishing a new system of filing, their improved correspondence process saved $70,000 over three years.

Lastly, TQM principles were applicable in university classrooms. A business statistics teacher, Hai (as cited in Chaffee and Sherr, 1992), and his students at the University of Wisconsin formed a team to continually eliminate the defects in the teaching process. Students were defined as customers of the delivery of course materials. The team utilized the cause-and-effect diagram to illustrate factors creating a quality class. These factors were the basis for student satisfaction surveys. In only one year, the numbers of students having problems in computer usage and class presentations dropped. Although the changes were
small, the student impact was large. Students learned that it takes courage to identify defects and improve. According to Chaffee and Sherr, higher education institutions were still initiating the philosophy of quality improvement, therefore TQM's long-term and total effects have yet to be fully evaluated.

The role of higher education in linking community colleges and their supplier schools was described by DeCosmo, Parker, Scott and Staas (1993), administrators at Delaware County Community College. Since the inception of TQM at Delaware County Community College in 1986, the college had created partnerships that worked for the benefit of students. To put the student first, the educational system was viewed through the eyes of the student. This new perspective resulted in a seamless system view of the student from the feeder schools through the college experience. The new system perspective consisted of interlinking processes with the common purpose of adding value, knowledge, and skills to students' lives as they progressed through college. To improve supplier/customer relationships, the college provided: (1) each high school with college information about their former students; (2) two Tech Prep curricula for students beyond high schools; and (3) introductory TQM education and consultations for educators. Subsequently, the school districts and the college experienced collegial functioning within a larger, independent educational system. Through the joint efforts of colleges and secondary schools, the students, the public, and the taxpayers benefited from a more effective educational system that used resources wisely.

In the essay, "The Role of Colleges of Education in the Quality Transformation of Education", Professor Bryan Cole and Dean Jane Stallings (1993), at the College of Education, Texas A&M University, asserted higher education's leadership role in TQM.
Presently, they are collaborating with thirteen other colleges of education in restructuring teacher and administrator programs in light of TQM principles. According to Cole and Stallings, TQM philosophy is significant for the management of education and for educational preparation of teachers and administrators to be leaders of quality schools. Educational restructuring could be accomplished through making fundamental changes the design and management of educational systems through a dedicated commitment to TQM principles and implementation.

A total quality action plan for the Texas A & M College of Education was devised for five years covering four educational areas: (1) college management, (2) curriculum, (3) research, and (4) propagation. The plan included integrating three tenets in their educational transformation: (1) organizational design, (2) Deming's system for profound knowledge, and (3) environmental sanctioning. Because an organization's design determined its results and TQM improved the total behavior of an organization, the College of Education would prepare educators who could design and manage effective educational organizations. This perspective was to be balanced with a student focus. Included in the action plan was a curriculum encompassing the second tenet, the four interdependent elements of Deming's system for profound knowledge: (1) systems theory, (2) variance, (3) psychology, and (4) knowledge theory. Management of future educational transformation by emerging educational leaders required understanding the elements, application, and implications of the system of profound knowledge. In addition, the College of Education recognized the need for research to determine the system of profound knowledge's potential within education. The third tenet rested in the idea that all organizations must be sanctioned by their environment in
order to survive. This idea was in concert with the TQM principle of achieving customer satisfaction. The acknowledgment that dramatic changes in our society existed would be addressed in their curriculum for future educators and educational leaders.

According to Cole and Stallings, the implications of providing a new educational model, integrating the three tenets would challenge colleges of education. Because these challenges addressed the theory and practice of education, an educational redesign should be reflected in the educational mission statement that included developing ethical, moral, and environmentally-sensitive professionals capable of designing and managing effective educational systems through the utilization of profound knowledge and continuous improvement methodologies.

Cole and Stallings praised the results of Texas A & M's TQM endeavors in their own college of education, including their collaboration with other colleges and their partnerships with middle schools through intersystem team approaches. Other components of the total educational system, including government, business, and industry, appreciated the college's value of adopting and applying TQM in education. Consequently, a common perspective enabled an educational system to enhance student achievement. Texas A & M University's College of Education was compared to a "learning organization", achieving a transformation in quality education. The college maintained that the solutions to educational challenges rested in collaboratively identifying and addressing critical processes in college management, curriculum, research, and propagation.

The leadership role of a college of education was also documented by William Hartman, Professor of Education Administration at Pennsylvania State University, and
Sheldon Whitaker, Superintendent of Schools, State College School District in Pennsylvania (1993). Hartman, as the Director of the Center for Quality Schools in the College of Education, joined Whitaker to bring quality principles to school districts in Pennsylvania. The Center for Quality Schools was the first university-based project devoted to providing primary and secondary school educators and administrators with the education and research foundation necessary to implement TQM in education. The Center was housed in the Educational Administration Program, collaborating with the Department of Curriculum and Instruction, and other university units involved in TQM. Because TQM would only be successful with visible support from top management, its association with the Educational Administrative Program provided a degree of respect for the endeavor and a platform for assessing the implications of TQM for the effective administration of public schools.

According to Hartman and Whitaker, outside support was given to the Center by businesses and councils, encouraging local schools to initiate TQM in their operations without business control. Business support included: (1) nationally recognized speakers for quality educational seminars, (2) consultants, and (3) use of high technology facilities. Businesses also extended the Center's opportunities to market its mission to elementary and secondary schools. Thus, businesses championed the Center's purpose of providing education, research, and support and the ultimate goals of local schools practicing TQM in their operations and teaching TQM principles to their students. The Center was encouraged to perform research, incorporating it into future educational sessions to ensure current and appropriate information for local schools. In addition, graduate and undergraduate courses
for quality leadership were provided as a principal function of the Center, along with providing a network for total quality practitioners.

Generally speaking, Hartman and Whitaker believed the leadership role of colleges of education was twofold: (1) centering on the development of educational leaders for quality schools, and (2) assisting schools primary and secondary schools to focus on TQM principles and practices. Colleges of education were in the unique position to influence education, support activities, and conduct research projects related to TQM. Focusing on education and the selection of superior management practices, such as TQM, represented the best in university-school district-business collaboration. On the educational leadership level, TQM represented an opportunity for students of education to develop and exercise their quality leadership skills to impact society.

Additional TQM educational literature, revealed higher education's reaction to the Quality Movement. In 1991, Daniel Seymour, a quality consultant to colleges and universities, conducted a survey of twenty-two TQM pioneering colleges and universities. Although the expansion of TQM into academic areas was controversial, Seymour reported findings from a comprehensive, critical assessment of quality management initiatives. The respondents identified key TQM benefits, major frustrations and problems. Some benefits included: (1) increased efficiency, (2) improved climate, (3) improved attitude, and (4) involvement of people. There was: (1) listening by staff to customers, (2) respect for data-based decision making, (3) lowering of campus barriers, (4) focusing on the institution's mission, and (5) improved cost effectiveness. Employees felt better about their jobs, students were happier, and communication was improved. However, the problems identified were: (1)
time requirements, (2) unclear commitment from the top leadership, (3) aversion to change by some persons, (4) difficulties in achieving a deep acceptance of TQM philosophy, and (5) difficulties in establishing effective teams, along with (6) identifying tangible results. Ultimately, it was TQM's simple ability to give people a voice in their work that made it a powerful organizational alternative. Total Quality was, in some instances, the leverage needed for creating quality education (Seymour and Chaffee, 1992).

Additional professional publications have emerged supporting TQM in higher education. Robert Masters, a business professor and Linda Leiker, a graduate student (1992), applied each of Deming's fourteen points to higher education. They saw the framework of Deming's philosophy and principles as an opportunity for improving quality in higher education and fulfilling the needs of the customers, the students. For example, Masters and Leiker interpreted and applied Deming's point to stop dependence on mass inspection to higher education. They indicated that the quality of higher education was often assessed by the use of student evaluations of classes and instructors, which could be misleading and unfair. Instead, the authors recommended the quality of instruction be assessed by examining the process and obtaining feedback from peers and students who have taken the instruction and applied it to the real world. Their approach would be in keeping with Deming's philosophy.

Another positive result of TQM was the development of employee empowerment (Sherr and Lozier, 1991). Empowerment meant that employees closest to the point of impact had a critical role in the decisions affecting their lives. Because of less supervision, there was more trust, respect, and cooperation in performing the work. Furthermore, TQM espoused
shared values, addressing: (1) the importance of people, (2) the need to use knowledge, and (3) the need for continuous improvement. However, there was no set TQM formula, as each educational institution needed to assimilate TQM into its own unique culture.

Nevertheless, common objections to TQM in higher education existed (Marchese, 1991). Some remonstrances included: (1) the viewing of students as customers, (2) the technical language of TQM, (3) the inability to perceive the relevance of a business approach to faculty and students, and (4) the dismissal of the uniqueness of TQM as just good management or as a fad. In addition, most administrative boards and staff were unskilled at teamwork and powerful individuals often resisted change from sheer inertia and vested interests.

The world of academia, by nature, questions and tests philosophies, and the TQM philosophy was no exception. Estella Benisimon (1995), an educator at the University of Southern California, challenged the application of TQM. Her analysis concluded that TQM produced conformity by reducing variation and did not reflect valuing academia's diversity of culture, gender, and ethnicity. According to Benisimon, the implementation of TQM was a result of persons in academic power responding to the ultimate customers of education, people with financial interests and corporate demands, to prepare their future employees. By utilizing TQM language and postulates, she proposed, higher education catered to corporations, to counteract the loss of public confidence and dwindling financial support. Thus, Bensimon's perception was that the reason academia practiced TQM was to achieve a self-serving alignment with corporate ideas, based upon quantifiable productivity and mandated budget cuts. With the existing diverse views of TQM, such as Bensimon's view
which challenged its definition and motivation for application, it was doubtful, that TQM would become quickly accepted by the existing 3,614 campuses. Yet, TQM would eventually touch hundreds of campuses, bringing with it dramatically different perceptions concerning management and governance (Marchese, 1991).

To illustrate the scope of TQM in touching various campuses, by way of another example, some baccalaureate nursing education schools have initiated the inclusion of TQM information in coursework, recognizing its trend in healthcare. However, current literature is very scarce to non-existent, linking nursing education to a more in-depth application of TQM. Therefore, a need persists to evaluate the benefits of continuous quality improvement in nursing education, since healthcare organizations were mandated by the JCAHO to participate in and lead healthcare performance improvement. Consequently, nursing education needs to make changes, in both theory and practice, in preparing students to fulfill their responsibilities as professional nurses in diverse healthcare settings.

In general, a review of the divergent literature revealed that a paucity of references were available for implementing Quality Movement concepts in higher education, especially nursing education. Yet, some literature in higher education added an intellectual discourse related to the TQM philosophy and postulates not observable in healthcare literature. While some educators make a good case for applying Deming’s TQM philosophy to higher education, actual research needs to be developed to substantiate their thinking. Currently, due to the limited scholarly research in TQM and education, academia is still hesitant to integrate TQM principles into their core curriculum and administrative practices (Falk, 1992). Therefore, additional scholarly research, by way of focus groups and surveys, may be useful
for testing the efficacy of the Total Quality Movement. Results of such research may be advantageous in preparing students for the future, both in nursing and in non-nursing fields.

Preparing students for the future has remained a challenge, as educational problems continue to be complex and deeply rooted in traditionally-bound social, political, and economic ideas. Student achievement not only continues to be influenced by socioeconomic status and ability, but also by: (1) the organization and climate of the school, (2) the amount of autonomy given to educators, and (3) how well the overall educational needs of the student are satisfied. Some educators have proposed a fundamental change in the American educational system, one which fosters creativity and greater participation by both students and teachers. Within this milieu of traditional concerns and changing realities, a need has arisen to examine both educational management and the teaching process. This is requiring an organizational culture change from the top down, assessing existing concepts and practices with proven success stories in business and industry. Restructured schools mean new roles and responsibilities for administration, teacher, and staff.

Within the TQM focus, as applied to various levels of the educational system, major foci for educational improvement have included: (1) measures of excellence and quality improvement defined by teaching philosophies, (2) customer satisfaction systems, and (3) organizational climates stressing prevention of errors and eliminating defects in the system for effective management. Accomplishing these goals requires that decisions be based on input from those closest to the educational system, students and teachers, using data from ongoing research. These principles have consistently been identified by TQM proponents as being necessary for actual change (Bonstingl, 1992).
Criticizing the paper America 2000: An Educational Study (as cited in Deming, 1993), Deming believes that the paper is based upon numerical goals, tests, and rewards, and offers no real methods for educational improvement. The paper's proposed method of improvements, management by results, is folly. He recommends radical changes, such as the elimination of letter grades and forced ranking of students. According to Deming, a grade is quality by inspection and serves as a permanent label, supposedly of future performance. Instead, it should be recognized that everyone has the desire to learn and joy comes from learning. In addition, he asserts that parents receive reports on how their children are progressing and reports on the work of schools, school districts, and states.

If radical changes need to be made, this could be achieved by the application of sociological, organizational, and individual behavioral theories within the quality improvement paradigm. Although diverse in their outlooks, the experts in organizational quality improvement, W. Edwards Deming, Philip Crosby, Joseph Juran, Stephen Covey, Peter Senge, Karl Albrecht, and Patrick Townsend, share common concepts that include: (1) teamwork, (2) a new culture, (3) customer priority, (4) a definition of quality, (5) continuous learning, (6) measurement, and (7) individual responsibility. Additionally, these concepts can assume a macro-quantitative and micro-qualitative perspectives, facilitating research and implementation at the individual or group levels within the organization. Both perspectives can be utilized in restructuring the management and processes of any organization, and thus, for instance, may be the foundation for a significant change providing for school quality. In terms of the micro dimension of TQM, all changes were worthwhile if the student, family, and community's educational needs were satisfied (Gaffke, 1994). Understanding school-
related behavior in relationship to the quality improvement and organizational theories was a component of the basis of school reform. The complexity of the school system and reform was enormous and could be overwhelming. Yet, some schools have been using quality improvement methods to attempt a change in the quality of education. How one defines quality and effectiveness in education is still debatable; yet at some time, to be useful, the concepts must be defined within certain parameters and contexts. Goals and directions need to be decided and tested; quality education could, for instance, be defined by students or families themselves. Such an approach is based upon Deming's philosophy that, in searching for quality, students should be asked if their classes were valuable enough for them to work hard and perform quality work. Students should be asked what quality is, where they have observed it, and how they know what it is (Glasser, 1990). Simply stated by philosopher Ralph Emerson, "the secret of education lies in respecting the pupil" (as cited in Bledstein, 1978, p. 267).

In conclusion, as the Quality Movement evolved from the early quality proponents into healthcare and education, its history has demonstrated the need for: (1) new quality approaches, (2) refinements of the original concepts, and (3) different combinations of ideas. This has been the result of multiple perceptions and interpretations focused on the same phenomenon. Subsequently, there has been continued innovation and application of quality concepts, now most commonly referred to as Continuous Quality Improvement (CQI) in healthcare settings or Total Quality Management (TQM) in education. These designations are, for all practical purposes, related to the same quality concepts. This difference in terminology is partly due to the fluid definition of quality.
The exploratory and descriptive analysis of the historical background of the Quality Movement has given evidence of its origins in industry to its applications to healthcare and education. These three sectors have varied in their motivations for implementing quality improvement. Industry reacted to the quality crisis in manufacturing; healthcare responded to the challenge to provide both quality care and cost-reduction; and education acknowledged pressures to reform its policies and practices. Each of these responses have incorporated numerous TQM or CQI concepts, basically interacting similar concepts from a slightly different perspectives. America has been striving to find quality in products and services, be it a car, banking, healthcare, or education. This more global search for quality might be a reason why the quality improvement philosophy has been considered by multiple social institutions, although, at times, the Quality Movement may not seem to be taking root in social institutions, i.e. industry, healthcare, and education, because of inertia to social change.

The present status of the Quality Movement and its probable progression into the twenty-first century can still be considered tenuous. The healthcare sector, for instance, may not necessarily give it the necessary support and value, as Deming had proposed, because this sector continues to lose jobs. Cost-cutting practices, that were initiated in the manufacturing industry in the late 1980s moved to healthcare in the 1990s. Correspondingly, some healthcare providers believe that quality of care is losing out to cost-reduction in response to healthcare reform. Although, there have been tremendous upheavals in the healthcare industry, a homeostasis effect may yet occur. Some organizations in manufacturing and the services continuing with the advancement of the Quality Movement may fare better, since an actual increase in quality may be resulting. Lastly, in the educational realm there have been
applications of quality theories, although they have been slow and are still awaiting evaluation. To promote the Quality Movement, especially in healthcare and education, both qualitative and quantitative assessments need to be conducted, determining the effectiveness of TQM or CQI in these respective settings.

What seems to have emerged from the exploratory and descriptive findings of the Quality Movement are an underpinning of sociological and educational concepts that have enabled the Quality Movement to be utilized by various social systems. Concepts are ideas derived from reality and expressed in words, (Miller, 1977, p. 29). Thus, sociological and educational concepts may be the distinguishing factors in determining if the Quality Movement will be a fad, or if a core of central concepts will emerge across disciplines and be applied to diverse settings in such a way as to facilitate and justify the central tenets of TQM. In chapter IV, the writer will explore the underlying sociological and educational concepts in the Quality Movement, compare, and contrast them, and analyze their utility for understanding the impact of TQM on the profession of nursing and nursing education.
CHAPTER IV

CONCEPTUAL RELATIONSHIPS IN THE QUALITY MOVEMENT

As a result of this exploratory and descriptive study, I propose that the Quality Movement is a social movement. This chapter compares the Quality Movement to the criteria of a social movement, providing evidence that it is, indeed, a social movement and not just a fad. Subsequently, key quality concepts emerge from the Movement's journey through industry, healthcare, and education. A synthesis of these emerging quality concepts forms a TQM conceptual framework, contributing to an understanding of TQM's driving forces and knowledge base. Furthermore, inherent in the TQM concepts are underlying sociological and educational concepts (Gaffke, 1992). These concepts are distinguishing factors justifying the central tenets of TQM and facilitating their wider, in-depth, future application to various disciplines.

The Quality Movement as a Social Movement

The progression of the Quality Movement parallels the life cycle of a social movement in the structure proposed by sociologists Malcolm Spector and John Kitsuse (as cited in Holt, Rinehart, and Neale, 1995). According to Spector and Kitsuse, the four stages in this life cycle are: "agitation, legitimation, bureaucratization, and institutionalization" (p. 420). In the agitation stage, a potential social movement surfaces, arising from the perception
of an existing problem and needed social change. The initial thrust of the social movement stems from a small group of people with a common cause, attempting to earn public support through creating awareness. Most commonly at this point, the potential social movement dies for lack of sustenance or resources. Looking at the Quality Movement in light of this first developmental stage of a social movement, the Quality Movement was born out of the perception that a lack of quality existed in American products and services. Since the 1940s a traceable trend focusing on quality improvement in industrial manufacturing, healthcare, and education has been occurring. Most notable since the 1980s is the American public's awareness of the quality issue. This awareness has been garnering support for the Quality Movement and its development as a social movement.

In legitimation, the second stage of a social movement, support for the social concerns and goals gains momentum with the public and their leaders. The Quality Movement is progressing to the legitimation stage because the common cause of improving quality products and services is growing as the public becomes more attuned to the issue and the goals of the Quality Movement. The acceptance by leaders in manufacturing, healthcare, education, and the communication media of the ideas of the quality gurus, such as Deming, Juran, and Crosby indicates that the Quality Movement is developing within the second stage of a social movement's life cycle.

In the third stage of a social movement, bureaucratization, a formal structure and organization of the social movement's activities evolves, addressing authority, policy, and future strategy issues. As a result of the Quality Movement's momentum, educational study groups and formal organizations are fostering the development of quality policies, standards,
and strategies. For example, the American Society for Quality Control, the American National Standards Institution, and the International Standards Organization act as educational and innovative resources to assess and develop quality systems for businesses. In addition, the Joint Commission for Accrediting Healthcare Organizations has recommended focusing on quality issues to improve healthcare and the government has directed the Agency for Healthcare Policy and Research to study quality care outcomes.

The fourth stage of the social movement life cycle is the institutionalization of a movement as an established practice within society. The exploratory and historical data on the Quality Movement set forth within this paper indicates that the Quality Movement is straddling this formative stage, as time has yet to determine its comprehensive impact on society. Although Spector's and Kitsuses's social movement life cycle theoretically has stages with clearly delineated criteria, in reality a social movement develops in various degrees in different social sectors, progressing accordingly. Nevertheless, the social movement life cycle criteria facilitate a comparative analysis of the Quality Movement to the development of a social movement, giving evidence that this Movement is not just a fad. The American quality transformation, as a social phenomenon of change, is creating an awareness of the necessity to improve quality in industrial products and services. However, needed research would assist in determining the developmental stages of the Quality Movement and the effectiveness of its tenets in various social sectors.
Key Total Quality Management Concepts and Inherent Sociological and Educational Concepts

In tracing the life cycle of the Quality Movement, through the manufacturing and service industries, education, and healthcare, it is noted that each sector ascribed a title to its collective application of the Movement's concepts. The seemingly different quality designations can be confusing to the public, leading to a waning interest in or skepticism about the validity of the Quality Movement. However, the most enduring terms encompassing the quality principles are: (1) Total Quality Management in manufacturing and education, (2) Total Quality Service in the service industry, and (3) Continuous Quality Improvement in healthcare. Although specific quality designations are identified with particular social sectors, each sector's designation embodies quality as its underlying concept and a common thread of shared concepts indicates a social paradigm shift over time. The resultant conceptual relationships create a conceptual framework, perpetuating the evolution of the Quality Movement. For the purposes of this dissertation, Total Quality Management (TQM) represents the main tenets of the Quality Movement because of its historical roots in the theoretical framework devised by W. Edwards Deming. Total Quality Management may mean applying quality concepts to influence behavioral outcomes, at the macro-level of an organization or at the micro-level of the individual.

The emergent, shared key quality concepts forming the conceptual framework of TQM are: (1) quality, (2) customer, (3) TQM as an organizational culture, (4) team and problem solving, and (5) continuous quality improvement. These TQM concepts dovetail into the underlying sociological and educational concepts: (1) the uniqueness of the individual, (2)
culture, norms, roles, and values, (3) groups and scientific problem solving, and (4) learning, and evaluation (see appendix A). Thus, TQM concepts are enhanced by underlying sociological and educational concepts, contributing to TQM's acceptance by and applicability to various disciplines and the concepts' longevity. Sociological concepts are deduced from the study of society, human behavior, and social interaction, wherein people interact and establish relationships within groups. Sociology focuses on social phenomena which are observable facts or events, viewing social life in a scientific and systematic way and gaining understanding of the hidden meanings behind human actions. For social beings, behavior is strongly influenced by social factors and behavior learned from others. A reciprocal relationship exists between the social environment and people, as the social environment shapes people and people shape the social environment. Through education, individuals are socialized into society by the transmission of norms, values, and roles.

Moreover, the study of sociology includes the interactions of societal processes with social systems such as: (1) education in the sociology of education, (2) healthcare through medical sociology, or (3) individual behavior in groups by social psychology. Educational, sociological, and healthcare concepts intertwine. The humanistic component of TQM is associated with the social institutions, such as education and healthcare. Thus, understanding the sociological and educational concepts underlying the TQM conceptual framework adds greater depth, meaning, and acceptance to the theoretical orientations of TQM.
Quality: A Quantitative and Qualitative Synthesis

The multifaceted quality concept is the cornerstone of the Quality Movement. Quality is both a philosophy and an action, necessitating an understanding of its theory prior to implementing it. This sequence of events is supported by Covey (1990), who proposes that creation takes place twice: first in the mind and, second, physically or in practice. In addition, quality is both quantitative and qualitative in nature. Its quantitative element resides in the use of statistical tools and scientific problem solving; its qualitative nature derives from its humanistic tenets. Because of the different emphases and perspectives with which various aspects of quality are approached, attempting to determine a single definition of quality by quality advocates is unlikely.

Each quality proponent offers his own definition of quality. Deming (1993) accepts the fact that "anywhere is quality . . . and a product or service possesses quality if it helps somebody and enjoys a good and sustainable market" (p. 2). Deming (1986) infers that concepts are too abstract and recommends that quality be operationally defined to achieve clear, consistent communication and measurability. According to Deming, statistical methods and his problem-solving method are tools to enhance quality. He also indicates that quality is an action which assumes a meaning in terms of the customer, focusing on the customers' present and future needs. Quality is relative in terms of the agent judging it. Quality is built in at the time of performance by the individual. Therefore, there is only one chance to instill quality into a product or service. Deming's idea of the individual's impact on quality is similar to that of Robert Pirsig's (1974), the thought-provoking writer of Zen and the Art of Motorcycle Maintenance, who defined quality or achieving excellence as being attained by a
person at the time of performance through the attitude of caring and the motivation by values. Upholding Pirsig's caring definition of quality is Senge (1990), who confirms that caring is related to quality since caring is personal and rooted in an individual's set of values, concerns, and aspirations.

Other early quality proponents have attempted to define quality. Juran (1988) believes that quality has multiple meanings with the long-range goal of perfection. Quality is grounded in a product's performance and is the reason for the product's purchase. It also means a product that is free from deficiencies. Juran simply defines quality as "fitness for use" (p. 5). Lastly, another early quality proponent, Crosby (1980), earmarks "quality as free . . . what costs money are the unquality things" (p. 2) and conforming to product requirements with zero defects. To him, quality is doing the work right the first time.

Contemporary quality advocates offer their definitions of quality. Covey (1990) distinguishes quality as the continual renewal of personal growth through his seven habits, which equally apply to individuals and organizations. In Senge's (1994) learning organization, quality is achieved as people continuously learn how to learn together, resulting in innovation. To Albrecht (1992) and Townsend (1990), quality is customer-service focused because it is acquired through direct interactions with the customer.

In healthcare, quality is explained in relation to the care provided directly or indirectly to the patient and family. The Institute of Medicine (IOM), a private nonprofit organization under congressional charter to the National Academy of Sciences, shared their perception of quality healthcare. The IOM believes that quality in healthcare addresses the extent to which healthcare services for individuals and populations increase the probability of achieving
desired outcomes and are in agreement with current professional knowledge (Lohr, 1990). A quality definition from the healthcare sector that mirrors Deming's ideas is one in which the quality of care is determined by the interests of those making the judgment (O'Leary, 1993).

According to academic affairs administrator Chaffee (1990), attempting to find a single definition of quality may actually be a barrier to quality improvement for an educational institution. If an educational institution focuses on determining a full, consensual, unitary definition of quality rather than acting to initiate improvements, then the institution does not progress. Chaffee holds that "defining quality is a process of successive refinements that only can be accomplished through action and application. No single definition can accommodate either the richness of the term or the diversity of contexts in which it is applied" (p. 61).

Remaining within the educational context, quality educational advocate Glasser (1993), in The Quality School Teacher, refers anyone attempting to define quality in education to ask the students. He believes that quality in education is achieved when the students know what and how their studies increase quality in their lives. He believes that it is not difficult to define quality because it is anything that an individual experiences that is consistently satisfying one's basic needs for love, power, freedom, enjoyment, and survival. Another educational definition which can be related to quality is the search for effectiveness in education, brought to the forefront in education since the 1970s (Ornstein and Levine, 1993).

Elements of the quality concept have been sought for many years in various disciplines, including sociology. One of the founders of Sociology, Max Weber (as cited in Parsons, 1968), utilizes the concept of ideal type to describe the essential characteristics of some aspects of society or of a phenomenon. He also believes in the importance of the
individual's thoughts and feelings. Weber proposes a \textit{verstehn} method that is an "understanding directed towards the 'meaning' of social action" (as cited in Miller, 1977, p. 24). Through an empathetic understanding, the meaning of a person's actions becomes possible by seeing another through their eyes. In addition, sociologist Talcott Parsons (1964) associates quality with maintaining the family as a collective unit in an "appropriate style or pattern of life" (p. 48). He also links quality-performance with the professional role. The ideas of both Weber and Parsons are associated with: (1) establishing an ideal product or service, (2) defining essential characteristics and standards, and (3) meeting the needs of the customers. Visualizing needs through the eyes of the customer and quality in performance of one's professional role also relate to education and healthcare.

Defining quality can be confusing and overwhelming because of its complexity and scope of application. In society, quality is sometimes likened to seeking perfection which is never attainable. Phrases such as quality of life or quality in goods are used loosely and saturate marketing and advertising media. Various social sectors, such as the manufacturing industry, define quality to meet their own needs. Although the manufacturing industry has tried to define quality in a quantitative light through tangible products and measurement with statistical data, quality has elements which are intangible, humanistic, and qualitative. In society there seems to be a search for a higher value, a seeking to fill a desire or void to attain fuller satisfaction in life.

Reviewing the definitions of quality and underlying concepts as advanced by notable proponents in various fields indicates that there are really two major components of quality: (1) a technical side with statistical control methods and (2) a humanistic side. A synthesis of
both elements within quality theories creates a powerful capability for organizational quality transformation. Quality is an organizational endeavor beginning with each individual in every step of producing a product or service, anticipating the future needs of those served. Fundamental shared values in the definition of quality are (1) meeting the customers' needs (2) continuous improvement, and (3) quality being relative to the judging agent.

The Customer and the Uniqueness of the Individual

A term in the language of TQM and a vital element within the definition of quality is the customer, the agent judging quality. Traditionally, the term customer is associated only with businesses, not with healthcare or education. Thus, the term may sound foreign to most persons who may meet its use outside of the business sector with resistance. However, the term customer denotes some type of exchange involving services, products, money or other resources and, indeed, such exchanges occur in healthcare and education. Thus, the term customer might serve as a reminder to non-business persons that customers have expectations of receiving quality services for their financial investment, as patients or students. Although the term customer may sound businesslike, this financial-service exchange expectation should, at least, be taken into consideration by educators and healthcare providers.

The essence of the concept of customer within TQM consists of: (1) identifying the customers, (2) identifying their needs, and (3) then meeting their needs, thus transforming quality from a belief into an action. Deming (1986) confirms that the prime focus of any business and service is the customer. Moreover, Juran (1988) expands the term customer,
differentiating between the internal customer or all employees, and external customers which includes purchasers and suppliers. Juran believes that employees are customers of one another. This awakens the notion at all levels that each is serving others with a helping attitude, versus engaging in competitiveness or the accumulation of power. Thus, the interrelationships among all employees, both staff and management, assume a greater significance, contains potential capacity for greater personal reward and satisfaction, and foster teamwork and shared visions.

Meeting customer's needs is the essence of TQM, yet TQM dons a sloganlike tone. The customer-first focus sets the goals for the organization and the individual employee. Thus, it is not the shareholders of the corporation that are of prime importance, but the customers. With this in mind, all stakeholders in the corporation will benefit from this goal and thinking in the long term. Inherent in the customer concept is a set of values demonstrating that the customer is served and respected. These shared values act as a foundation building trust in the relationships among internal and external customers.

The other quality proponents discussed herein also agree that the employee is an internal customer and is valued as such. Inviting employee participation in decision making, empowers the employees. Empowerment means recognizing and bringing forth the potential of each individual's knowledge, skills, and thinking. Therefore, the employees true workplace is the workplace of the mind.

The sociological view of the uniqueness of the individual is a concept that Deming (1986) adopts when he talks about valuing individual abilities and about the potential of untapped human resources. Covey (1989) and Senge (1990) emphasize the individual as the
foundation of an organization and the value of the uniqueness of the individual. The importance of initiating continual renewal begins for Covey with his individual inside-out approach and for Senge with personal mastery. Covey paraphrases Goethe's saying that if one treats a man as he is, he will remain as he is, but if one treats him as he can be, he will become as he can and should be.

A related concept from the self-development field is the self-fulfilling prophecy as discussed by sociologist Robert Merton (1968). According to Merton, a self-fulfilling prophecy occurs when a person behaves in a manner which is based on false conceptions, and so behaving makes those conceptions become true. This is a common form of thinking and results in creating the conditions that fulfill the predictions. However, Merton takes the stand that humanity can combat self-fulfilling prophecies by exercising its ability to control individual and collective actions. Merton also refers to American sociologist, W. I. Thomas's "Thomas Theorem" which proposes that if "men define a situation as real, they [the situations] are real in their consequences" (p. 475). These ideas are applicable in developing one's personal-and work-life concepts of quality.

According to Covey (1989), an individual's uniqueness develops over time. A person possesses self-awareness, the ability to look within one's self and see how others view him or her. Thus, a person can understand what affects one's paradigms. Furthermore, an individual's personal security comes from living a life of integrity and reflecting one's values in daily life. A life of integrity is the fundamental source of personal worth and intrinsic security comes from effective living, defined as serving and helping people in a meaningful way. Consequently,
work is an important source of that contribution, creativity, and making a difference in people's lives.

For Senge (1990), personal mastery adds to the uniqueness and value of the individual. He explains how an individual can gain a special level of proficiency through personal mastery. Mastery is a level of proficiency that can be achieved in every aspect of one's personal and professional life. It consists of having a purpose, a vision, and a goal as well as a sense of being connected to others and to life itself, without sacrificing one's uniqueness. Personal mastery can be seen as a process, a learning mode, and a life-long discipline.

The underlying concept of the value of the individual customer is the uniqueness of the individual and the development of the social self, as discussed by various social scientists. John Locke (as cited in Knoebel, 1988), an English philosopher, wrote In An Essay Concerning Human Understanding that each person is born with a tabula rasa, a clean slate. All ideas come from sensation and all knowledge from experience, thus shaping the person. Locke's early recognition of the significance of socialization is important in the sense that it has become one of the central concepts of the social sciences. Through socialization, a person gains a sense of being a distinct member of society (Thomas, 1995). Talcott Parsons (1964) broadly summarizes socialization to be "the development in individuals of the commitments and capacities which are essential prerequisites for their future role-performance" (p. 130). He notes that certain collectives are the vehicles for socialization and include the family, informal groups, educational and religious institutions, the workplace, and even smaller social systems such as a school class.
Charles Horton Cooley, founder of the interactionist perspective in sociology, developed the ideas of the primary group and the looking-glass self. In the looking-glass self, an individual develops an image of him/herself through others. Others reflect back, as a mirror, the image of their reactions to the individual's behavior. An individual compares the other persons' reactions to his or her own analysis. Consequently, being cognizant of one's own perceptions and the reactions of others assists in the development of how one feels about oneself (Thomas, 1995).

American sociologist George Herbert Mead agrees with Cooley. Mead adds to Cooley's thinking his theory of socialization and the individual in Mind, Self, and Society: From the Standpoint of a Social Behaviorist (as cited in Thomas, 1995). After seeing one's self through others, a person may take on the roles of others. Thus, role-taking forms a basis of socialization by anticipating what others expect of a person, and learning to view oneself through others. A person internalizes attitudes and expectations from those closest to the person, such as significant others, and from society, or generalized others. Therefore, through role-taking a person develops a sense of self, the "I" which is the self-interest component of the personality. The "me" is the socialized self, influenced by the expectations and attitudes of society. Both aspects of our personality are necessary for a well-rounded individual. Personality, then, is the composite of a total human being's attitudes, behavior, and values.

Other well-known social scientists have contributed to understanding the development and value of the uniqueness of the individual. Jean Piaget (as cited in Mussen, Conger, Kagan, and Huston, 1984) generated a central thesis that the individual is curious, active and inventive through the life cycle, focusing on cognitive growth and development.
Lawrence Kohlberg, in the *Moral Stages and Motivation: The Cognitive-Developmental Approach*, amplifies Piaget's work with a developmental theory of moral judgment (as cited in Mussen et al., 1984). Also, Freud's five stages of personality development and Erikson's individual developmental theory, which spans the life cycle in eight stages, add to the understanding of a personal growth (as cited in Berginer, 1986). Therefore, throughout life a person develops a sense of self and a conscious awareness of possessing a distinct identity, separating one person from another as a member of society. Sociologist Pitirim Sorokin (1962) states, "the passage of an individual from one age-division to another denotes not so much the physical changes in his organism as the changes in his personality and his sociocultural roles" (p. 716).

Thus, the understanding of the uniqueness of the individual in TQM is applicable to satisfying external and internal customers' needs. The qualitative nature of TQM, emphasizes the value of the individual being served and of the individual as a human resource in the organization. The essential value of the employee's contribution to the organization is based upon their unique intellectual capabilities.

**TQM as an Organizational Culture: System, Culture, Norms, Roles, and Values**

To achieve TQM, a complete organizational culture transformation is necessary. This fundamental idea is supported by all the quality proponents previously discussed Deming, Juran, Crosby, Covey, Senge, Albrecht and Townsend. To understand quality as an organizational culture, it is necessary to clarify terms and their relationships, beginning with the term organization. According to organizational theorist Chester Barnard (1968), an
organization is "a system of consciously coordinated activities or forces of two or more persons" (p. viii). A 1939 definition of organization that still is quoted was written by organizational theorist J. D. Mooney (as cited in Northcraft and Neale, 1994). He describes an organization as "a human association and complete body with all its correlated functions, [processes, practices, procedures, and relationships]. . . . to coordinate human talents and efforts toward a common purpose" (p. 4).

Sociologists use the term formal organization in reference to a complex secondary group such as businesses, schools, and hospitals formed to achieve specific goals within a social structure. Since the time of August Comte, the founder of sociology, sociologists have viewed society as a system of interrelated parts, yet the concept of social structure remains somewhat loosely defined. Social structure is a network of interrelated statuses and roles which direct human interaction. Roles are expected behaviors of someone in a defined position in a group or society or their status. Thus, a social institution is a system of statuses, roles, values, and norms organized to meet basic needs of society, which include economics, education and healthcare. Society is described as a group of mutually interdependent, organized people sharing a common culture or as a composition of institutions (Thomas, 1995). Sociologist Talcott Parsons defines a social system as "a system of the actions of individuals, the principles of which are roles and constellations of roles" (as cited in Miller, 1977, p. 19).

From another sociologist's perspective, James Coleman, in Foundations for Social Theory (1990), relates that a social system can be a unit of various sizes; a dyad, society, or world system with parts that relate to each other. Furthermore, individuals are component
parts and members of the system. Coleman applies this concept by indicating that because system behavior is a result of the actions of its individuals, it is more useful to implement interventions, such as policies, at the lower level of the system. In addition, Talcott Parsons (1964) defines the school class as a social system, a significant unit in itself. These concepts demonstrate the complexity, levels, and interrelationships of society, social systems, institutions, organizations, and the individual. Therefore, when discussing TQM as an organizational culture, it is important to acknowledge the concept's complexity in terms of these related sociological concepts.

Another sociological concept related to TQM is culture. A culture is a total way of life involving the sharing of physical objects as well as values, beliefs, and behaviors. Components of culture are norms, roles, and values. An organizational culture also contains these components. Organizational culture is a system of shared values concerning what is important, beliefs about how things work, which produce the norms and expectations of performance. The culture of an organization dictates the behavior and decisions of the people in it. The organizational culture includes: (1) a shared philosophy, (2) an attitude toward employees, (3) leaders, heroes, and rituals, and (4) future directions of the organization. A goal of TQM is to create a change in an organization's present culture to achieve the quality transformation.

According to the quality proponents, to achieve a TQM culture there needs to be a complete organizationwide immersion into its concepts. Deming (1986) calls not only for an organizational quality transformation, but also for a quality cultural revolution in American management of economic, educational, and healthcare institutions. This new management is
committed to the personal welfare of the employees, which is necessary prior to encouraging employees to produce quality. While this endeavor could take decades, Deming proclaims that he provides a conduit for the quality transformation through his theory of management, the Fourteen Principles for a quality transformation.

Juran (1989) agrees with Deming's (1986) call for an organizational culture of quality. Organizational leadership employs human behavior to achieve results. Thus, leaders need to understand the motivation for behavior called cultural patterns. Juran indicates that a "cultural pattern is a body of beliefs, habits, and practices that the human population has evolved to deal with perceived problems (p. 298). To Juran, multiple societies exist in a large company with various perceptions and cultural patterns. Each society requires new members to adapt to the perpetuated cultural patterns. Juran (1988) also subscribes to "Company Wide Quality Management" which is "a systematic approach for setting and meeting quality goals throughout the company" (p. 244). Crosby calls for a cultural quality revolution in organizations, while Covey affirms a continuous renewal of both individuals and organizations. Townsend (1990) claims that quality is validated when it is implemented in an organization. Albrecht (1992) reinforces that a TQM culture is ingrained in an organization when employees are committed to quality. Lastly, Senge's (1994) learning organization is a culture of continuous learning and betterment.

Sociologists speak of norms, roles, and values, as components of culture. Norms are shared rules of conduct that tell people how to act in specific situations. They are unstated rules governing and regulating group behavior, created by groups to enforce their cultural values. Although norms are expectations of behavior, they may not necessarily be followed by
the individuals in the group. Norms are either folkways, which have little significance and few consequences attached to them, or mores, which hold moral significance, with non-conformance resulting in endangering the stability of society. Lastly, norms could be formalized into laws, written rules of conduct enforced by the government. Norms, in these various forms are also applied to groups, governing their behavior and their work. The structure of the group interaction is apparent in the rules and norms that define acceptable behavior (Thomas, 1995). For example, Deming (1986) laid down his Fourteen Principles for management and organizations as expected behaviors; and, Juran (1989) issued his ten points for leadership, involving an awareness of opportunities for improvement, goals, education, communication, and annual improvement as part of the system and processes.

Norms are closely associated with roles. "A role is the behavior - the rights and obligations - expected of someone occupying a particular status" (Thomas, 1995, p. 68). Roles are a set of all behaviors socially defined by a group or society. Roles are inherent in any social institution. In organizations that produce a product or service, expected roles are determined. Roles could be formal or informal. In work organizations, the formal roles are described in job descriptions, the itemizations of the duties that must be performed and the bases of a person's evaluation (Northcraft and Neale, 1994). Important organizational roles enabling employees to create a change toward quality improvement are their roles as team members and leaders.

The role of leadership in a TQM culture is vital for implementation. All quality proponents appeal to organizational leadership to commit and lead in quality improvement. Deming's (1986) Fourteen Principles for quality transformation are mandated as leadership
qualities, as his modern principles of leadership will lead to quality transformation. Deming's ideas are in concert with those proposed by Juran's (1989) quality leadership roles. Juran provides strategies to attain quality leadership. For Juran, the leadership determines the cultural patterns for and their impact on the organization that is implementing a companywide quality program. Senge's new roles for leadership (1994) and Covey's (1990) principle-centered leadership are in accord with Deming and Juran.

Senge (1994) envisions new emerging roles for leaders in learning organizations such as researcher, designer, steward, and teacher. The researcher role entails the understanding of: (1) the organization as a system, (2) driving external forces, and (3) trends. The leader-researcher understands that learning in a total quality environment involves all employees in continually analyzing and improving work processes.

According to Senge, traditional managers set direction, make decisions, and energize the troops, based on the assumption that people are powerless, lack vision, and unadaptable to change. Change can only be made by the leaders. These ideas are rooted in an individualistic and non-systemic worldview. In contrast, the new manager is a designer, leading by working through others, while achieving accomplishments on their own. Working behind the scenes, the leader-designer receives little credit, but receives deep satisfaction in empowering others to produce results. Real designers are always trying to understand the wholes, the integration of internal and external environments.

Stewardship becomes a leadership role by having a sense of purpose and guiding ideas, values, a mission, and core values. The traditional organization provides the means to satisfy the lower levels of Maslow's Hierarchy of basic human needs, such as those for food,
shelter, and clothing. However, leaders as stewards in learning organizations address the higher order of Maslow's Hierarchy: the needs for self-respect and self-actualization. The leader is a steward listening to others' visions and ensuring they are part of the larger organizational vision.

Another role for Senge's new leader is that of a teacher, fostering learning for everyone and helping them to develop systemic thinking. The teacher-leader defines reality, helping people achieve more accurate, insightful and empowering views of reality. They assist people to view reality at four levels: (1) events, (2) patterns of behavior, (3) systemic structures, and (4) a purpose. Traditional organizations focus on events and patterns of behavior, predominantly reactive and less generative. Learning organizations and leader-teachers focus on systems structure and purpose, teaching people systems thinking and mental models. The learning organization, as an equalitarian organization, believes that all employees are associates, sharing in the organization and management, controlling their future, time, and destiny. Consequently, the leader-teacher understands that people learn what they need to learn to control their future and designs a learning process accordingly. Thus, the roles of teacher, researcher, designer, and steward are inherent roles in a learning organization culture aimed at achieving quality.

According to Covey (1990), to achieve a quality organizational culture an effective leader assumes a transformational role. A transformational leader is one who has referent power, charisma which others wish to imitate. This leader is inspirational and empowers others. Conversely, a transactional leader is a leader that is associated with social exchange,
tasks, and power resting in the reward system. Therefore, the transformational leadership role is necessary for a Total Quality Management culture.

Within the term culture, sociologists identify values, which are shared beliefs and a core understanding of what is important to a person or a group of people. French sociologist Emile Durkheim espoused the belief that shared beliefs and values are the elements that hold society together (as cited in Thomas, 1995). Beliefs reflect what is considered right or wrong, good or bad, and desirable or undesirable. Values determine the character of the people and the material and non-material culture they create (Thomas, 1995). Values are important in TQM, as endorsed by quality proponents, such as Covey (1990). He suggested that values can be constructive or destructive in nature, while principles are the foundation and guidelines for human conduct with endurance and permanent value. According to Covey, when there is a valuing of correct principles, truth exists defined as the knowledge of things as they are. Principles, including those of fairness, integrity, and honesty, govern human effectiveness and create the foundation for trust. A proactive person is driven by values that are internalized and will produce quality work, if that is valued. Thus, through a principle-centered life driven by values, a person becomes empowered to achieve a quality life.

Senge (1994), another quality proponent, strongly associates his concept of personal mastery within a learning organization to values. When practicing personal mastery, mature people hold deep values and makes a commitment to goals larger than themselves. There is a striving for accurate reality, delayed gratification, and attaining a full potential life. This is accomplished by focusing on a sense of purpose through a personal vision. Senge extends this same thinking to the idea of genuine caring, which is a natural commitment to what is being
done and to future accomplishments. In genuine caring there is a sense of energy, enthusiasm, and perseverance, for caring is inherent in one's work. Thus, the value of caring may be linked to one's quality in work. Lastly, Juran (1988) noted that needs and values are beyond the level of concern for quality in processes and products, but extend to internal customers. The internal customers, the employees, have an intrinsic need for job security, self-respect, and the respect of others. These needs are real, yet are seldom stated, or stated at best in subtle forms by individuals in an organization. Thus, recognizing the values and the needs of employees is important in a companywide quality undertaking.

In calling for total participation of an organization to form a TQM culture, the quality proponents view the organization as a social system. Since an organization's mission, vision, and values drive it, an organization with a TQM culture visibly includes quality in these written statements. An organization's complete immersion into a TQM culture is an illustration of the complexity of "interrelationships that exists among culture, society, institutions, norms, roles, and individuals" (Miller, 1977, p. 18).

A sociological and theoretical model that summarizes and demonstrates the interplay of TQM concepts with sociological concepts and theories centering on healthcare is the Society, Culture, Personality (SPC) Model-A Social System in Relation to Health Care and Demography (Fredericks, Mundy, and Lennon, 1973). According to Fredericks, et al., the SPC model illustrates the social "web", the socially meaningful interactions of society, culture, and the individual with the social system, status, role, stratification, demography, and institutions, with healthcare as an example. In addition, Fredericks, et al. claim that society can be viewed on a continuum somewhere between the two extremes, "Gemeinschaft", as
more characteristically rural, and "Gesellschaft" as more urban, as first defined by German sociologist Ferdinand Tonnies (as cited in Sorokin, 1969). Therefore, when applying TQM principles to healthcare, the relationships of these elements are affected, providing a macro and micro perspective and illuminating the complexity of TQM's applications possibilities and ramifications.

Yet, some organizational cultures are not only changing to a quality mode but also reacting to a postindustrial stage of development. Thus, an individual entering an organization undertaking a quality transformation will be subjected to a socialization into a changing organizational culture. Socialization into an organization is an interactive process in which a new employee learns the skills, values, beliefs, and behavior patterns of the organization. When an individual accepts a position in an organization, both sides bring a set of unwritten expectations, referred to as a psychological contract, based on the social exchange theory (Coleman, 1990). The psychological contract is the bedrock of the relationship between the individual and the organization. Employment is based upon the implicit exchange of beliefs, values, and expectations about the actions of the individual vis-a-vis the organization and the organization vis-a-vis the individual. This includes working conditions, efforts, requirements, and amount and nature of authority. The psychological contract is also based upon the exchange of contributions and inducements. This is a commitment of both in regard to loyalty by the employee and to steady employment by the company. The organization makes inducements through pay and compensation in exchange for the employees' contributions through work. There needs to be a balanced harmony, for the psychological contract is crucial to the ongoing relationship of both. If there is a perception that the contract is violated
by either side, job satisfaction decreases and a breakdown of communication takes its toll (Northcraft and Neale, 1994).

Deming is joined by all the proponents in calling for a quality transformation which requires change. In an organization there are two forces for change: (1) the internal, related to employees and (2) external, from social, political, legal, and technological elements. Internal sources for resistance to change are: (1) habits, (2) costs, (3) threats to power, (4) vested interests, and (5) uncertainty (Northcraft and Neale, 1994). Various theories describe the dynamics of change that are necessary to move forward in an organization. One of the most popular is that of Kurt Lewin (1948), with his three-phase model of change: (1) unfreezing, (2) movement, and (3) refreezing. His other model to assist in implementing change is his force field analysis. A major challenge to leadership in organizations is to balance the forces that encourage or demand change with these forces within the organizations resisting it. Thus, leaders need to recognize the need for change along with managing sources of resistance.

Since the Quality Movement inception in the 1940s, organizations have been adapting to multiple changes. Social changes include diversity in the workplace, dual working parents, organizational culture changes, down-sizing of organizations, multiple careers in a person's lifetime, and the age of information through cyberspace and computers. Given the ongoing nature of these changes, the effects of the current social, political, and economic changes on the Quality Movement and the application of TQM tenets are still unknown.
Team, Problem Solving, and the Group Concept

Team is another cardinal concept in the Quality Movement and TQM. Historically, the use of teams in industry began in the 1940's. The employment of teamwork was a natural outgrowth from the participative management mindset, as Deming (1986) noted. In the 1960s, the Japanese strengthened the power of teams by combining Shewhart's Statistical Process Control for variations and the Deming cycle, thus recycling the team concept through their Quality Circles as a structure for quality improvement problem solving. Later, the Americans applied these quality tools through their cross-functional quality improvement processes and project teams for problem solving and decision making.

Referring to quality teams, organizational consultants Katzenbach and Smith (1993) indicate that a team is "a small number of people with complementary skills who are committed to a common purpose, performance goals, and approach for which they hold themselves mutually accountable" (p. 45). Thus, the quality team concept is based upon the sociological concepts of group and group dynamics which have great depth and meaning as prime foci of sociology. For generations, sociology has been concerned with determinants and consequences of group cohesion. According to sociologist George Homans (as cited in Merton, 1968), in *Human Group* (1950) a group is a number of people who interact with one another within established patterns and characteristic social relations. Sociology centers on group determination of an individual's behavior, a person's thoughts, sentiments, and perceptions. Therefore, humans acting in a social frame of reference as group members is an enduring idea.
Sociologist Pitirim Sorokin (1962) adds to group theory by revealing characteristics of organized interaction, namely a group. Although he relates group characteristics to larger social groups, such as institutions, his ideas are applicable to smaller-sized groups, such as quality teams. Sorokin claims that group characteristics are inherent in the definition of a group: "a social group, being the totality of interacting individuals, is organized when its central set of meanings and values is somewhat within itself consistent and assumes the form of law-norms" (p. 70).

Robert Merton (1968) agrees with Sorokin's group characteristics. To Merton, the frequency of interaction is an objective criterion of a group. A second criterion is that the interacting persons define themselves as members. They assume the patterned expectations of interactions which morally bind them as members, thus regarding themselves as members of the group. Merton's third group criterion is that interacting persons are defined by others as belonging to the group. In formal groups, this affiliation is explicit; in informal groups it is often tacit, symbolized by behavior rather than expressed in words. Subsequently, groups require social interactions among members, sharing a common body of norms and values which sustain the interaction. A group can be a dyad or greater in size, sharing a common identity and interacting on the foundation of shared expectations. Merton adds that group interaction is dynamic and that groups vary in their degree of social power depending upon their completeness. Completeness is the amount of involvement of the members, as they move toward the norms of the group. A portion of group dynamics is decision making which allows for contrasting and comparing an individual's thinking with others within the group.

Malcolm Knowles (1959), an adult education theorist, supplements Merton's and Sorokin's
group characteristics with the idea that members of a group possessing a group consciousness, a collective unity, a shared purpose, interdependence in satisfaction of needs, and the ability to act in a unitary manner. Therefore, in comparing the concept of a quality team to the proposed group characteristics, the quality team assumes the characteristics of a group on a sociological plane. Quality team members interact in a unitary manner while sharing common values and norms, centering on improving work processes to meet customer needs, and achieving quality goals through problem solving.

The composite of the quality team reflects the TQM philosophy of decisions being made by persons at the point of service. The team is empowered by the organization, giving it the authority and accountability to make decisions which meet customers' needs. Because a decision is like dropping a pebble in the water, its impact radiates to other facets of the organization. Therefore, problem solving is best accomplished by those directly affected and with the knowledge of their work and its radiating effects. Although, the number of persons in a team is approximately ten, it is cross-representation that provides the needed global perspective for decision making. Often the composite picture of the team blends staff and management, bridging the gap between the two.

The quality team approach for problem solving embodies the simple belief that "two heads are better than one," multiplying the capability of brainpower through synergy. When there is synergy among quality team members, it stimulates creativity and innovation. Consequently, problem solving becomes a challenge and achievements result in individual and group satisfaction along with pride in work well done. In successful quality teams mutual respect, trust, and a sense of equality in status contribute to the team and motivate persons to
participate in future teamwork. The shared norms, values, and expectations of improving quality for customers binds the interacting team members as a group.

Tools for teams include the Statistical Process Control chart, which plots trends. Other quality tools are: (1) the cause and effect chart, identifying the inputs into the problem and possible contributing factors and (2) the flow chart, providing a step-by-step picture of the process and possible alternatives as the process steps are diagrammed. The Deming cycle and other simple tools are taught to employees for problem solving. Juran (1988) stresses the importance of quality planning and the processor team, which utilizes his TRIPROL tool. His tool identifies the input, process, and the output of the quality activity within the team roles of processor, customer, and supplier. Therefore, utilizing a variety of tools, the team analyzes the symptoms of poor quality and the unmet needs of the customers; hypothesizes regarding potential causes; tests possible solutions to eliminate the causes, and improves product or service quality. In essence, this describes the application of the scientific method of problem solving.

The problem-solving method for quality teams is linked with the scientific method of problem solving, for it applies simple statistical methodology, and a systematic method of identifying and testing possible solutions for improving work processes. For example, Deming (1993) refers to the Shewhart Plan, Do, Study, Act cycle as a cycle for learning and improvement of a product or process. The cycle begins with planning a change or a test to make an improvement. Then, the test is performed on a small scale. Next, the results are studied. Lastly, a decision is made to implement the change or repeat the cycle.
Historically, scientific problem solving is traced to John Locke who discussed the role of sensation in forming ideas and knowledge. He is recognized as an early proponent of empiricism, which relies on the senses for acquiring human knowledge. Empiricism is related to induction, which is the process of developing hypotheses from observed phenomena. Another educational influence, John Dewey, shares and develops Locke's ideas, advocating them as the scientific method, the testing of hypotheses by experimentation. For Dewey, the scientific method is a way of problem solving in which a learner applies a process to think reflectively, find a problem, research the information to solve the problem, develop tentative solutions, and tests those solutions to discover the answer to the problem (Ornstein and Levine, 1993).

To facilitate problem solving by teams, clear communication through a common language is needed. The TQM culture has language associated with it, and understanding its language is supported by the quality advocates. The importance of understanding the language for quality planning in organizations is reinforced by Juran (1988). Once the customers' need are identified, they are translated into the language of common terms by all process teams. Thus, the common language of TQM is beneficial for clear communication among internal customers, external customers, and the organization. Tools to aid in communicating among teams include glossaries, examples, and standardized measurements. Covey (1990) includes empathic listening as a cornerstone of continuous improvement for individuals and organizations because communication is the heart of all organizational behavior and the essence of effective interpersonal relationships. Lastly, Senge (1994) believes team language includes systems thinking, dialogue, and discussion.
Dialogue and discussion within the team leads to consensus decision making. In a consensus, everyone supports the decision, even though they may not be in 100 percent agreement. A win/win approach to achieving a consensus may present a sense of collaboration in the decision making. Then, it is not just one person's way, but a decision as a result of combined thinking. Through team dialogue and discussion the larger pool of meaning, only accessible to the group, is available. Through reflection and inquiry within a team, the unique view and decisions of the team is articulated. Achieving consensus is accomplished through participative openness, a focus on processes rather than on individual personalities, individual introspection, and a synthesis of group thinking.

An underlying catalyst generating teamwork and problem solving is trust. Trust is the feeling of security among individual members of the team that enables openness and synergy. Trust is one of Deming's principles, echoed by other quality proponents. Trust begins with a sense of security in one's own abilities and having a sense of integrity, a wholeness. Self-security and integrity precedes the trust that resides in a team. With a sense of trust, team learning and problem solving occurs. If trust is continually violated within a team, then the powerful production capability of the team is lost.

The quality team concept very easily relates to the sociological concept of the group. The team and group concepts are used in both healthcare and educational institutions, not only for decision making but also in therapeutic and teaching-learning modes. In addition, team problem solving is based upon the scientific method of problem solving frequently employed by both sectors. Consequently, the TQM team and the problem-solving concept
are not foreign to healthcare and education professionals, making the utility of the team concept more easily acceptable.

Continuous Quality Improvement, Learning, and Evaluation

As espoused by all quality proponents, the continuous quality improvement concept is implicit in TQM, encompassing the individual, the family, and the organization. It is a goal, a motivating factor, and an inherent capability. In the world of business, continuous quality improvement's goal is a product or a service which responds to customer needs. In healthcare, its goal is quality in patient and family outcomes of care, and in education it is quality in student learning outcomes. For an individual, the goal of continuous quality improvement means ongoing renewal of intellectual capabilities and spiritual growth. Continuous quality improvement also acts as a motivating factor for individuals and groups by generating an internal sense of momentum for achievement and betterment. Incremental accomplishments serve as motivating incentives to progress further. Due to ongoing growth and additional accumulation of knowledge, new perspectives unfold, generating new possibilities and adding to new thinking and learning. Humans have the inherent capacity to improve and learn, resulting in creativity and innovation on a personal, familial, and organizational level, if that is their choice.

All quality proponents validate the role of education in achieving quality transformation and continuous improvement. Individuals can receive education on their own and/or through their employment organization as the vehicle for growth. For it is through education and learning that growth occurs. Within a TQM organizational culture, an
employee's mind is valued; therefore, the organization encourages continuous informal and formal education. Personal and work-related skills are enhanced through in-service training and attending conferences or workshops. Education for employees includes knowledge of the organization's mission, vision, values, quality statistical tools, teamwork, and improvement knowledge. Employee education provides socialization into the organization's quality culture, roles, and norms. In valuing the intellectual abilities, knowledge, and experiences of the individual, as well as and their continuous education, the organization benefits from employees' capabilities and innovations.

Senge's (1994) learning organization naturally fits into the TQM culture. To Senge, learning not only involves a change in action or behavior, but generative, life-long learning. Individuals at all levels of the organization learn how to learn together, resulting in organizational innovation. The heart of a learning organization is the freedom to create results that are truly desired. As a result, generative learning is the desire to create something new with value and meaning to people.

According to Senge, not only individual learning supports organizational growth, but also team learning. Teamwork and its interactive process are in accord with the active process of learning. A change of behavior and growth in both individuals and the group as a whole gives evidence of team learning. Thus, team learning is accomplished on two levels. The first level is within the individual as personal improvement, moving from independence to what Covey (1989) identifies as interdependence, building relationships with others. Secondly, team learning is collective, evolving from group synergy. Learning as a team is most important within the Quality Movement and TQM, as Senge (1994) noted. Team learning is
the learning unit of the organization, its microcosm. The foundation for a learning organization is team learning, enabling the learning organization not only to survive, but to thrive in the future.

Also inherent in continuous quality improvement is the concept of evaluation. Quality evaluation is accomplished through feedback data from customers. The feedback serves as information to continuously improve on a personal and organizational level. Quality evaluation of products and services is gathered by various methods such as surveys, focus groups, quality audits, benchmarking, and evaluative quantitative and qualitative research. Juran (1989) maintains that evaluation of quality is accomplished through persons, indicators, assessment tools, and summaries of projects. To minimize the errors of individual human sensors evaluating quality, he recommends a review team skilled in statistical designs.

Evaluation is also commonly utilized in education for measuring the outcomes of learning. Evaluation can be defined according to a time frame; that is, summative, at the end of a period, and/or formative, ongoing. From the National Center for Higher Education, Peter Ewell (1991) indicates educational assessment is gathering evidence to guide continuous improvement, utilizing the TQM philosophy and methods. Both educational assessment and TQM emerge from perceived crises. Educational assessment originates from calls for reform and TQM in industry from a quality void. Since 1986, assessment in education has been a national movement seeking to create change based upon valid information. According to Ewell, evolving educational assessment practices at the organizational and unit levels are in concert with TQM tenets. The TQM tenets are collecting
information concerning processes and outcomes, along with ratifying the importance of
listening to the student, the customer.

Continuous quality improvement, learning, and evaluation share similar
characteristics. In general, through learning both individuals and organizations have the
opportunity for betterment. Learning improves the quality in one's personal life and work
processes, enabling continuous quality improvement. Also, evaluation measures the outcomes
of individual and organizational learning and the achievement of offering quality products
and services, so that continuous quality improvement evolves.

In summary, this chapter gave evidence that the Quality Movement is evolving as a
social movement. Because it is a social movement enduring over time, key TQM concepts
have emerged. These concepts are (1) definitions of quality, (2) definitions of customer, (3)
TQM as an organizational culture, (4) using teams for problem solving, and (5) continuous
quality improvement. The five major quality concepts act as a conceptual framework for
TQM. Underlying the quality concepts are sociological and educational concepts that assist in
facilitating and justifying the utility of the TQM concepts in disciplines such as education and
nursing. The sociological and educational concepts that are closely related to quality concepts
are (1) the uniqueness of the individual, (2) culture, norms, roles, and values, (3) groups, (4)
learning, and evaluation. These sociological and educational concepts are known to both
healthcare and educational professionals. Consequently, their understanding gives credibility
to quality concepts that seem to be born from industrial businesses. Thus, the quality concepts
may become more acceptable to other disciplines such as nursing.
In chapter V, the writer will discuss the interrelationships and synthesis of the key Quality Movement concepts, namely the TQM concepts and theoretical orientations, into the profession of nursing. Due to the healthcare reform, emerging challenges for nurses are appraised. Healthcare trends will be analyzed to prepare nurses to proactively meet healthcare needs for the twenty-first century.
Chapter V

THE INTERRELATIONSHIPS AND SYNTHESIS OF TOTAL QUALITY MANAGEMENT CONCEPTS INTO THE PROFESSION OF NURSING

The TQM conceptual framework and its underlying sociological and educational concepts which emerge from the Quality Movement has direct application to the profession of nursing. The profession of nursing was born from a social contract with society to meet its healthcare needs. Both nursing and healthcare are affected by political, economic, and social changes in society, such as the historically unprecedented 1990s healthcare reform. To analyze this healthcare reform and its implications for the nursing profession and the application of TQM, the five components of healthcare identified by Urban Institute researcher Dr. Burton Dunlop and addressed in his study of nursing home care is utilized (Dunlop, 1976; as cited in Fredericks, 1992). In addition, the application of TQM to healthcare reform is appraised. Relevant TQM concepts, theoretical orientations, and underlying sociological and educational concepts are analyzed and synthesized in relation to the profession of nursing and nursing roles in the twenty-first century.

The Definition of Professional Nursing

Nursing is a profession, a practice, and a discipline. The profession of nursing refers to the totality of the field's body of knowledge, scope of practice, and methods of regulation
in relationship to society. The practice of nursing encompasses both the art and science of applying specialized skills and knowledge to the multifaceted roles of all practicing nurses and nursing specialists such as anesthesiologists, clinical nurse specialists, nurse practitioners, and midwives. Nursing also includes educators, who supervise and teach nursing, and nursing administrators. The act of nursing is performed in a variety of settings, including medical centers, ambulatory centers, homes, workplaces, nursing centers, long-term care facilities, schools, managed care corporations, and community centers. As a discipline, nursing theory is continuously integrated into the practice of nursing so that individual nurses can provide care that facilitates the well-being of patients, families, and the nurses themselves (Bishop and Scudder, 1991).

The core work process of the nurse takes place in the workplace of the nurse's mind. Nursing, as a scientific discipline, utilizes the nursing process to provide holistic care to the patient. The nursing process, a scientific method of decision making, consists of (1) assessment, (2) diagnosis, (3) planning, (4) implementation, and (5) evaluation. As a part of the nursing process, a plan of care is established with the patient, the family, and interdisciplinary healthcare providers. The plan of care is coordinated, managed, and supervised by the nurse. The nurse provides holistic care, a mind, body, and spirit approach which includes the promotion, maintenance, and restoration of health, the prevention of disease or peaceful, dignified death. Nursing involves counseling, patient and health education, and patient and family advocacy, as well as administering medications and treatments.
Not only is the nurse a provider of care, but the nurse is also the manager of the care environment through the delegation of nursing care tasks to others and appropriate supervision. Nurses interact with other disciplines and departments creating collaboration and teamwork. Thus, nursing provides both direct and indirect care interventions (McCloskey, Bulechek, Moorhead, and Daley, 1996).

The essence of nursing is the humanistic and dynamic nurse-patient interrelationship. Recently, the ministry or caring aspect of nursing is being revisited by nurses. Caring is a personal involvement, encompassing the interrelationships between two or more persons, in which there is a concern for and taking care of others. Each person brings to the interaction their beliefs, values, culture, and personality. Caring is understanding the needs of others and the wholeness and richness of other persons. Therefore, caring is inherent in the patient-nurse relationship, whether the patient is defined as a client, family, group, or community. Moreover, the concept of caring could and should be extended to include professional relationships between nurses in practice, education, research, administration, and the global community of nursing (Freund, 1990). In extending the caring concept to other nurses, the profession is strengthened. Through this humanistic analysis of nursing, it is apparent that nursing's concept of caring corresponds with the definition of quality: addressing the needs of the customer, as an individual or in groups.

As a profession, nursing originates from a covenant with society to meet society's health needs. Through this social contract, society defines the profession of nursing's functions, scope of practice, responsibilities, authority, autonomy, and accountability to the public. As in social exchange theory (Colemen, 1990), in return, society expects responsible
nursing actions in accordance with public trust. Quality in performance is an expectation of a professional person, as noted by Talcott Parsons (1964). And the self-regulation of quality in performance is the core of the professional and societal relationship (ANA, 1995b). Outcomes of nursing performance and the effectiveness of interventions are measured by the recipients of nurse's actions, namely the patient, family, and community.

The underlying sociological concepts related to TQM are in concert with the underlying values and beliefs in the profession of nursing. Nursing is inherently value-laden, including the value of the holistic human being, the uniqueness of the individual, the patient's innate right to determine his/her healthcare decisions, and the patient as a member of the unit of society, the family. In addition, culture is an element that defines health and illness as human experiences. Therefore, the professional nurse-patient relationship is one of ministering, caring, empathy, and respect, assisting the patient and family to prevent illness and to maintain or restore health, or achieve a peaceful and dignified death.

Achieving the status of a profession is placed on a continuum toward becoming a full profession. A profession is created by a body of individuals in response to certain needs of society to meet those needs. In response to a violation of the contract between the profession of nursing and society, an individual practitioner can be denied the right to practice through the revocation of one's licensure. A profession can be described by Flexner's (as cited in Kelly, 1991) 1915 classic criteria, expounding on the required specialized expertise, autonomy, and service necessary for a profession, which includes (1) education in institutions of higher education, (2) ongoing enlargement of its knowledge base, and (3) continuous professional
growth. In the past, nursing, like education, has been perceived as a quasi- or semiprofession, defining a unique body of knowledge.

According to researchers Volmer and Mills in their 1966 classic writings on professionalism, there are types of professions: "old, new, semi, would be, and marginal" (p. 74). In keeping with this criteria, nursing is often perceived by other professions as being semiprofessional due to its technical practice and knowledge. However, nursing is progressing toward its development as a full profession. It is striving to develop a base of nursing related theories. And, even though there are three educational routes into nursing with unclear differentiation between practices, nursing continues to garner the power to control its own policies and practice. Subsequently, the recognition of nursing as a profession by society will come to fruition as nursing more extensively satisfies its contract with society.

**Healthcare Trends and Reform Based on the Five Components of Healthcare and Implications for the Nursing Profession and Total Quality Management**

Society is entering a milestone with the new millennium. The predictions into the year 2000 are abounding as to how society will change in terms of necessary adaptations, including the healthcare sector. Although predictions are unguaranteed projections into the future, some future trends are possible based upon research. Because social systems and institutions are interdependent, social changes affect healthcare, the profession of nursing, and education.

The frame of reference to analyze and appraise social healthcare changes will be the five components of healthcare. This structure serves as the means for the analysis of
heathcare trends and reform for the twenty-first century and the implications for the nursing profession and application of TQM. Professor Burton Dunlop's five components of healthcare are: (1) availability, (2) accessibility, (3) affordability, (4) continuity, and (5) quality (as cited in Fredericks, 1992).

Availability

The first healthcare component is availability, defined as healthcare that is obtainable for use by society. The major facets of the availability of healthcare that affect society are: (1) the national healthcare system and the model of delivery, (2) individual healthcare organizations, such as the hospital, ambulatory clinic, home care, and long-term care facilities, (3) the workforce, and (4) technology.

Prior to the late 1980s, the healthcare system only utilized the traditional medical model for the delivery of care. This model consists of a private, physician-patient relationship rooted in choice and trust. It is a private market model that is a fee-for-service exchange (Parmet and Enrich, 1994). At the same time, while physician specialists were proliferating, the profession of nursing was also advancing by increasing its demands for higher education. The primary delivery system site was in hospitals, and essentially, healthcare was a private responsibility with treatment decisions made between the patient and the physician.

However, since the late 1980s, a large segment of the public has been calling for healthcare reform diverging from the traditional medical model. Their rationale has been based upon the overspecialization of physicians; excessive patient diagnostic measures and treatment initiatives arising from fear of malpractice suits; and the attitude of the public and healthcare providers that insurance will cover expenses. This segment of the public wishes to
cut costly services; manage the utilization of services; make available alternative choices for less expensive healthcare; and promote preventive medicine.

Moreover, healthcare has become a big business, often referred to as "the healthcare industry", with the driving force being third party payers i.e., the insurance companies and managed care corporations. Healthcare organizations have been changing status from non-profit to profit organizations. The "corporatization" of some healthcare organizations has led to the establishment of stockholders and policies comparable to other corporations in the business sector. The "corporatization" of healthcare organizations is creating a healthcare delivery system that consolidates individual healthcare organizations into a single integrated healthcare network to meet the competitive healthcare market and profit margin requirements (ANA, 1995a, p. 3). Through acquisitions and mergers of individual healthcare organizations, national healthcare corporations have surfaced. The integrated, affiliated healthcare network benefits from sharing services and purchasing power, contracting by a single-signature, and influencing choices of managed care plans for patient and employee healthcare coverage. Further hospital consolidations are inevitable. Hospitals that do not contract for capitation coverage and the receipt of remuneration checks through managed care organizations face closure. Some hospitals with religious affiliations have found, as an added impetus for mergers, shared common traits, such as dedication to principles of their faith, along with TQM tenets (Cerne, 1994). However, the corporate-like efforts of hospital merger and networks to reduce costs and to negotiate capitation payments with insurance companies and managed care organizations are raising antitrust concerns (Bazzoli, Marx, Arnold, and Manheim, 1995).
If healthcare corporations are the future, then the culture of corporate thinking will follow. The characteristics of the changing healthcare workplace are identified with those previously seen in business and industry. Re-engineering, work redesign, restructuring, and downsizing or rightsizing are corporate strategies that are reshaping healthcare institutions. Re-engineering changes the work processes and leads to the introduction of new delivery forms, such as patient-focused care models. Work redesign alters the work and the workers through reassigning work responsibilities, multiskilling, and cross-training new or current personnel. Restructuring is a more global strategy leading to an overall change in the way organizational and industrial systems with the common goal of reducing labor costs. Downsizing refers to decreasing personnel or rightsizing, decreasing to the "right" size (Gaffke, 1994). Since corporate cost reduction and downsizing strategies applied to manufacturing have been used in healthcare, employees in healthcare organizations, as in other industries, have less loyalty to their organizations (Longworth, 1996). Restructuring corporations perceive their employees as being costly and, therefore, as liabilities to be reduced in number and hired on a short-term or temporary basis (Noer, 1993).

Consultants for transforming and restructuring organizations, Joseph Boyett and Henry Conn (1991), are predicting that future organizations will be flatter and leaner due to new technology. Large corporations will breakdown into smaller businesses. There will be corporations without walls, as the worksite moves into the home or wherever a computer will connect the worker to fellow workers and/or clients. There will be greater flextime and job sharing, along with more part-time positions. Organizational structures will be very fluid with no departments, and multidisciplinary and multiskilled temporary teams will manage their
own work processes. Future organizational leadership will reside primarily in teams with a few leaders external to the project teams (Boyett and Boyett, 1995).

These predictions for workplaces in general will be similar to healthcare organizations where the provision of improved curative and preventive care, made possible by new technology, will increasingly occur in ambulatory, community, and home settings to reduce costs. As teams of healthcare professionals provide patient care, the focus will shift from hospital systems to healthy communities and healthy people.

Another facet of the availability of healthcare is the workforce. The traditional professional workforce in healthcare has been composed primarily of physicians and nurses. Other healthcare professionals such as social workers, and occupational and physical therapists have grown in number, focusing on a particular aspect of care. The availability of healthcare providers seems to be cyclical in nature, responding to societal, political, and economic influences.

Organizational researchers have projected changes in the future of American organizations and their workforces. These changes will also influence healthcare organizations. Researchers William Johnston and Arnold Packer (1987) indicate that the American workforce for the twenty-first century will live in a national economy that will continue to grow at a fairly good pace. Manufacturing will be a smaller portion of the economy, being replaced with services which require a higher level of skills. The workforce itself will be aging as baby boomers grow older, with an average age near forty, and are replaced from a smaller pool of young workers. The diversity of the workers will increase the number of blacks, Hispanics, immigrants, and women.
Because of this diversity, the importance of appropriate educational preparation through the established educational system and on-the-job training of all workers will expand as the economy and technology become more complex. Most new jobs will require postsecondary education, with professions requiring nearly a decade of study after high school. The economy will grow as fast as the education systems can improve the efficiency of transmitting knowledge (Johnston and Packer, 1987). American education will need to prepare leaders who are life-long learners and who can lead and manage people in the future. The new leaders will be value-driven, build trust, and empower employees (Boyett and Conn, 1991).

The American workforce will be affected by the change in society and the family. Joseph Boyett and Jimmie Boyett (1995), organizational consultants, describe the working families of the future, in which there will be an increase of working mothers, divorce, unmarried mothers, single-parenthood, children in poverty, homeless mothers and children, and an aging society requiring increased elder care. Thus, nursing's workforce will be affected by these social changes.

According to Boyett and Conn (1991), flexibility, adaptability, creativity, personal management, innovation, and problem solving will be the qualities of the new American workforce. There will be an increasing emphasis in performing with speed, perfection, and a client-service focus as well as doing more with less. The need to possess broad experiences and knowledge will be a motivating factor for employees in a pay-for-knowledge work world, encouraging workers to develop multiple skills for multiple jobs. Learning to learn will be a high priority. Because of the uncertainty of jobs, workers will need to rely on their own
initiative to learn, understanding one's best method of learning and the powers of the mind. The successful employee will be one who is known for achieving results and for working within a cross-functional team promoting team learning. Team learning will be an interdependent learning approach utilizing group decision making through open dialogue (Bezold, 1992).

Not only will individuals be expected to engage in continuous learning, but organizational learning will also become a reality (Boyett and Boyett, 1995). Systems thinking and identifying key system leverage points for decision making will help build learning organizations. Continuous quality improvement will cultivate an environment for continuous learning (Bezold, 1992). Also, organizations will think about the implications of their learning and decision making in a global manner.

In comparing the implications of a changing American workplace for nursing, some predictions have already been made. Due to healthcare reform, organizations are bringing in unlicensed, multiskilled healthcare workers to supplement and/or replace nurses in an attempt to lower labor costs. Nurses are participating in teams and are expected to be flexible, floating to different units and being cross-trained to add skills. Thus, nursing is already feeling some effect of the workplace predicted changes as they are being affected by healthcare restructuring and healthcare reform.

Healthcare reform has spawned statements from groups interested in healthcare, expressing opinions on the complex issues affecting the healthcare system and policy making. The Alliance for Healthcare Reform's 1996 paper, The Twenty-first Century Nurse, provides a descriptive profile of the nurse and describes the nurse as the foundation of healthcare
delivery, citing statistics from the U.S. Department of Health and Human Services Reports of 1992 and 1995. Over 2.2 million nurses are licensed to practice and more than 1.2 million nurses practice in hospitals. The numbers of nurses working in HMOs, physician-based, or nurse-based practices have increased by 15 percent, in community health by 38 percent increase; and in ambulatory care by 68 percent (p. 5). Ninety-six percent are female with an average age of 43.1 years; and 9 percent of nurses are from racial and ethnic minority groups (p. 3). The Alliance for Healthcare Reform report states that the advanced practice nurse (APN) who has graduate education is positioned for future changes in healthcare. In 1992 there were approximately 140,000 APNs were educated with 53,000 practicing (p. 4). The APN consists of four specialties: (1) Clinical Nurse Specialists, (2) Nurse Midwives, (3) Nurse-anesthetists, and (4) Nurse Practitioners. The Alliance indicates that, due to healthcare restructuring, the U.S. Health and Services Administration predicts that by the year 2000 there will be an excess of about 150,000 associate degree nurses, but 400,000 more baccalaureate nurses will be needed (p, 12).

According to the Pew Healthcare Professions Commission Report of 1995, funded by the Pew Trust, 200, 000 to 300,000 hospital nursing jobs may be lost during the healthcare reform (p. 32). The US. Bureau of Statistics of 1995 (as cited in Alliance for Healthcare Reform, 1996) projects a significant growth in nursing employment, except in hospitals. Each state and community will be faced with achieving the right number and mix of educationally prepared nurses. In general, the urban areas, except inner city areas, will have a greater surplus of nurses than the rural areas. Consequently, policies that affect the supply, demand, and distribution of nurses need to be examined, such as public funding.
The development and introduction of new technological advances into nursing is strongly impacting the availability of healthcare. The most obvious of the technological advancements is the continued innovative and expansive use of computers, increasing the availability of information for communication, altering work processes previously requiring manual labor, and reducing barriers of time and distance affecting the place of work.

Healthcare will continue to benefit from advanced technology. For example, in the near future, through the use of computers and telecommunications, patients can be monitored at home by healthcare providers such as nurses. According to Peck and Olsen (1994), consultants from the Institute of Alternative Futures, the predictions for healthcare include the use of the electronic medical record containing personal medical information from birth and the person's DNA fingerprint. Computers will utilize an artificial intelligence to harvest information, and routine decisions will be pre-programmed. Computerized decision-support tools for healthcare providers will suggest diagnostic options and treatment patterns. Technology will be a pathway for faster learning, will allow better development of infrastructures for the continuum of care, and will enhance clinical quality outcomes (Bezold, 1992). Wedded to computer diagnostic tools will be biotechnological advancements, such as genetic screening and decoding a specific gene linked to an illness. As a result of the Human Genome project, a massive cooperative research effort by geneticists, a person's entire genetic make-up will be mapped, predicting diseases based upon genetic inheritance. In addition, molecular nanatechnology and new drugs from space and undersea laboratories will be available (Goldsmith, 1992). All of these advances will solve medical problems, but they will also raise management issues and create new ethical dilemmas.
These technological advances in healthcare availability represent just some of the revolutionary changes in healthcare. As a component of healthcare, availability changes also include the formation of new healthcare systems and services, and a future healthcare workforce responsive to the needs of the new systems. Yet, having new healthcare commodities available does not ensure that they are accessible to patients and families.

Access

The second component of healthcare, and a major problem, is access, the means to reach and receive healthcare. Analysis of current access to healthcare reveals flaws in the delivery of healthcare. Access to healthcare is possible if persons have the means to purchase healthcare themselves, or if it is purchased for them through the government programs of Medicare or Medicaid or through employers. Groups of persons that have less access to healthcare are the underinsured or uninsured. More than 25 percent of the population is uninsured at least some of the time in a twenty-eight-month period (Parmet and Enrich, 1994). The largest uninsured group is composed of persons under eighteen, consisting of 18 percent of the United States' population (Donley, 1993). In addition, some persons are uninsured because they are high risks to insurance companies.

Other factors contribute to the problem of access to healthcare. Because of malpractice suites, some access to obstetrical care may be limited. Access to healthcare providers and their services vary in rural and inner city areas. Ethnic and cultural influences also affect access, such as traditions in seeking healthcare for pregnancy and infant care. Seeking medical assistance through the emergency room due to a lack of a primary doctor, shifts the cost to the public healthcare system. Aside from public policy issues, this behavior
prevents the development of an ongoing physician-patient relationship with a doctor that creates a sense of trust and continuity.

In contrast to limited access, some persons have an over abundance of access to healthcare and may be overtreated, burdening the healthcare delivery system. Patients have become accustomed to the use of advanced technology, and the thought of rationing is problematic. Thus, some healthcare analysts indicate that because of healthcare access inequalities, healthcare is not equitably delivered to the population. Such delivery system defects result in persons receiving no care, inadequate care or overly-delayed care. Access to healthcare problems affect nursing and have implications for nursing. Nurses are aware of the problems because of their direct provision of care; lack of public access prevents them from providing their services to patients, families, and communities. Because of existing access healthcare policies or the lack of them, nursing organizations have politically voiced their concerns as patient advocates through such proposals and statements as *Nursing's Agenda for Healthcare Reform* by the American Nurses Association (ANA, 1991). An attempt to balance the accessibility of healthcare and its costs continues to be a battle for legislation to increase insurance coverage to more Americans (Kinsley, 1996).

In response to the lack of access to healthcare and in defining healthcare as a universal right, some healthcare proponents, including ANA, are proposing universal coverage through various guaranteed programs and financial methods. For example, universal coverage could be accomplished through the use of tax dollars, private payment, or insurance measures, or a blending of the three. The goal is to achieve universal access or coverage while retaining patient choice (Parmet and Enrich, 1994). However, an agreed-upon national
or universal healthcare program has not yet been developed. Meanwhile, healthcare reform attempts continue, stemming from public concerns over both access and cost.

Affordability

The third component of healthcare is affordability. Healthcare should be affordable for individuals and for society, as a whole. Financial cost, as a component of healthcare, has been the greatest driving force for healthcare reform by citizens, healthcare providers, the insurance industry, employers, politicians, the media, and federal and state governments. Factors increasing healthcare expenditures include: (1) general inflation, (2) excess capacity of hospital beds, (3) new technology and pharmaceuticals, (4) an aging population requiring increased medical resources, (5) increased specialization of healthcare professionals, and (6) medical advances increasing the longevity of patients with chronic diseases. As healthcare expenditures in the United States continue to rise, there exists the probability of healthcare exceeding 19 percent of the Gross National Product by the year 2000, as indicated in the 1993 report Health Security: The President's Report to the American People (as cited in Parmet and Enrich, 1994). There has been a failure to control the costs of healthcare due to complex social, economic, and political factors. Even though the United States has the best healthcare, healthcare providers, and technology of any nation, this healthcare may not be accessible or affordable to all citizens of the United States.

Traditionally, the patient-physician service was paid by the patient in a fee-for-service. As insurance coverage became an employer-provider benefit more physicians and healthcare organizations were paid through third-party payers, the insurance companies.
Through the enactment of Medicare and Medicaid, the federal and state governments also began to pay for healthcare.

There has been a general call for change in the method of payment for services and reform in health insurance coverage. The cries for healthcare reform, based upon cost reduction, have been the loudest. In response, various healthcare strategies have arisen and taken hold in the healthcare sector. Cost containment and reduction strategies are reconfiguring the healthcare system and delivery. A mode of treatment is deemed good for the patient, if it demonstrates cost reduction or is at least cost neutral (Donley, 1993). Another cost reduction strategy is transferring patients to facilities which are, at this time, lower in cost than are acute care hospitals, promoting a greater use of facilities such as nursing homes, sub-acute care units, and specialized care facilities for chronic respiratory patients. Home care is rising dramatically as patients are being discharged earlier to reduce hospital costs. Such strategies are based upon viewing patient care as a cost rather than as a revenue generating activity for physicians and healthcare organizations.

Cost reduction and access initiatives have spurred the development of managed care. Managed care is an alternate system of healthcare delivery and financing to the traditional fee-for-healthcare service system. In the fee-for-service system, the physician or hospital received money for rendering a procedure and service to the patient. The major objective of the managed care system is to contain healthcare expenditures while assuring access to and appropriate utilization of high quality, cost effective healthcare services. Care and cost, then, are managed by controlling the selection of healthcare providers and the utilization of services provided through an organization that offers a healthcare plan covering its members. The
members choose from a company-approved network of doctors and healthcare services, including hospitals, who have agreed to fixed charges for services. In a managed care contract, the healthcare providers' source of revenue, from the prepaid capitated payment by the insurance companies, dwindles as patients use healthcare resources paid from the providers' pool of money. Capitation is "covering an insured life or individual as part of a defined population on a prepaid basis, which is the provision of an agreed-upon amount of money for integrated healthcare over a period of time" (Hughes, 1995, p. 8). Therefore, theoretically, preventive care could save money for the healthcare providers.

According to Edward Hughes (1995), a physician and healthcare policy maker, in 1929, the HMO as a managed care system was an American invention. Managed care "is a process of, or for, the application of standard business practices to the delivery of health care within the American free enterprise system" (p. 7). This system provides management of and accountability for the clinical and financial outcomes of care for defined populations. Hughes believes that managed care is based upon the theory that, just as in any industry, a mix of factors must be adjusted to optimize revenues and outcomes. To determine the appropriate mix of inputs, the health production process is analyzed by monitoring the costs and healthcare outcomes connected with the factors of production. Then, the mix is adjusted. Managed care doctors and hospitals are rewarded through prepayment or prepaid on a capitated basis and for spending less, while attempting to maintain quality care. Thus, "managed care firms, like firms in other industries, must strive for both quality and cost improvements by substituting healthcare inputs that are equivalent in quality but more cost effective" (p. 7). For example, there may be a substitution of a healthcare visit to an
ambulatory site for a hospital site, "a visit to an advanced practice nurse for a primary care physician, and yes, even substituting the services of an LPN for the services of an RPN" (p. 7). However, the caveat and the key words in this thinking are "providing quality care". The healthcare needs of the patient should be matched to the skills and knowledge of the healthcare provider to provide quality care.

Most commonly, managed care organizations take the form of healthcare maintenance organizations (HMO). In 1973, Congress passed a law requiring employers with more than twenty-five employees to offer fee-for-services and a prepaid group practice plan, health maintenance organizations (Hughes, 1995). HMOs rapidly proliferated throughout the U.S. in the 1980s. Physician groups and/or independent physician practices are directly employed by HMOs. In the HMO, the primary care physician is the gatekeeper for the assigned member. The provider is paid by capitation, a risk share arrangement per person. Capitation is the principal reimbursement method for managed care. The hospital and primary physician are prepaid an agreed amount of money per managed care member per month. In turn, the managed care organization has contracted healthcare services for reduced fees with the healthcare providers such as merged healthcare organizations and physicians. Capitation can be viewed as a realignment of incentives. With this thinking, by prudently providing care and focusing on health maintenance and prevention of illness for the capitated life, the cost of care is lowered. As a result, the managed care organization, itself, and its contracted healthcare providers share in the savings. Through capitation the managed care companies become the middle-man for healthcare services with the ultimate power to decide what services will be paid for the patient.
In an HMO, there are low co-payments for members for healthcare services from the network healthcare providers who have contracted with the managed care organization, but no reduced out-of-network benefits. There are some variations of HMOs differentiated by the contracts with physicians. One variation is the Preferred Providers Organization (PPO), a network of healthcare providers offering services on a discounted basis. There is a fee-for-service, as in a traditional healthcare plan, and a co-insurance deductible. Physicians are chosen from within the network, but have no gatekeeper role. The hybrid model HMO is the Point-of-Service (POS) plan in which there is a choice of managed care programs or an out-of-plan service, requiring a higher premium.

Since 1995, over 50 million Americans have enrolled in managed care plans, with the number growing each year (ANA, 1995, December). At present, employees access various managed care plans through employers. And, in some states, Medicaid and Medicare patients have been moved into managed care organizations. However, because of the different hybrids of managed care plans that are surfacing, it is often confusing to the average person just what and how one is covered. The language is business-oriented and foreign to most persons enrolled in such plans. Most persons learn about the services through experience in utilizing the benefits or running against the restrictions of the healthcare insurance plan.

According to Edward Hughes (1995), managed care evolved to rationalize the cost and quality of care. Costs are reduced as efficiencies are achieved. Managed care organizations will achieve efficiencies through economies of scale, continuous quality improvement/TQM, substituting technology for personnel and decreasing the length of hospital patient stays to limit costs. An example of economies of scale is achieving efficiency
utilizing cooperative purchasing with single suppliers to receive discounts. Hughes contends that continuous quality improvement can be traced through the structure of managed care organizations. The implementation of the concepts of TQM/CQI in care reduces costs and improves care because of the constant analysis of inappropriate and appropriate utilization of services. Hughes maintains that "the goal of today's managed care organizations is their survival . . . by providing quality care at low costs" (p. 9).

Addressing the rapid emergence of managed care during this healthcare paradigm shift, the American Medical Association (AMA) in their 1993 statement, *Health Access America*, proposed managed care principles, offering standards of operation for managed care organizations. To the AMA, "the concept of managed care, when it is a part of a pluralistic system of choices, is also an acceptable approach to health benefits management" (p. 15). The following managed care principles were to be employed. Managed care programs compete openly and equally in the healthcare market. Reimbursements promote quality healthcare. Disclosure of cost-control mechanisms, policies, and procedures are in understandable terms. Access to necessary medical care is not limited by financial incentives to healthcare providers. Utilization review within managed care programs is founded on criteria developed with the medical profession. Legislation permits physicians to negotiate quality of care and other provisions of managed care. Lastly, standardization and methods of accreditation for managed care programs are developed and implemented. The AMA principles illuminated the need for some measures of assessing and directing the rapidly looming healthcare delivery system of managed care.
Since the AMA proposal, the accreditation of managed care programs is being developed through the National Committee on Quality Assurance. The business coalitions of managed care organizations with healthcare organizations have required the tracking of data through the managed care corporations through the system of Healthplan Employer and Information Set. This data set is designed to assist individuals in choosing a plan, as patient satisfaction is a critical measure. This tracking of data and outcomes of managed care has indicated that the type and intensity of treatments vary geographically, raising questions as to the justification of their costs (Cihak, 1996). Future evaluations of managed care organizations will address costs, outcomes, and patient satisfaction, as quality report cards on the outcomes of managed care organizations will be made public (Sovie, 1995).

The impact of this healthcare paradigm on society continues to be revolutionary. Some critics claim that the new healthcare system is creating systems and models of healthcare delivery that have gone untested in response to cost-cutting measures. In addition, a phenomenon has resulted from the implementation of a solution to healthcare's access and cost problems, managed care: the managed care organizations, as insurers, are deciding what access the patient has to certain treatments, depending upon costs. Unreasonable restrictions on access to needed services exist. As a result, in March of 1996 to insure that needed patient care services are provided to Medicare and Medicaid patients, the U.S. Department of Health and Human Services established HMO rules for compliance (Kotulak and Gorner, 1996).

Employers also influence access to healthcare by deciding which managed care organizations will be offered to the employees as benefits. If the employer is a medical center, they may even offer their own healthcare system network. Although preventive care is easier
to provide at less cost, certain curative treatments may be denied due to cost or may be deemed inappropriate for an individual's prognosis. Thus, the managed care member would be required to pay for going outside the plan to receive desired outcomes. Another criticism of managed care is that early discharge from hospitals to save money has some patients returning to the hospital due to complications. As a result, for example, some state legislators mandating for public safety and health have intervened for mothers and newborns to be able to stay in the hospital a minimum number of days.

An additional issue in managed care is that the corporations formed by the mega-mergers of insurance companies and managed care companies view healthcare as their financial future. One such merger has resulted in affecting the health of over 23 million people. In such mergers, past CEOs of managed care organizations have received $1 billion in stock and cash. In mega-mergers, the new corporation obtains the exclusive right to control and profit from the relationship between patients and the healthcare system (Beck, 1996).

At present, there are 600 managed care corporations in the U.S., with 54 percent of physicians working for HMOs. The most profound effect of the present managed care system is its infringement on the American cultural achievement of the patient-physician trust relationship (Larson, 1996). Managed care organizations are in a position to assist physicians in building up practices. One negative action that has been taken is that some managed care corporations have required a "gag" agreement forbidding physicians to inform patients how money is saved and pocketed by organizations and physicians if treatments are limited. This kind of policy is coming under scrutiny as unethical and illegal, prompting states to pass
protective legislation for healthcare professionals (Jouzalites, 1996). Nurses are facing a similar ethical dilemma as managed care corporations are offering nurses monetary incentives, based upon how much below the targeted costs per managed care member/per month the nurses can achieve. This policy may affect the nurse-patient relationship (Canavan, 1996).

In the future, there may be further control of managed care due to the dissatisfaction of the middle class, legislative measures, and political reform. Dissatisfaction of the middle class will arise as a result of an emerging three-tiered healthcare coverage structure: the bottom tier, with 41 million Americans having no healthcare insurance and 80 million underinsured; the middle tier about 100 million Americans in managed care; and the top tier those who can afford to choose any healthcare service. The focus on quality care is missing, and the expected social contact from the past between patients and healthcare providers is changing because of the institutionalized changes in the new healthcare delivery system (Kotulak and Gorner, 1996).

Managed care is the new delivery system and healthcare model for the twenty-first century. The primary care physicians are key players in controlling and managing healthcare delivery. These capitated systems are achieving their largest savings by blocking access to referrals to specialists and hospitals through the primary physician (Cihak, 1996). Thus, capitation is the financial incentive that is making the most dramatic changes in healthcare. Managed care corporations will compete to provide services to designated capitated groups. To survive, a hospital must become integrated into a healthcare network and share in the financial risks of the capitation system of managed care. All of the components of the managed care system, such as hospitals, nursing homes, and clinics are cost centers, not
revenue centers, but the promotion of health and the prevention of health problems are the priorities.

The health care paradigm shift to managed care has enormous implications for the profession of nursing. Presently, two-thirds of professional nurses are employed by hospitals, but hospitals are no longer going to be at the center of healthcare delivery. Downsizing and cost reduction strategies are programs of the new managed care system resulting in reduced hospital stays and admissions. In general, as patient census drop, so does the need for registered professional nurses and other staff; however, some counterpoint exists in that although the hospital census is decreasing, the acuity and complexity of patient care are rising, because only the most acutely ill patients are admitted to the hospital. Thus, staffing with skilled nurses remains important.

Regardless of need for highly skilled personnel, in order to cut labor costs nurses are being replaced by less skilled personnel, changing the skill mix (Meyers, 1996). A quick-fix solution to labor costs in many healthcare organizations is the creation of nursing assistive personnel for hospitals, with no state guidelines for training. Often, the assistive worker's training, as indicated by researcher Thomas McLauglin, consists of less than 40 hours (as cited in Curtin, 1994). Nevertheless, nurses are legally held accountable for the tasks delegated to these ill-prepared persons. The development of multiskilled personnel who can be flexible, meet rapidly changing healthcare needs, is being proposed.

To develop additional multiskilled workers, some healthcare consultants are seeking the reform of the "antiquated" state health-professional license laws, which includes those laws applied to nursing. They propose that health systems could maintain better competency
of professionals with frequent evaluations rather than the one-time state licensing. These proponents of institutional lincensures believe that health systems, not professional organizations, will assume responsibilities for their quality control, as the system would create its own credentialing process. Training programs for the previous professions will focus on competency of tasks and multitasking rather than on professional credentials (Shimberg and Roederer, 1994).

Questions of patient safety and quality of care continue to arise in hospitals and other healthcare settings due to cost reduction strategies affecting nurses. A highly prominent cause for concern in the restructuring of the healthcare delivery system is the decrease in management personnel and the resultant job redesign of the size, mix, and functions of hospital staff. These are prime targets for alteration in cost reduction programs. According to the healthcare industry, flexibility, cross-training, and productivity of staff are essential reasons for re-engineering and revamping to achieve efficiency and cost effectiveness.

In response to the restructuring, nurses have been reporting an upswing in noted patient safety issues due to improperly trained personnel and short staffing. Nurses are also raising quality-of-care and ethical issues, acting as patient advocates during the evolution of managed care. Thus, there appears to be an ominous domino effect to managed care which was designed to assure access and cost-effective, quality care, but instead is adversely affecting nurses and their practice. The negative effects and challenges appear in the form of labor reductions, functional expansions, substitution by poorly-trained personnel, and a threat to continued control of their own profession. A counterpoint to this restructuring and job redesign is that since hospital staff spend 31 percent of their time working in inefficient
systems, downsizing, and cross-training will only be effective when wasteful processes are eliminated, so that personnel with redesigned jobs are able to do their work (Curtin, 1994). Restructuring, as a direct result of managed care, has presented grave implications for nursing and will greatly challenge the profession to reexamine its strengths, weaknesses, threats, and opportunities to meet the future healthcare needs of society.

In reply to the safety concerns voiced by nursing, Congress directed the Institute of Medicine, a part of the Academy of Science, to investigate the effects of hospital and nursing home staffing in relation to quality of care issues. The release of their report in March, 1996 reveals that there is a shocking lack of nationwide hospital data on the quality of hospital care. The Institute is calling for a national research agenda, addressing the quality of hospital care, as hospitals have forged ahead with restructuring, re-engineering, and downsizing without reliable data on their effects on the quality of care. The healthcare industry is to be held accountable for quality care. According to the report, relying solely on mortality rates as a measurement of quality of healthcare is not sufficient. Regarding nursing homes, the upgrading of nursing home staff and administration is recommended to provide better care, since nursing homes are receiving more intensely ill patients to save the hospitals' money (Wunderlick, Sloan, and Davis, 1996). It is encouraging that the public is becoming aware of the concerns of quality healthcare issues, as the healthcare industries are suppose to serve society.

An overall initial analysis of managed care indicates that it does reduce the costs of healthcare by rationing healthcare. Due to greater use of managed care and the expected federal actions to control costs, the growth of U.S. private healthcare sector costs in 1994
was the slowest since 1960. However, Medicare costs continue to grow at a higher rate (Growth of U. S. Healthcare, 1996). Managed care has positioned the healthcare industry to reward minimal care and as a corporate battleground for stock market wealth. Presently, managed care is not perceived by the public as patient driven, but market driven. Thus, a socioeconomic balance needs to occur in this new healthcare delivery system.

Continuity

The fourth component of healthcare is continuity. Healthcare continuity refers to the degree to which care is coordinated over time among healthcare organizations and healthcare professionals. In the past, continuity in healthcare was accomplished through establishing a family doctor, and care was provided in the hospital. Further fragmentation of care resulted from the increasingly greater specialization of medical care, so that one patient may be seen by several specializing physicians. As healthcare became more complex with new technology and specialists, more extensive care was provided in non-hospital facilities such as rehabilitative centers. As the population ages and families become more dispersed, nursing homes have expanded. The need for continuity of care from hospitals into homes and community facilities has increased.

Since the late 1980s, greater continuity of care has been occurring intra-organizationally and inter-organizationally due to utilization review and quality assurance measures. For example, in the hospital, a team of professionals develops and implements a plan of care for the patient. Prior to discharge, continuity of care is assured by contacting and coordinating the care with future providers so that when the patient is discharged to the home, nursing home, or another facility, care is continued in a seamless manner.
In the future, due to managed care with its decrease in hospital admissions and the early discharge of patients from hospitals to homes and other facilities, there will continue to be a need for nurses to coordinate and ensure continuity of care for patients and families. Included in the continuity of care is the very important patient and family education provided by the nurse to enable adaptation to home care and its responsibilities. Because more care is expected to be undertaken by patients and family members at home to reduce healthcare costs, they must ethically and legally be taught the skills to assume patient self-care.

A possible continuity problem resulting from the managed care system rests on the fact that the corporation selects the pool of physicians from which a patient can choose. It is then possible that a patient's previous physicians are not in that particular healthcare plan. Or, because there are several physicians in a group, a patient may not be seen by the same doctor. Consequently, it is more difficult to establish a continuity of a physician-patient relationship and this may affect the quality of care.

Quality

The fifth and last component of healthcare is quality. Quality in care should be the goal and driving force of healthcare and of healthcare reform. Quality is the underlying goal and value interlinking the five components of healthcare. If quality is defined as meeting the needs of the customer, and the customer is the party to define those needs then quality should be the cornerstone of any program to be considered by the healthcare industry. For the future, this would be supported by the quality proponents who have perpetuated the Quality Movement, be it in manufacturing, education or healthcare. The underlying tenets of TQM are to be upheld.
TQM tenets continue to be applied in organizations and corporations. Corporations are social organizations where work is performed and decisions are made as to what products and services are provided to society. They are growing in number as government services are being privatized and hospitals are becoming for-profit corporations. Thus, businesses are assuming a larger role in our society. The greatest test of the survival of TQM concepts for the future may be their application in the context of corporate downsizing and restructuring. Some re-engineering consultants blame the consumers for the inevitable restructuring, citing by their demands for higher-quality goods at lower prices (Leana, 1996). Thus, a battle looms between customers and shareholders.

In the healthcare field, because of some unfortunate events related to managed care and the resultant restructuring of healthcare systems and organizations, the ANA (1993) has issued a caveat to nurses warning them to appraise the appropriateness of TQM and CQI programs in the delivery of healthcare services. Nurses should evaluate whether or not the TQM/CQI programs increase or decrease nurse participation in decision making, possibly being used as a cover for management control. ANA adds that TQM/CQI, "in its purest sense, analyzes how work is done and how to best adjust work in order to improve the quality of the final work product. If done according to the basic tenets, TQM/CQI programs leverage control and discussion-making authority into the hands of front-line nurses as a process facilitating the design and implementing of change" (ANA, 1995a, p. 3). If some nurses experiencing problems in their healthcare corporations that are perceived as possibility being associated with TQM/CQI programs, nurses may be wary of the programs and become distrusting. Unfortunately, this mistrust may interfere with some nurses' future
acceptance of TQM tenets as proposed by the quality proponents. Hopefully, through education these nurses will gain an understanding of the benefits of TQM's application to healthcare.

Coleman (1990) assists in putting corporate actions into perspective regarding current healthcare trends and new healthcare corporations. According to Coleman, the modern corporation in a capitalist society is a profit-making social organization and a creation of the law, with social control being established through external regulations. He points out that defining the corporation's social responsibility is difficult. It is true that the nature of the corporation is one of self-interest and profit-making, for that is how a free-market operates. However, corporate "self-interest is not society's goal; it is the means. The goal is the collective good of society. The wealth of the nation" (Leana, 1996, p. 18).

Because education is not a profit-making corporation, TQM may not meet with the same intensity of resistance and suspicion regarding its real intent as encountered in certain areas of nursing. Some nurses are experiencing the purported application of the TQM/CQI through some corporate medical centers claiming to be utilizing continuous quality improvement to restructure their healthcare systems. Nonetheless, when any corporation or organization asserts that its goal is cost effective, quality care within the framework of TQM/CQI, these assertions should be critically analyzed in reference to the central tenets of TQM as proposed by the quality proponents, particularly Deming's Fourteen Principles for TQM.

Certain downsizing medical centers have staffing problems and patient safety problems. Likewise, some managed care organizations are not placing their customers first, and some needed treatments are being denied to save money. Subsequently, the lack of
considering the uniqueness of the individual's needs in healthcare decisions affects the quality of care. The TQM culture emphasizes the organizationally shared values of: (1) the customer, (2) continuous learning, and (3) betterment. If there was healthcare team decision making in such an organization, the patient, as a customer, would be part of the team. The application of continuous quality improvement assesses the outcomes of care in terms of patient satisfaction. If these tenets are fulfilled, a healthcare corporation can claim to be applying TQM/CQI to justify its actions. As evidenced in this paper, many healthcare professionals working in teams are making a difference in the care given to their customers. Therefore, TQM can be a philosophy and a technique to improve care.

TQM concepts are supported in a 1994 report from the Dunlop Commission on the Future of Worker-Management Relations. The report recommends (1) the use of joint, problem-solving teams, (2) self-managed work groups, and (3) internal self-governance. The report continues by advocating work redesign which fosters an increase in productivity and cooperative relationships. It proposes criteria for the new workforce for the twenty-first century: (1) employee empowerment in organizational decision making, (2) work teams, (3) employee-centered policies, (4) customer and employee driven quality, (5) compensation linked to quality outcomes, and (6) development of higher level skills, such as problem solving, consensus-building skills, and creative thinking.

Futurists continue to predict that quality in products and services will remain a focus of society into the twenty-first century. Boyett and Conn (1991) indicate that the lessons of the 1980s and the costs of poor quality have been learned. Consequently, in the future, quality will mean seeking perfection in every step of the work process. This will be the expectation
for employees tied to bonuses and incentives for demonstrating excellent quality improvement. Continuous quality improvement will require continual learning to prepare for new jobs, along with teamwork to preserve thousands of jobs and the quality of life enjoyed in America. They believe that "the workforce that cares, knows more, and does more . . . and takes more pride in the products for the customer . . . quality will be 'built in' not 'tacked on' " (p. 17). According to Boyett and Boyett, quality skills development for the workforce beyond 2000 will address competencies which include productively utilizing resources, interpersonal skills, and information, along with possessing skills in computer information systems, and technology. The foundation for these competencies is comprised of the application of: (1) basic skills, (2) creative and reasoning thinking skills, and (3) personal qualities such as responsibility, self-management, and integrity. These predictions equally apply to healthcare employees.

Future predictions also include those of Johnston and Packer (1987), forecasting that the new institutions that are developing cost-effective methods for healthcare delivery, such as HMOs, will create more efficient healthcare systems and will invest in research for greater cost-saving technologies. Both the ANA (1991) and AMA (1993) support: (1) empowering patients to control their healthcare, (2) healthcare research, and education of professionals to provide quality care, and (3) health promotion and prevention of disease. Finally, as the managed care concept matures within a pluralistic healthcare system, it may bring about quality healthcare care for patients in a cost-effective manner without sacrificing the individual control of personal decisions. In this type of healthcare environment, new opportunities for healthcare professionals to serve their customers will emerge.
The Integration of Total Quality Management Concepts into the Profession of Nursing to Meet the Healthcare Needs for the Twenty-First Century

Healthcare reform presents challenges and opportunities for nursing. The challenge for professional nursing is to proactively meet rapidly changing healthcare issues. The integration of TQM concepts and their underlying sociological and educational concepts into professional nursing practice and education can assist nurses in meeting the future needs of the healthcare customer. The initial and immediate impact of healthcare changes is being felt by the profession of nursing, forcing nursing practice to comply with the healthcare needs of society to remain effective and responsive.

The analysis and integration of TQM concepts into the profession of nursing will augment the projection of nursing's future roles. The TQM conceptual framework and its underlying sociological and educational concepts are: (1) quality: a quantitative and qualitative synthesis, (2) the customer and the uniqueness of the individual, (3) TQM as an organizational culture: system, culture, norms, roles, and values (4) team, problem solving and the group concept, and (5) continuous quality improvement, learning, and evaluation.

Quality: A Quantitative and Qualitative Synthesis

The driving concept of TQM is quality, with its technical and humanistic components. Defining quality in a single definition is difficult, but a consensus of most healthcare providers would agree that it is meeting the customer's needs. Seeking quality and patient satisfaction will remain a goal for healthcare services into the twenty-first century. The healthcare reform of the 1990s, which is presently focusing on cost reduction and cost effectiveness, will not be
sufficient for society without quality care. Quality care must be balanced with cost
effectiveness proving the quality proponents claim that lack of quality is costly while quality
can save costs.

According to the Pew Commission (1995), the present healthcare reform is described
as being primarily centered on cost reduction and is market-driven. Decisions are not based
upon serving the interests of the public, but on rationalizing the use of resources to produce a
product or service which provides a profit for those who can master the new market. A
market-driven reform is not concerned with access to healthcare for all Americans. Universal
access needs to be accomplished at the state level through legislation and policies. However,
in the future, as healthcare professionals and organizations are restructured into large systems
of integrated care, "patterns of accountability" will emerge (Pew, 1995, p. 11). These
healthcare systems will be held accountable for the economics and quality of care.

Healthcare consumers want both affordable and quality care. That is the challenge
facing the American healthcare system. The immediate affordability response is to cut
healthcare costs through rationing care to patients and eliminating healthcare personnel
positions. These actions affect the psychosocial relationships of healthcare personnel and their
families. Thus, healthcare personnel and the patients they serve are being affected by this
healthcare reform. Nursing, comprising the largest numbers of healthcare providers, has been
captured in the web of quick cost-cutting devices.

Yet, at the same time, nursing is in a key position to become an advocate for quality
care. In managed care organizations, healthcare providers participate in risk sharing, and
nurses are being asked to participate in this operation. Therefore, it is the nursing profession
that must decide how to control its own practice. By focusing on achieving quality care and by constantly analyzing changes within a global healthcare system perspective, nursing can survive the reform. Traditional nursing roles can be adapted and new roles created in accordance with the needs of their patients in this changing healthcare system.

The profession of nursing has become an active voice as patient care advocate, as participants in policy making for quality care, conducting research, and serving in special healthcare interest groups, such as on the Institute of Medicine, Pew Health Professions Commissions, and Agency for Healthcare Policy and Research (AHCPR). As a patient advocate, the ANA introduced the Patient Safety Act of 1996 which focuses on major safety, quality, and workforce issues for patients and nurses. The act addresses critical safety and the quality crises in the healthcare sector. If the Act is adopted, healthcare organizations will be required to publicize factors that affect quality and safe care such as: (1) nursing staff-skill mixes, (2) RN staff-patient ratios, (3) Medicare patient complaints, (4) the impact of healthcare industry mergers on the community, and (5) the availability and accessibility of services for mothers, infants, elderly, poor, uninsured, and minorities (ANA, 1996).

The profession of nursing promotes the quality of professional providers and their practice through education, a code of ethics, standards of nursing practice, and patient care standards. The quality of healthcare providers affects the quality of care. In response to the patient quality care issues, ANA identified seven quality indicators as a framework for future research projects in assessing quality care to elicit data which can be easily utilized by nurses, consumers, and the government. The quality indicators include: (1) patient satisfaction, (2) pain management, (3) patient injury rate, (4) nosocomial infections, specifically urinary tract
and pneumonia rates, (5) total nursing care hours/patient care requirements and acuity, (6) skin integrity, and (7) assessment and implementation of patient care requirements (ANA, 1996). Another mechanism through which nurses promote quality care is through state licensure. Their Nurse Practice Act defines the legal responsibilities of nurses for public safety and health. By participating in defining the Nurse Practice Act, nurses, as professionals, can clearly define their practice to serve the public.

As individual practitioners, nurses can utilize TQM concepts by improving quality care through healthcare teams and incorporating quality research findings into practice. By participating in both quality assurance and quality improvement programs, nurses can create organizations in which there is a clear understanding of customer expectations. Nurses can contribute to quality care by continuously improving their daily work processes through quality improvement team projects. Nurses can also promote quality care in managed care organizations by: (1) identifying patient care problems, (2) formulating the measurement of quality nursing care, and (3) assessing standards of care (Hicks, Stallmeyer, and Coleman, 1993).

Because TQM’s tenets address both human and technical components, its concept of quality very easily adapts to the nursing profession as an art and science. The art of nursing and its definition of caring relates to quality’s humanistic side, the qualitative element. Caring is a motivation to build quality into healthcare services and into the nurse’s individual performance in daily practice. Nursing is also a science and relates to TQM’s technical, quantitative component. Nurses’ ability to work in quality teams and to problem solve with
quality statistical tools enables the organization to achieve quality through TQM's technical component.

The Customer and the Uniqueness of the Individual

The second TQM concept, the customer focus and the uniqueness of the individual, is not new to nursing. The patient is the reason nursing exists as a profession and practice. The definition of nursing as caring is associated with the definition of quality as caring, as identified by some quality proponents such as Senge (1994) and Covey (1989). Thus, caring is a qualitative or humanistic aspect of quality and the cornerstone of nursing as a discipline, practice, and profession. Additionally, caring encompasses the understanding of the holistic needs of others and the richness in the unique individual.

A caring nurse fosters the patient's well-being; if not, then the nurse assumes the attitude of a bureaucrat by being more concerned with the goals and procedures of the system than with the moral sense of nursing. The moral sense of nursing is having a concern for others and taking care of them, which is concretely expressed through expert nursing practice. Expert nursing practice consists of whole systems of meanings, not particular skills or tasks (Bishop and Scudder, 1991).

Nursing as caring is linked to the concept of customers and their uniqueness by the philosopher Heidegger (1962). According to Heidegger, there is a dependent care which stems from being reliant upon others when one is ill. However, there is also an authentic care in which the person is assisted in caring for his or her own being, a self-care, focusing on the future. Nursing provides both kinds of caring. If nursing provides only technologically
centered care, a patient is treated as an object and there is no interest in a patient's self-care. This one-sided approach, technologically centered care, devalues the humanistic approach and the freedom to make healthcare decisions. To be cost-effective and to be profit-making, some policy makers and managed care corporations are promoting only a technological approach in the healthcare reform. Although costs are a critical factor in healthcare, it should not be the only factor shaping healthcare decisions.

Catholic University administrator Sister Rosemary Donley (1993) proposes a model for the healthcare reform that is applicable to nursing and the uniqueness of the individual customer. She believes that the quality of life is affected through altruistic motivation. The altruistic agent in healthcare reform is one who assumes the responsibility and accountability for decision making without being influenced by others. Thus, qualitative individual values and concerns about well-being supersede the quantitative standards of healthcare reform. Respecting the nature of the individual through a core of humanistic values transcends the cost-effective focus of current healthcare reform. Of foremost importance, then, are values that give meaning to quality healthcare. These values are the individual's dignity and the common good associated with religious and spiritual values which are relevant to healthcare reform. Donley also believes that other emerging healthcare models focusing on costs, primary and preventive care, and access will blend with the altruistic, quality model to bring true healthcare reform (Donley, 1993).

Nursing is a caring and human discipline concerned with the spirit and soul of each individual. In caring for the patient in a holistic manner, quality care is possible through understanding the unique meaning of the illness to a patient and family through their eyes.
The value of the individual as a person is traditional and deeply ingrained in nursing. However, during changes in healthcare, this value may be challenged and needs to be protected and espoused. In addition, during healthcare reform, what may be new to nursing is the patient and family, as "customers", a concept associated with TQM and the Quality Movement. The importance of the "customer" in TQM is that its philosophy wishes to strengthen the humanistic elements in achieving quality in social institutions. These ideas are in concert with nursing, although the terms may differ. By understanding the "customer" in the context of the healthcare reform and TQM, nurses will better understand how the dynamics of the changing healthcare delivery system affect the five components of healthcare (1) quality, (2) availability, (3) affordability, (4) accessibility, and (5) continuity.

In response to the healthcare reform, traditional nursing roles are expanding to meet the healthcare needs of the twenty-first century. An emerging role for nurses is that of the nurse case manager. A nurse as a case manager assists the patient and family across the continuum of care. As a patient enters the hospital, the nurse case manager establishes a rapport with the patient and guides the patient and his/her care beyond the hospital discharge. If the patient has a chronic condition, a long-term relationship is established with the individual patient to assist in self-care. In case management, the nurse spends about 70 percent of the time working outside the hospital, accessing the necessary community resources for the patient and family to promote self-care. This method of nursing is proving to provide quality and cost effective care (Bower, 1992). The term case manager seems to be too clinical a term, and may not reflect the real intent of the nurse's function, i.e., to individualize the healthcare experience as the patient moves through the system. Also, the
nurse is not a case manager, but a patient-care facilitator. The nurse should not be controlling the care for the patient, but guiding and empowering the patient in his/her decision making and self-care.

In the future, to reduce healthcare costs, most care will be delivered outside the hospital in ambulatory centers, homes, long-term facilities, hospices, and sub-acute units. Nurses will follow their patients to these settings. A new delivery site in the community is being tested. The primary patient care is provided in the Community Nursing Organization where nurse-managed healthcare delivery assures quality, access, and affordable services for Medicare beneficiaries and persons in underserved areas (ANA, 1995, December). An existing common nurse's role is that of patient educator as a component of care within the hospital setting. This role is expanding from an informal patient education function to a formal role focusing on prevention of illness and promotion of health as a health educator. This role expansion is supported in a study of healthcare consumers in which it was found that those surveyed perceive the nurses as health educators, along with the nurse's traditional role associated with illness and the hospital setting (Gaffke, 1983). In the future, the extended nurse health educator role will gain greater importance, as prevention of illness and promotion of health proves to be cost-effective. In addition, patient/health education promotes informed healthcare decision making by patients and families.

Nurses can become more involved in health education programs in the community and the promotion of self-help groups. Preventive healthcare through health education will extend to schools, churches, and other community settings. An entrepreneurial nurse can
connect with industrial employers and other settings to provide consulting health education and life-style changes such as preventive measures which decrease healthcare costs.

Another emerging healthcare reform trend that is surfacing is a formal role for nurses as a patient advocate, an ombudsman. In general, as daily patient advocates nurses socialize the patients to receive care in a changing healthcare system. In addition, formalized roles are emerging in some healthcare institutions, adding to their quality service philosophy, by establishing a patient ombudsmen. In managed care organizations, a formal patient advocate role can provide information about managed care plans, benefits, handle complaints, and assist in the appeals process to provide customer satisfaction.

On a more personal basis for nurses, Sally Gadow (1980), a writer on nursing philosophy, offers a deeper insight into the meaning of patient advocacy for nursing. Patient advocacy is assisting patients to become self-determining, expressing the "full and unique complexity of their values . . . in determining the personal meaning which the experience of illness, suffering or dying is to have for that individual . . . existential advocacy" (as cited in Bishop and Scudder, 1991, pp. 26-27). At times, the nurse-patient relationship occurs during a very vulnerable period of the patient's life. The nurse, as a patient advocate, provides counseling and the means to overcome the sometimes overwhelming bureaucracy of a healthcare institution, personalizing care and enabling a patient's self-determination.

This unique advocacy role is attributed to healthcare providers, such as physicians and nurses. As early as 1962, Talcott Parsons spoke of concerns that still apply to healthcare reform today. He believed that the "self-interested orientation" of human beings is dysfunctional for professionals in the care of ill persons, because ill persons are helpless and
open to exploitation. To protect the ill, medical and nursing professions, employ the mechanism of "neutrality" which is the "disinterestedness" of the healthcare professional (p. 333). This "neutrality" in the patient-physician and patient-nurse relationship is being tested during this period of healthcare reform by certain managed care activities, such as monetary incentives given to health care professionals to promote cost reduction. Patient advocacy offered by both of these professional groups will be suspect if such practices become common.

The existing nurse's role in triage will expand outside the hospital in the twenty-first century. Focusing on the community setting, triage will be a mechanism providing more timely access to healthcare in underserviced areas and to those at home alone. Through telephone communication, the nurse will counsel and guide a patient-caller to appropriate services and provide patient education. In addition, a nurse can be available for on-site visits in case of sudden illness to assess the patient's status, determining the appropriate care and referrals (ANA, 1995, December).

**TQM as an Organizational Culture**

TQM, as an organizational culture, can be promoted by nursing professional organizations endorsing TQM as a healthcare organization's philosophy and mechanism to achieve quality care. Individual nurses can support and participate in a TQM organizational culture, when their employer undertakes TQM as system-wide endeavor, its norms and values as a way of life. As evidenced in literature, some organizations and nurses are successfully implementing TQM tenets, such as teamwork and continuous improvement. In
addition, healthcare interest groups are promoting TQM/CQI for the future (ANA, 1996, May; AMA, 1993; JCAHO, 1995; Pew, 1995). Nurses can assist their organizations to survive the healthcare reform, to evolve as quality organizations, and to develop a quality focused organizational culture. As Deming (1982) proposed, the organization benefits by having the employees partake in the decisions that affect them and by recognizing that an organization's greatest waste is the underutilization of employees' abilities and education.

At the same time TQM is being applied in certain healthcare organizations, some untoward events are occurring in implementing managed care on a national basis and managed care is being challenged by the public. Some organizations are rationalizing their cost reduction methods with selective and isolated TQM/CQI applications, such as employing statistical methods to achieve continuous quality improvement. These out of context applications may make nurses fearful of TQM/CQI tenets. Recognizing and addressing the fear (Benson, 1993), along with education, nurses can overcome barriers to TQM implementation. Nurses may be uninformed about the concept of a TQM as an organizational culture. Educating nurses in the theory of TQM culture and its basis in sound sociological and educational concepts may alleviate the concern. This knowledge base could neutralize the belief that TQM is solely a business and corporate undertaking for self-interest, because TQM's underlying sociological and educational concepts have, over time, gained credibility through research and rigorous intellectual debate. Additionally, understanding the true meaning of TQM's concepts and techniques, along with the humanistic side of TQM would enlighten the nurses as to the benefits of the TQM tenets.
In developing a TQM culture, the quality proponents Deming, Juran, Covey, and Senge emphasize the importance of leadership in establishing a TQM culture in an organization. Nurses, as formal or informal leaders, could benefit from the quality proponents' wisdom addressing leadership. Deming's (1982) Fourteen Points are mandates for leaders, and Juran (1989) believes that leadership is a prime factor in determining cultural patterns. Covey's (1990) principle-centered leadership rests on his seven habits for effective persons with values and personal continuous renewal. Senge (1994) speaks of his four leadership roles: researcher, designer, steward, and teacher. The ideas of the quality proponents would assist nurses as formal leaders in achieving quality care through implementing an organizationwide TQM culture. As informal leaders, they can promote quality healthcare in the workplace and in their professional organizations.

Team, Problem Solving, and the Concept of Group

Intrinsic in TQM are the concepts of a team, problem solving, and group. These three concepts are also naturally associated in nursing practice. For example, nursing involves working with groups: (1) caring for groups of patients, (2) collaboration in groups of healthcare providers to provide care for a patient, and (3) working in groups with others in the healthcare organization's committees. In addition, the concept of a group is a sociological concept and is inherent in a team.

A prediction for the year 2000 workforce is that teams will be a predominate way of life for organizations. Teams will problem solve and generate innovative quality products and services. Moreover, self-managed teams will boost productivity (Bezold, 1992; Boyett and
Conn, 1991). In healthcare, JCAHO will expect that interdisciplinary teams will function to improve a healthcare organization's processes. Therefore, nurses are expected to be team members and leaders in improving quality care, improving work processes, and collaborating in healthcare teams.

Nurses participate in quality project teams which interact in a united manner, sharing common values and norms; focusing on improving work processes to meet needs of the healthcare customers; and achieving quality goals through problem solving. Quality improvement tools utilized by nurses include the Deming's Plan-Do-Check-Act cycle. This cycle is based upon the scientific problem-solving method, just like the nursing process. The nursing process is a systematic method for critical thinking and decision making consisting of: (1) assessment, (2) diagnosis, (3) planning, (4) implementation, and (5) evaluation of patient care.

As a leader of a cross-functional quality team, a nurse can improve patient care by setting standards for care. Because a cross-functional team represents various departments and levels of employees, the team members can design and implement patient care standards to serve their patients. Being given this task and gaining a sense of accomplishment and pride in establishing patient care standards sends a message to the employees that they are valued for their mental abilities (Gaffke, 1993).

Another type of team in which nurses are members is the interdisciplinary healthcare team. The healthcare team had its beginnings in the 1930s as physicians banded together to provide comprehensive medical care. Shortly afterwards, the team became interdisciplinary as other healthcare providers were included, such as nurses. The healthcare team of the 1990s is
even more inclusive of a variety of healthcare professionals, such as social workers, physical therapists, speech therapists, and nutritionists. The interdisciplinary health care team serves both a moral and an instrumental function. The moral function derives from the focus on the patient's psychological, spiritual, and physical needs. Complete care is provided for the patient, as a human being. The instrumental function of the interdisciplinary team refers to the application of their competent psychomotor skills and technical skills in a procedure (Purtilo, 1994).

In the healthcare reform milieu, tension is arising in interdisciplinary teams as each professional is being pressured by the healthcare organization to be cost-effective in the delivery of their services. A person perceived as having fewer less technical skills may not be as highly valued by the healthcare organization and is likely to be eliminated. When a healthcare professional's position is eliminated who is a member of an interdisciplinary healthcare team, it is not only the person who may suffer but the patient and the team as a whole. If a member of the team is eliminated, the interdependency of the members may be stressed to the point where quality and efficiency are compromised (Purtilo, 1994).

The concepts of team, problem solving, and group are a very comfortable fit for nurses. They are components of nursing theory and practice. Moreover, a nurse's work is collaborative in nature, interdependently caring for patients and families.

Continuous Quality Improvement, Learning, and Evaluation

The fifth and last TQM concept that needs to be integrated into the practice of nursing to meet the health challenges for the twenty-first century is that of continuous quality
improvement. Continuous quality improvement's underlying concepts are learning and
evaluation. The nurse participates in continuous quality improvement by fulfilling the
expectation of quality in performance as a professional person, indicated by Talcott Parsons
(1962). The nurse also is expected to be a member of quality project teams.

Continuous quality improvement is often cited as being an ongoing process of
evaluation and betterment to achieve quality. Continuous quality improvement is also a
motivating factor and inherent capacity for an individual and an organization. According to
Covey (1989), continuous intellectual and spiritual renewal begins within the individual and,
then, one is able to move outward achieving interdependency with others. Being an
interdependent professional, a nurse can contribute to the quality goals of the organization.

Continuous quality improvement implies growth through learning. The nurse is
committed to continuous, generative, life-long learning for self-improvement. And, in learning
with others in an organization, nurses contribute to the development of a learning
organization, creating innovations with value and meaning to people (Senge, 1994).

Organizations benefit not only from individual learning, but also team learning.
Through the team, as a group interactive process, a change of behavior in individual members
and in the group, as a whole, is validated. Team learning is a learning unit, a microcosm of a
learning organization (Senge, 1994). As members of the team, nurses learn from team
learning and share in the learning organization, as a whole.

The structure and process of a group can facilitate nurses to learn through the
experiences of others and contribute to continuous quality improvement. For example, a
learning network can be developed by gathering persons with similar interests to share ideas
with each other (Neubauer, 1995). Problem solving with others permits nurses to utilize the collective thinking ability of many. Thus, continuous learning can be accomplished through informal groups of nurses, sharing common positions and learning from one another. Individual nurses can gain knowledge about TQM through self-directed learning, reading, and interacting with members of quality promoting associations, such as the American Society of Quality Control. The profession of nursing can become an active part of the future of quality healthcare through educating nurses about TQM and other quality initiatives.

Future roles for nurses can include TQM education of other healthcare professionals in addition to nurses. Successful TQM initiatives can be used as benchmarking and teaching examples. Also, when nurses interact with other healthcare professionals, further learning is possible.

The concept of evaluation is ingrained in TQM's continuous quality improvement. Evaluation in TQM is commonly referred to as benchmarking. Benchmarking is a comparative evaluation of the quality of care offered in a particular setting to examplar healthcare settings. Benchmarking through comparative performance in healthcare promotes the learning of how others have achieved high levels of practice (Czarnecki, 1996). Evaluation is also achieved by applying qualitative and quantitative research methods. The goal of TQM evaluation is to satisfy customer needs. Therefore, data are obtained from the customers, both internal and external. Nurses can improve care by assessing the outcomes of care through research and, as employees, can provide data to the organization to promote the growth of organizationwide quality programs. Additionally, nurses can foster communication between healthcare agencies to improve quality and continuity of care through joint
evaluation of their services to their patients and families. For example, a visiting nurse agency established a joint continuous quality improvement program with a hospital to gain effective hospital discharge planning, referral, and home care services. The resultant group evaluations of their services and cooperative problem solving enabled them to become more effective in the delivery of their services (Leimnetzer, Ryan, and Nieman, 1993).

Another method to assist nurses in evaluating patient care is the development of a critical pathway or caremap through the efforts of an interdisciplinary group. Critical pathways are an example of the appropriate utilization of resources for cost-effective, quality care, outlining the important and necessary care that must occur in a predicted and timely manner. For example, certain prescribed tests are routine protocols for the care of a patient with a diagnosed condition and/or procedure. Variances from the critical pathway are monitored by the nurse caring for the patient or the nurse case manager assigned to the patient. The variances are traceable and are evaluated in relationship to the needs of the patient, leading to the appropriate care adjustments (Kimball, 1993). More common continuous quality improvement evaluation methods which nurses can use are: (1) focus groups, (2) written patient and employee satisfaction surveys, and (3) pre and post procedure or hospitalization telephone interviews.

During this period of healthcare reform, there is a great impetus to research patient outcomes and quality care. Data are necessary to determine impact of healthcare reform on quality care. Quality measurement in healthcare is still in the embryonic stages of development, presenting a tremendous research opportunity for doctorally prepared nurses. A governmental agency committed to such research is the Agency for Health Care Policy and
Research (AHCPR). Its mission is to enhance the quality, cost-effectiveness, and delivery of healthcare services through research. Nurses have the opportunity to participate in research through this organization.

To contribute to continuous quality improvement, the AHCPR joined the internet to share a wealth of science-based knowledge with healthcare professionals and with consumers, enabling them to make better informed healthcare decisions. Computers will continue to be a tool for processing and generating information for healthcare. They are used for documenting individualized patient care plans and augmenting professional decision making in patient care.

Continuous quality improvement, as an evaluation strategy, will transfer into the healthcare field of the twenty-first century. Nurses can seize the opportunity to assume roles as quality improvement coordinators in various healthcare organizations due to their knowledge of the healthcare system and patient care services. In addition, professional nurses can provide the leadership to improve quality care outcomes through research.

In summary, the definition of nursing as it relates to its social contract with society, social changes affecting health care, the impact of healthcare reform, and social and healthcare predictions have implications that will challenge the profession of nursing and its individual practitioners into the twenty-first century. Quality care will continue to be both an issue and a goal into the twenty-first century, as indicated by this analysis of the five components of healthcare. Professional nurses will need to participate as qualified providers in healthcare reform to ensure that cost-containment measures are not implemented at the expense of quality care. In addition, quality care measurements must reflect nursing's contribution to patient care. TQM is a viable philosophy and methodology that can foster
improved quality care outcomes in healthcare. Its underlying sociological and educational concepts add credence and validity to its tenets, broadening the application of TQM to sectors outside of the manufacturing industry, such as nursing and education. Appealing to the professionals in healthcare and educational disciplines by giving evidence that TQM is supported by sound and established sociological and educational concepts may enhance the application of TQM into their fields. Both the professions and the organizations in which these professionals practice would benefit.

Internal and external influences on the profession of nursing have been analyzed. Their implications for the profession of nursing and TQM have been discussed, laying the foundation and the goals for nursing education to prepare future practitioners. Nursing education will need to prepare nurses to meet the changing healthcare needs of society for the twenty-first century, and it needs to include the study of TQM theory and application in its curriculum.

In chapter VI, the writer will analyze the interrelationships of TQM concepts and nursing education and will synthesize them into the professionalization process of nursing education to meet the healthcare needs for the twenty-first century. In addition, extrapolated basic findings from TQM will be integrated into professional nursing practice.
Chapter VI

THE INTERRELATIONSHIPS AND THE SYNTHESIS OF TOTAL QUALITY MANAGEMENT CONCEPTS INTO PROFESSIONAL NURSING EDUCATION TO MEET HEALTHCARE NEEDS

Based upon future workplace trends in healthcare reform and their implications for the profession of nursing, nursing education will need to prepare nurses to face a variety of challenges. To advance nursing into the future of quality healthcare services, TQM's conceptual framework with its underlying concepts must be synthesized into the professionalization process of nursing education. TQM tenets are complementary to nursing theory and practice, and can be integrated into the management of a nursing department or college. To demonstrate the application of TQM to nursing practice, its basic extrapolated findings and concepts are presented in a care/case study.

The Advancement of Professional Nursing Education to Meet Future Healthcare Needs

Once society's needs are known, the profession of nursing responds through the education of nurses, designing and implementing theory and clinical experiences to prepare qualified nurses to practice accordingly. Education socializes an individual into nursing through the transmission of society's values, beliefs, and culture, as these relate to healthcare and to meeting the needs of society. Talcott Parsons (1964) writes of socialization and roles.
He indicates that socialization is "the development of the commitments and capacities which are essential prerequisites of the future role-performance of individuals" (p. 130). Included in a role is the competency to use the requisite skills, behave responsibly, and fulfill the expectations of that role. Thus, through education the socialization and professionalization of student nurses transpires enabling them to fulfill their roles in society.

Over time, the educational response filling the nursing needs of society has resulted in a diverse infrastructure of nursing education. One perspective depicts the nursing profession as having different layers of nurses with the varying levels of their skill and knowledge defined by their level or degree of education. Historically, nursing education began in hospitals, and some of these programs still exist. Later, nursing education expanded to universities and community colleges. Consequently, there are three educational paths into nursing: (1) the hospital diploma, (2) associate degree, or (3) baccalaureate program. The hospital diploma nursing graduate is primarily educated to practice in the hospital setting. As a generalist, the baccalaureate of science degree (BSN) nurse brings a broader-based knowledge to the care of patients in the hospital and community settings. Growing out of a nursing shortage in the 1970s, the associate degree in nursing (ADN) was developed in community colleges as a means to provide additional nurses in hospitals. Today, the ADNs are greatest in number. Often a person acquires an associate degree as a foundation and a means for articulation into a BSN program. However, despite different curricula and clinical experiences, graduates of all three routes of entry into the practice of nursing obtain the same licensure, delineating the same scope of practice and granting them all the same title of registered professional nurse.
Another layer of nursing care provider is the practical nurse, titled the vocational practical nurse (VPN), or licensed practical nurse (LPN), with approximately one year of education and originally licensed to assist the registered nurse in hospitals. The option to articulate into the associate degree program is becoming more accessible to the LVN/ LPN.

The profession of nursing is responding to changing societal healthcare needs by providing advanced education at the masters and doctorate levels. Masters-prepared nurses are in the field of advanced practice and are experts in clinical specialties, education, or administration. Doctorally-prepared nurses are prepared to conduct research, expanding nursing theory and the discipline's body of knowledge.

These differentiations in practice and educational programs have been both a benefit and a source of division within the discipline and profession of nursing, itself. The positive side is that more nurses are available to render care as healthcare reform emerges. The negative aspect is that differences between the various educational levels in nursing are often unfamiliar and confusing to the public and to policy-making bodies. As a result, nurses are not often utilized in the most effective manner for producing quality healthcare in the growing variety of healthcare organizations. In addition, nursing is one of the few professions that does not require a four-year college degree in order to practice. This fragmented nursing infrastructure is being addressed through the articulation and creation of a career ladder in nursing education. LPNs/LVPs can articulate into the ADN program, which, in turn, integrates into the BSN program. Nursing, with over two million members, is the largest body of healthcare providers. Its diversity with a clearer differentiation of education and
scope of practice can benefit society, as impinging internal and external forces are managed by the growing profession.

Consequently, the onus is on educators in baccalaureate and graduate programs to establish their curricula and clinical practice experiences as the professional entry into nursing and more advanced career preparation. The educators need to validate that higher education through a university-based nursing education is the professional entry into nursing practice to meet the needs of society and strengthen nursing as a discipline and profession. Based on current healthcare trends and the sheer number of nurses, the field has a high potential for dislocations. Nurses will need to gain the knowledge and skills to redirect professional practice and education to meet new and expanded roles. Baccalaureate and masters level preparation will improve the nursing profession's capability to work more independently in various healthcare delivery systems, including: (1) communities, (2) schools, (3) places of worship, (4) work sites, (5) businesses, and (6) homes. Healthcare reform provides nursing with an opportunity to proactively focus the field's education requirements to meet the healthcare needs of the twenty-first century.

Various healthcare groups are issuing reports offering opinions as to the future of healthcare professions and the changes needed in their education requirements to address the emerging fundamental changes in American healthcare. The Pew Commission (1995) forecasts: (1) surpluses of physicians, nurses, and pharmacists; (2) the consolidation of allied health care providers into multiskilled professions; and (3) the need to increase the number employed in public health professions to meet the market-driven healthcare system. The Commission's recommendations that all healthcare professions include enlarging the scientific
bases of their educational programs while retaining the specialized studies necessary for their individual professions. In addition, the Pew Commission recommends: (1) cross-teaching, (2) effective team integration in the delivery of quality, and (3) cost-effective care be incorporated into the educational theory and clinical experiences of professional healthcare education programs.

Specifically targeting nursing, the Pew Commission report (1995) recognizes the differences in the three educational pathways to become a registered nurse. It states that: (1) the associate nursing of nursing preparation is appropriately limited to hospital care, (2) the baccalaureate level is for hospital and community settings, and (3) the masters-degree level is for specialty, independent practice, and primary care providers. Career ladder programs are to be made more accessible to promote continuing and advancing education. The Commission's suggestions include reducing diploma and associate degree program and concentrating on expanding masters-level nurse practitioner programs through federal financial support. New models of nursing education are to include: (1) clinical opportunities in managed care and integrated healthcare systems, (2) continual improvement theory, and (3) innovative and holistic work re-design emphasizing the clinical management role of nursing.

The Pew Commission Report of 1995 also raises the issues of regulating professional healthcare education and their practice environment. The Commission believes there is a need for more flexible scopes of practice for different types of practitioners providing similar health services. In addition, the Commission questions how continued competency is maintained after initial licensure. The report identifies a need for effective, ongoing competency assessments to protect the public. Moreover, the Pew Commission believes that, in general,
education for professions may be too long, too expensive, and not sufficiently meet the needs of students and society.

Another public healthcare interest group, the Alliance for Healthcare Reform, (1996) recommends new sources of financial assistance for nursing education through direct grants to students and educational programs, along with creating new Medicare funding formulas. The improvement in financial assistance is intended to promote enrollment in and further development of BSN and MSN programs. These programs will produce nurses with the skills most necessary for fulfilling future healthcare needs. The preparation of nurses targets community, primary care, and advance practice. Higher minority enrollment is a goal aimed at increasing nursing profession participation among the various racial, ethnic, rural, and inner city populations.

A governmental document strongly influencing the future of nursing education is the United States Department of Health and Human Services (1991) publication Healthy People 2000. The Report's goal's set forth a future direction of the healthcare sectors. One focus is on promoting the development of health and prevention activities within a team framework. Its objectives are another impetus to alter nursing curricula and clinical practice models to achieve better preparation of nurses and, hence a better quality of life for society.

Academia, itself, is calling for quality in higher education. New curricula are being sought for higher nursing education involving: (1) critical thinking i.e., analysis, synthesis, problem solving, and inquiry; (2) continuous learning through life, as the "half-life" of knowledge is shortening; and (3) creativity in thinking. The new suggested curricula are designed to give the students a sense of responsibility and hope for the future (Levine, 1989).
Globally understanding the future workforce, societal changes, and TQM and its underlying sociological concepts will assist in creating a nursing curriculum and departments or colleges of nursing for the future. The profession of nursing is responding to the changing needs of society, as educational leaders are striving to prepare quality nurses for the twenty-first century. The American Association of Colleges of Nursing's (1993) Nursing Education's Agenda for the 21st Century acknowledges the challenges of future healthcare. Advanced practice graduate programs will focus on primary care, case management, education, specialization, and administration needs in diverse healthcare settings. BSN education will emphasize community-based primary care, health promotion, health maintenance, and cost-effective coordinated care to meet the needs of culturally diverse and underserved populations. Nursing research will study nursing interventions and outcomes among underserved and underresearched individuals, families, and communities. In addition, practicing nursing faculties will provide direct care services as a method of integrating the elements of nursing education's mission of education, research, and service.

Nursing educational institutions are being offered the means to revise their curricula, enabling future nurses to be more effective under healthcare reform. The American Nurses Foundation (1995) is offering a Managed Care Curriculum for Baccalaureate in Nursing Program. The curriculum consists of six credit hours of theory and clinical experience to prepare the BSN student for the new managed care delivery of healthcare. Quality improvement along with quality and cost containment dilemmas are addressed in the curriculum.
Nursing theorists have been generating research to build a body of nursing knowledge applicable to practice and education. Some of their research concentrates on the developmental phenomena of the human experiences of life, birth, health, illness, and death. Their theoretical and research-based findings can guide nurses in caring for patients, families, groups, and communities.

The public, higher education, the nursing profession, and nursing education acknowledge changes in society and the crisis in healthcare including: (1) high costs, (2) limited access, and (3) quality issues. Each sector offers recommendations speaking to its concerns for the future of healthcare, and the profession's needs in practice and education. A consensus of these sectors is that professional nursing education provides the knowledge, skills, and the professionalization of nursing students, preparing them to practice in a variety of healthcare settings in response to society's needs.

The Integration of Total Quality Management Concepts into Professional Nursing Education

Quality healthcare for the future can be promoted through the integration of TQM concepts and their underlying sociological and educational concepts into nursing education. Learning from educational and healthcare institutions that have successfully incorporated the tenets of TQM to accomplish quality outcomes will enable nursing faculty to integrate TQM concepts into nursing education's theory, clinical experiences, and departmental or college management. In addition, the synthesis of TQM tenets and their underlying sociological and educational concepts into nursing education will facilitate the students' acceptance of TQM into their professional nursing practice. Because TQM's underlying concepts are drawn from
the social sciences commonly studied in nursing's existing curriculum, they are likely to be known to the nursing students. The technical and humanistic elements of TQM blend into nursing education, thus nurses can learn how to be accountable as professional individuals, while functioning in tandem as members of a healthcare team.

Quality: A Quantitative and Qualitative Synthesis

In developing a nursing curriculum, the faculty can be mindful of the concept of quality i.e., meeting, and even exceeding, the needs of education's prime customer, the student. By listening to the voices of the customers: (1) the students, (2) the educators, (3) healthcare organizations, (4) nursing services, and (5) the public, the nursing education curriculum will be designed to prepare students to function in the changing healthcare scenario.

As Deming (1986) stated and Covey (1989) reiterated, creation first takes place in the mind, and secondly, in the physical realm or practice. Thus, nursing curriculum must first integrate TQM theory as the basis for TQM's synthesis into clinical experiences. As TQM becomes a standard in healthcare, clinical experiences will expose students to emerging roles in a changing healthcare environment that is seeking quality care.

The integration of TQM into nursing curriculum's theory component can promote a student's individual growth. Quality is a personal responsibility; individuals contribute to quality as single human beings as well as team members (Roberts and Sergesketter, 1993). Quality must begin within the individual before one can affect quality in the environment. A sense of personal maturity is achieved before interdependency and effective interpersonal
relationships. Thus, the student must learn effective interpersonal communication skills for personal, therapeutic, and team relationships. Therefore, developing individual professional accountability is compatible with developing teamwork skills.

Understanding that quality is a personal mastery and incorporating this thinking into the nursing curriculum is a foundation for preparing students to be members of quality seeking institutions. This thinking, espoused by both Senge (1994) and Covey (1990), is in concert with nursing education. Through counseling, guidance and value clarification, the faculty, as coaches and facilitators, assists students to achieve quality lives through personal and professional growth.

A nursing curriculum which incorporates TQM concepts readies the student for future healthcare reform by the professionalization of the student into a quality-oriented society and the Quality Movement. TQM is not only a philosophy, but it is also an action-oriented undertaking. Incorporating TQM concepts into nursing's curriculum prepares nurse leaders to provide quality healthcare by linking the TQM concepts to the five components of healthcare. For example, a TQM philosophy supports the availability of quality healthcare through valuing the use of employee minds to discover technological advances and to conduct research to improve quality care. The application of TQM improves the accessibility of healthcare by promoting the development of nurses as healthcare providers, creating new roles to provide services to the underserved population. Striving to provide quality, cost-effective nursing care is promoted through TQM. Continuity of care is supported through TQM concepts in meeting the holistic needs for patient care as the patient moves through the
system of healthcare services and back to his/her place of residence. For example, the integrity of the "Circle of Care" is maintained through case management.

It is also important to incorporate into a nursing curriculum the knowledge of the history and evolution of the Quality Movement to address the future of quality in healthcare. This historical knowledge gives students a sense of: (1) the magnitude of the Quality Movement, (2) the TQM heritage, and (3) the TQM following built by the major quality proponents, such as Deming. An historical perspective explains the rationale and applicability of Deming's theories to nursing practice. Deming's (1986, 1993) quality improvement knowledge includes; (1) his fourteen points, (2) seven deadly diseases, and (3) his system of profound knowledge. Deming's system of profound knowledge incorporates: (1) the knowledge of systems, (2) variation, (3) psychology, and (4) the theory of knowledge. Learning about systems opens one's mind to a global perspective, defining phenomena through a comprehensive viewpoint. Because people, products, and services have variations, to function in the future work world, nurses need to understand the causes of these variations and the use of statistical controls to predict performance. The study of psychology provides student nurses with the understanding of individualism, motivation for self-esteem, and individual recognition. Lastly, student nurses need to comprehend the theory of knowledge. "Rational prediction requires theory and builds knowledge through systematic revision and extension of theory based on comparison of prediction with observation. Theory is a window into the world" (Deming, 1993, p. 105).
The Customer and the Uniqueness of the Individual

The second TQM concept is that of the customer and the uniqueness of the individual. The discipline of nursing is embedded in theories and concepts that are in accord with the concept of the uniqueness of the individual. A common framework for nursing is the study of person, health, and environment. This framework recognizes a person's biopsychosocial and spiritual natures. The uniqueness of the individual is a concept espoused by nurse theorist Hildegard Peplau (as cited in Forchuk, 1995) in her theory the therapeutic nurse-client relationship is the essence of nursing. The uniqueness of the nurse-client relationship is due to the individual qualities, personalities, and perceptions that the nurse and client bring to it. Another nurse theorist, Dorothea Orem (as cited in Forchuk, 1995), supports the important concept of self-care, illuminating the importance of the patient/client's decision making in healthcare and gaining control of his/her unique healthcare. Sociologists Talcott Parsons and Andrew Twaddle (as cited in Jaco, 1979) speak of a "sick role" that is assumed by an individual at the time of illness and how it is influenced by various factors unique to the individual. Lastly, phenomenological interpretation and research into nursing assists nurses to understand the essential meaning of each nurse's experiences in caring for the patient/client, disclosing the unique human meaning behind the care provided by a nurse and a patient's illness (Bishop and Scudder, 1991). Through individual patient education and advocacy the nurse helps the patient to find personal meaning in their illness.
TQM as an Organizational Culture

The third TQM concept, TQM as a culture, is integrated into the new nursing curriculum paradigm through the viewpoint of the organization as a system. The knowledge of systems thinking, organizational learning and organizational behavior which are components of TQM is fundamental to understanding the changes in healthcare. Large-scale social changes, such as healthcare reform, requires systems thinking. The actual changes that will emerge from the healthcare reform are difficult to predict. However, knowledge of organizational culture and behavior will enable the nursing student to see "wholes" in their nursing roles as coordinators of care within healthcare organizations.

Along with quality, healthcare organizations are seeking cost-reduction measures. Therefore, a new curriculum for nursing students should address the socioeconomic, political, ethical, and legal factors in changing healthcare systems to reduce costs. Business thinking would enable nurses to assist in cutting costs without losing quality. With this knowledge nurses can better understand their new roles, the expected norms, and new values in healthcare organizations. Armed with this knowledge, nurses can be change agents for quality care and a quality organizational culture.

Not only does nursing education need to synthesize the TQM concepts into a new curriculum, but also nursing education needs to offer students an opportunity to learn how to work in a healthcare system striving for quality. Students can learn by participating in the application of TQM principles in their educational environment. If a nursing college or nursing department incorporates TQM into its system as an organizational culture, it can benefit by benchmarking the organizational quality transformations of such universities and
colleges. Some colleges of education are altering their present bureaucratic organizational cultures and adopting a TQM way of life. They identify the customers they serve. Collaborating with their customers and employing TQM techniques improves the teamwork, processes, and outcomes of the teaching-learning interaction.

Nursing education's customers are not only the students, but also the suppliers of students for nursing, including secondary schools and associate degree nursing programs. Other customers of nursing education are the employers of the students i.e., the healthcare organizations, and nursing/patient services within the healthcare organizations. In addition, departments within the educational organization are each other's customers. Therefore, forming "inter-customer" teams to improve educational services benefits many groups of customers.

Working in teams creates open dialogue, enhancing the participants' understanding of needed improvements from the viewpoints of internal and external customers. Educators interact at the point of service with students. In addition, the students' themselves, are responsible for their learning, so both faculty and students are to be represented on interagency or interdepartmental teams. This representation empowers faculty and students, and gives credence to the proposition that the educational organization values their intellectual capabilities to determine what affects them as educators and as students, respectively.

A college of nursing that engages in a TQM organizational transformation is a "learning organization" as proposed by Senge (1994). Senge proposes leadership roles which are applicable to faculty in colleges of education. These roles are: (1) researcher, (2) designer,
(3) steward, and (4) teacher. Nursing researchers contribute to the quality of care and influence healthcare policy decision making. Preparing future nurses to meet the changing healthcare delivery system, nurse educators design new curricula and models of nursing, teaching students the knowledge and the skills for quality and cost-effective healthcare delivery. As stewards, faculty empower students to achieve their potential through education and as teachers, educators facilitate learning.

In a TQM culture, the nursing faculty, students, and administration jointly assess the organization's systems, processes, values, and mission. Each of these elements affects the outcomes of student learning. Sociologists can assist the evaluating group in understanding the underlying, guiding sociological concepts of a TQM culture. This would include defining a classroom as a system, as Parsons (1964) suggested. Sociologists and/or qualitative researchers, Fredericks (1973) and Miller (1977), have stressed the relationship of culture and values to persons and groups. Coleman (1990) has recommended implementing policies at the lower levels of the system because the system's behavior is the result of the actions of the individual. In addition, the faculty can utilize the change theory of Lewin (1948) to assist in the quality transformation within their own department or college.

Support for collaboration with customers reflective of a TQM culture is expressed in the American Association of Colleges of Nursing's (1993) position statement Education and Practice Collaboration: Mandate for Quality Education, Practice, and Research for Health Care Reform. The statement addresses the need for leaders in educational and practice settings to share values and principles in order to attain the goal of quality education, practice
and research. Such sharing will assist in mainstreaming education and healthcare organizations into a TQM culture.

Team, Problem Solving, and the Group Concept

The fourth set of TQM concepts, composed of teams, problem solving, and the sociological concept of group, is applicable within nursing education. Including teamwork concepts in a nursing TQM curriculum will prepare student nurses for the future workforce of teams. A TQM curriculum for student nurses provides an understanding of the underlying sociological concept of group that exists in teams, preparing them to function in quality and interdisciplinary teams. Homans (1968), Sorokin (1962), Merton (1968), and Knowles (1959) describe the sociological perspectives of a group. Their ideas view a group as a phenomenon in which people: (1) interact, (2) assume collective characteristics, and (3) establish norms to fulfill shared purposes. In addition, teamwork is built on trust, fostering the synergy of multiple minds and resulting in creativity, innovation, and team learning. Team learning is important because it is the learning unit of an organization (Senge, 1994).

Team creativity and innovation are requisites in problem solving on quality project and process teams so that quality is designed into their results. Problem solving in groups involves: (1) analytic study, (2) conflict resolution, (3) seeking a win-win solution, (4) consensus decision making, and (5) operationalizing definitions to measure outcomes. TQM tools, such as the Shewhart chart, and the Deming cycle are commonly employed by quality teams. The basis of the Deming cycle is the scientific method of problem solving which, when applied to nursing actions, is known as the nursing process. Thus, the quality improvement
process is interrelated with the nursing process and patient care (Zager, Penn, Whitlatch, and Harper, 1992), creating an environment which is conducive for practicing nurses and student nurses to participate in team problem solving.

The TQM team concept extends into nursing education's teaching and learning strategies. For example, interjecting teamwork and team teaching into interdisciplinary programs, broadens the undergraduate and graduate students' worldview by exposure to various philosophies (Blaisdell, 1990). A broadened worldview helps to prepare the students to enter into the globalization of interrelationships among countries and within the multicultural population of the United States. Integrating disciplines in nursing education through interdisciplinary curricula and team teaching creates a novel approach toward nursing education, while maintaining appreciation for the integrity of the separate disciplines. On the classroom level, learning in groups and through teamwork assists the student nurse to gain the practical experiences that are expected in their clinical practice. During the clinical experience, students need the opportunity to participate in interdisciplinary healthcare teamwork and observe their functioning. This pragmatic experience prepares them to function in various types of intra- and inter-organizational teams in professional, community, or healthcare organizations in the real work world.

Continuous Quality Improvement, Learning, and Evaluation

The last TQM concept to be integrated into the education of nurses is that of continuous quality improvement, learning, and evaluation. Continuous quality improvement is a goal, process, and motivating factor for ongoing betterment. A professional nurse is
expected to have a commitment to life-long learning, to be motivated to learn new knowledge and expand skills. This dedication to continuous learning will improve patient care and promote personal growth. Improvement through learning is inherent in personal and professional growth, and should include learning about TQM and the Quality Movement as they affect healthcare. A student nurse or practicing nurse can learn about TQM in various ways. TQM, as a healthcare trend can be included in the nursing curriculum of students in higher education. Because the minds of the employees in a TQM and learning organization are valued, both formal and informal modes of TQM education are encouraged for practicing nurses. An individual nurse can gain knowledge about TQM through self-directed learning, reading, attending continuing education quality programs, and interacting with members of quality-promoting associations, such as the American Society of Quality Control or the National Association of Healthcare Quality.

Continuous quality improvement also encompasses the educational concept of evaluation. The concept of evaluation is applied in various manners to continuously improve quality. Growth and change in behavior i.e., learning, is accomplished through metanoia, a paradigm shift in a person's way of life. In nursing education, self-evaluation by students and peer-and self-evaluation by educators can be used to achieve personal growth. In addition, evaluation of the nursing education's organizational structure, processes, and outcomes provides feedback from its internal and external customers. Nursing education's customers are students, educators, and any other groups of people interacting with the college of nursing, such as (1) university departments, (2) healthcare organizations for clinical experiences, and (3) healthcare professionals.
Outcomes of learning can be measured on summative and formative bases to improve quality in nursing education. To improve quality in a more frequent and direct manner, some educators have suggested that a simple, short evaluation can be done at the end of each class, addressing the topics and methods of teaching and learning for that class. This "instant feedback" can spot areas of learning that may need to be reinforced, while they are still fresh in the memory of the students and the "instant feedback" acts as a foundation upon which the next class can build. Employing TQM tools to elicit student participation in evaluating and designing the classes and curriculum allows the student, as customers, to share in the accountability for their own education. Other methods utilized for evaluation and continuous quality improvement are: (1) surveys, (2) focus groups, and (3) benchmarking to seek data from both the internal and external customers.

Evaluation strategies are future focused, gathering data to prepare nursing students, faculty, and the educational organization to meet the challenges of the major healthcare trends and allowing the comparison of feedback data to established standards. Sources for standards are provided by: (1) educational accrediting bodies, (2) professional organizations, (3) consumer groups, and (4) governmental services, many of which have offered clinical quality indicators and national health objectives.

Quality education outcome measurements evolve from the goals and objectives of the nursing education program, which prepares students to meet the needs of society in the context of a changing healthcare delivery system. These outcomes include a student's skills in critical thinking and in interpersonal and nursing intervention (National League for Nursing, 1991). On an organizational level, a self-study by the college or department of nursing can
address the outcomes of the educational program and the quality of the students from the perspective of employers. Employers can provide data indicating how well the professionalization of the student enabled the graduated student to perform in real practice settings and provide quality care. Additional areas of organizational self-study include: (1) graduation rates, (2) effectiveness of graduates to minister to the underserved, (3) employment patterns, (4) graduate satisfaction, and (5) professional and personal development. The qualitative and quantitative research conducted by nurses and other healthcare providers is another source of educational-outcomes evaluation, addressing the quality of patient care outcomes. This research affects the nursing education, and the discipline and the practice of nursing.

Lastly, continuous quality improvement is a goal and motivating factor for continuing education of nurses. Acquiring knowledge must be continuous as knowledge becomes obsolete in less than five years. Therefore requiring ongoing education for healthcare professions is necessary (Drucker, 1993). Nursing educational institutions and professional organizations which provide continuing education offerings for practicing nurses can effectively prepare nurses to meet healthcare needs by addressing timely and future issues. Some examples of timely issues are: (1) emerging ethical dilemmas in nursing and healthcare due to healthcare reform; (2) the effective application of research findings to nursing practice and quality-oriented patient outcomes; (3) the attainment of quality improvement knowledge and skills and their application on institutional, regional, and national levels; (4) the accountability of nurses within the five components of healthcare; and (5) the effectiveness of education to ready nurses to perform in emerging nursing roles.
Continuous quality improvement is a TQM concept that naturally dovetails into formal and continuing education for nurses because learning and evaluation are inherent in nursing education. Moreover, the synthesis of TQM's continuous quality improvement into nursing education adds value to the importance of learning and evaluation for the nursing profession, as a whole, and individual nurses.

In summary, nursing education reflects the complex problems generally facing higher education along with the additional impact of a nation-wide healthcare reform. Critics of healthcare reform who value the importance of the quality of care are demanding that the quality of patient care outcomes be researched and ensured. Thus, quality in healthcare is definitely a current and future goal. Likewise, quality in education is being sought by society. Nursing education is affected by both healthcare and education reforms to improve quality. TQM, as a philosophy and methodology, has been counted as a contributory factor in achieving quality in manufacturing and service industries, and in initial successful quality endeavors in education and healthcare. Thus, the synthesis of TQM concepts into professional nursing education presents an opportunity to: (1) improve the quality of the professionalization process of nursing education, (2) enhance the quality of patient care, and (3) prepare nurses to meet the healthcare needs for the twenty-first century.

The Synthesis of Total Quality Management Concepts into Professional Nursing Practice Through a Care/Case Study

The TQM concepts, their underlying sociological and educational concepts, and the extrapolated basic findings are synthesized into professional nursing practice through a
hypothetical care/case study. The care/case study illustrates the utilization of a patient/family interdisciplinary healthcare team meeting as a TQM tool to promote quality care (Gaffke, 1994). A healthcare team meeting's purpose, underlying principles, structure, and process are discussed. The five components of healthcare (Dunlop, 1976; as cited by Fredericks, 1992) is applied as a systems perspective to patient care. This application illustrates that the five healthcare components are not only standards to be addressed on the macro level of the healthcare industry, but also on the micro level, at the point of service for individual patients. Various processing tools to operationalize the team meeting are discussed.

A patient/family interdisciplinary healthcare team meeting is a coming together as a group to listen to the "voices" of the primary healthcare customers. The primary customers are the patient and family, as it is their healthcare needs that are to be met. The healthcare team consists of the patient, family, and care healthcare providers who contributes to the quality of that patient's care. The healthcare providers, as customers of one another, collaborate to ensure the patient's and family's needs are satisfied. Through synergy there is a "meeting" of the minds and a holistic plan of care is formulated based upon the patient's and family's decisions, empowering the patient and family. A healthcare team meeting can be held anywhere that is accessible to the healthcare team. Some healthcare settings, such as long term care facilities, are more conducive to implementation of such meetings because the patient remains in the facility for a longer length of stay. A meeting could feasibly occur in a patient's home if the patient is receiving home care. Conversely, it is a challenge to provide meetings in healthcare settings where patient-healthcare team contact is limited in time, such as in acute care settings and outpatient settings.
To facilitate achieving quality outcomes, the objectives of the healthcare team meeting can be based upon the conceptual framework and underlying concepts of TQM. Additional frameworks applicable to guiding the development of a plan of care are the five components of healthcare and Maslow's Hierarchy of Needs (Maslow, 1970). The five components of healthcare (Dunlop, 1976: as cited in Fredericks, 1992) serve as a systems' overview and assist the healthcare team in organizing the patient's plan of care through an analysis of the following: (1) availability, (2) accessibility, (3) affordability, (4) continuity, and (5) quality of care. Maslow's Hierarchy of Needs assists the healthcare providers in personalizing patient care. The use of these concepts and theories facilitates an integrated, individualized plan of care for that patient and family.

Quality: A Quantitative and Qualitative Synthesis

The primary objective of the patient/family interdisciplinary healthcare team meeting is to promote quality of care. All healthcare decisions belong to the patient. If the patient is unable to speak on his/her behalf, then someone, the family or significant other, does so. Sometimes specific directives have been preestablished, by the patient, such as in a living will and/or advance directives. These advance directives are legally binding. Not only are the patient's needs to be met, but, since the patient is a member of the family unit, and that unit is affected by the health of its members, the family also requires attention. Thus, the quality of care includes supporting the family as the patient's primary group contact. The quality of care is judged by the persons receiving it, the patient and family. Empathetic listening to them during the time of interaction gives the healthcare providers instant feedback regarding the
degree to which the customers' needs are being met. Effective communication among the patient, family, and care providers is essential for quality care.

Prior to the healthcare team meeting, TQM tools can be used by healthcare professionals to identify defects in processes affecting the patient's care. For example, the use of a flow-chart can determine problems in obtaining a particular piece of equipment for the patient's care. Plotting the steps in the process of acquiring the equipment will shed light on possible breakdowns in communication preventing the securing of a necessary piece of equipment for the patient. Thus, TQM tools are practical ways to analyze processes to improve patient care.

Customer and the Uniqueness of the Individual

In TQM, a customer is any recipient of the service. In healthcare, the customer is the patient and the family. The uniqueness of the patient and the family drives the plan of care to ensure that it is individualized. Certain factors, such as the patient's, personality, values, culture, ethnic background, and assumed sick role, are considered in evaluating the unique meaning of the illness and health of the individual. A holistic approach to the plan of care taking into account factors pertaining to the mind, body, and spirit, is employed in the healthcare team meeting. The physical, psychological, social, and spiritual needs of the patient, as well as those of the family are affected by the patient's health and illness are addressed. Thus, the plan of care developed by the healthcare team will be designed to provide the patient and the family with any necessary healthcare knowledge, technical skills, and a psychological support.
Based upon Maslow's Hierarchy of Needs (Maslow, 1970) an organizing tool centering on the holistic and individual needs of the patient is utilized by healthcare providers to assist in planning the healthcare team meeting and implementing the patient's plan of care (see appendix B). A patient's needs are to be met, ranging from the most immediate needs for physical survival and safety to the higher order needs of affiliation, self-esteem, and self-actualization (as cited in Northcraft and Neale, 1994, p. 106).

Ideally, each patient, as the primary customer and a member of their own healthcare team, should have a healthcare team meeting. However, this is not usually possible. According to the healthcare setting and circumstances, it may be necessary to establish criteria and procedures for determining which patients require a healthcare team meeting. Any one of the criteria, in itself, could warrant a care meeting. However, most likely, the patients and families selected would have several impending needs that are critically impacting the patient's health. Examples of the criteria employed would include a patient: (1) using complex technology, such as life support systems; (2) requiring a complex surgery, such as an organ transplant or open heart; (3) demonstrating intense psychological problems; (4) exhibiting compliance problems; (5) requiring multiple readmissions to an acute care facility; and (6) chronic, debilitating illnesses with frequent exacerbations. Other patient and/or family criteria include: (1) ineffective communication among the patient, family and healthcare providers; (2) family coping problems; (3) complex home care; and (4) lack of a clear plan of patient care. Even if healthcare providers propose a healthcare team meeting to achieve quality care for a patient, such a meeting will take place only if the patient and/or family desire to have it.
TQM as an Organizational Culture

If TQM is the culture of a healthcare organization then TQM's norms, roles, and values are the organization's way of life. Quality of care is the healthcare organization's mission, vision, and value. This organizational philosophy is shared by its employees, and is evident in their behavior and the care provided. The patient/family interdisciplinary healthcare team meeting is an expression of the importance of the patient as an individual. It is reflective of the organization's philosophy and is supported by the organization's leaders. Therefore, because the meeting is valued, staff are able to attend and their concurrent responsibilities are covered by others, as assigned by management.

With a TQM culture as a philosophy, the five components of healthcare offers a systems perspective to assist in the implementation of a patient's care plan (see Appendix, C). This tool identifies common available services that healthcare systems can provide to achieve the goal of quality care, as perceived by the patient and/or family. The identified services in the tool is adapted to the individual needs of the patient and the family, as necessary. In terms of a quality care plan, consideration can be given to the patient care services that are offered: under availability, resources that are attainable to patient are: (1) treatments, (2) technology, (3) equipment, (4) special healthcare services, (5) healthcare specialists, and (6) primary care providers. Sites of care to be considered under accessibility are: (1) home, (2) acute-hospital, (3) hospice, (4) subacute, (5) long term, and (6) ambulatory. Affordability, financial sources or factors, includes: (1) managed care, (2) Medicare, (3) Medicaid, (4) fee-for-service, (5) uninsured, or (6) underinsured. Lastly, continuity of care addresses: (1) a plan of care, (2) critical pathways, (3) case management, (4) patient/family interdisciplinary healthcare team
meetings, and (5) patient education and advocacy. These are all common factors that need to be considered in planning the care of a patient, acting as a reference point for processing the healthcare meeting.

Team, Problem Solving, and Group Concept

The patient/family interdisciplinary healthcare team is based upon the sociological concept of group, and its purpose is patient-focused, centering on what is necessary to meet the patient's needs. The healthcare team members function both independently and collaboratively. The healthcare team meeting really offers the opportunity for the healthcare team to work in synergy. Team members, including the patient and family, interact to share information, dialogue, discuss, and problem solve, developing a holistic plan of care. Factors unique to this approach, as opposed to a more common or traditional care conference methods, are: (1) the patient and/or family are present, empowering them to make decisions; (2) all relevant healthcare providers are present, listening to the patient and/or family, rather than merely speaking among themselves without patient and family participation; and (3) all are partaking in verstehen, understanding the meaning of the illness through the patient's and family's eyes. There is a therapeutic benefit to such a meeting which empowers the patient and family through their direct participation in and control over the care decisions being made and in their implementation.

The healthcare providers attending the meeting cross the continuum of care and can include any care provider that has cared for or is going to care for the patient in the course of the illness or upon discharge. The number of attendees is not as important as the information,
communication, and therapeutic milieu that is experienced by the group. Legally, and ethically, all information discussed in the meeting is confidential. With the patient's consent, close friends of the patient can attend the meeting, as they may be deeply involved in the care of the patient.

Problem solving through open communication within a trusting environment results in unbelievable accomplishments that benefit the patient and family. Patients and families sense that their voices are heard and that their wishes are honored. The impact that the group can have as a whole, especially because the patient and family are included, is powerful. Each person's unique contribution is not only in their specialized field of knowledge or through the lived experiences of the patient and family, but collectively the group is able to provide solutions that best suit the patient. There is a feeling of great satisfaction for the staff, knowing that time has been given to allow the patient to express his/her concerns, and viewpoints, and that the patient has been empowered to make the decisions that affect his/her life. For the patient and family, information often surfaces that previously they may not have known, enabling them to make better patient care decisions.

The need for a patient/family interdisciplinary healthcare team meeting may be suggested by any member of the team, though most often it is requested by the nurse caring for the patient. The meeting is planned, coordinated, and conducted by the patient's nurse and/or the Clinical Nurse Specialist. The Clinical Nurse Specialist has the group processing skills needed to conduct a meeting with complex group dynamics. The patient and family may not have participated in such a meeting previously. Also, intense emotions surround the complexity of the care with a possible life-threatening condition for the patient. Therefore,
each healthcare team meeting is as unique as each patient. However, with trust and genuine respect for the patient and family, the tone of the meeting is one of caring. This caring milieu is felt by the patient and family, strengthening the relationship among the patient, family, and caregivers to provide quality care. The trust and caring experienced by the healthcare team can extend to the interrelationships with the patient, family, and care providers after the meeting, assisting the patient and family through difficult periods of the illness. If fostered by the healthcare team members, the special rapport established through the meeting lingers. After the meeting, the Clinical Nurse Specialist coordinates the follow-through with the decided plan of care. As the patient's condition changes the plan of care is adjusted, in accordance with the informed choices of the patient.

Continuous Quality Improvement, Learning, and Evaluation

A patient/family interdisciplinary healthcare team meeting provides an opportunity for continuous quality improvement within the healthcare team. The professional members grow in their interrelationships as collaborative healthcare providers. There is personal growth as the patient and family make informed healthcare decisions. All the team members learn from one another.

Evaluation is associated with the meeting to continuously improve care for patients. The perceived effect of the plan of care upon the patient and family can be solicited by asking them. They will voice their opinions. Some organizations formally collect this data through standardized questionnaires upon the patient's discharge from the hospital. However, most
often, the patient and family will judge the care at the time it is given, letting their view be known through verbal or nonverbal communication.

An example of a patient/family interdisciplinary healthcare team meeting is illustrated. A 45 year-old single, male patient who lives with his parents is readmitted to the hospital intensive care unit in a hospital due to an exacerbation of a chronic debilitating respiratory condition. After a few days, the patient is transferred to the medical unit. The parents and patient express anger and depression that the prognosis is so poor. In fact, the patient has been having dreams that he is going to die and has discussed the dreams with his nurse. During his stay in the hospital, several care providers are attending to the patient: (1) a primary physician and two consulting physicians, (2) social worker, (3) Clinical Nurse Specialist, (4) respiratory therapist, (5) physical therapist, and (6) a nutritionist. Although the patient is bedridden, the patient is alert and capable of making his own decisions.

Utilizing the nursing process, the Clinical Nurse Specialist assesses the patient's and family's need for a meeting to address the coping problems and empower the patient to develop a plan of care with the care providers. The Clinical Nurse Specialist plans, coordinates, conducts, and evaluates the effectiveness of the meeting along with its patient outcomes. The meeting is planned with the use of the Patient-Family Interdisciplinary Healthcare Meeting Plan (see appendix D). All persons are asked to attend whose input to the plan of care would affect the patient care outcomes. This includes the intensive-care unit nurse, the home healthcare nurse and the respiratory therapist, along with the pastoral care person. A time and date to meet are agreed upon. The Clinical Nurse Specialist then discusses the meeting with the patient, seeking his agreement and preparing him to be the focus of the
meeting. Because the patient wished to be present at the meeting, it is to take place in his room.

The day of the meeting the team members gather in the patient's room with his parents. Not all the team members are present; due to an emergency, the respiratory therapist will be late and only one of three doctors can attend. However, the meeting takes place, for it will only be canceled if the patient's condition warrants it. The course of the healthcare team meeting is guided by questions asked by the patient and the Clinical Nurse Specialist to obtain information that would be helpful to the patient in decision making. Others in the group share in the dialogue and in processing the meeting. The Clinical Nurse Specialist takes notes using the Holistic-Patient Care Plan, as a guideline (see appendix B). The goal of the care meeting is quality care through patient decision making. Of main concern to him and the parents is how the necessary care can be provided, as the parents are older and the son requires care that has become physically and mentally stressful to the family. Feelings of guilt, anger, and love are expressed by the patient and family. Empathic listening to the patient and parents by the healthcare team is evident. The Clinical Nurse Specialist facilitates the discussion, keeping in mind the five components of health care to guide resource decisions. A special respiratory facility is available that provides care for patients with complex, chronic respiratory problems. A transfer to that facility is the patient's choice, rather than returning home.

The meeting takes about 45 minutes. After the meeting, the Clinical Nurse Specialist follows through with the plan of care. The patient and family express their satisfaction with the outcome of the care meeting. The patient is transferred to the respiratory facility. A few days later, he telephones the staff to thank them for their care. About six weeks later, his
condition worsens and the patient dies. The family invites the staff to the services to mourn the loss of their son. Emotional support is given to the family by the staff and pastoral care. The parents believe and accept that it was the son's wish and decision not to return home to receive care.

This patient/family interdisciplinary healthcare team meeting is an example of putting the patient first, and quality of care was achieved by listening to and meeting the needs of the patient and family. It is an example of integrating TQM concepts into healthcare at the point of care, using a team effort to achieve quality care outcomes, as judged by the customers, the patient and family. The team facilitated a patient/family plan of care determined by them.

A patient/family interdisciplinary healthcare team meeting is cost effective because it considers the best available, affordable, accessible, and continuity of care, for the patient, efficiently utilizing human and organizational resources. Through open communication and decision making by the patient and family, timely planning of care for current and future care needs is possible. To monitor the changing needs of the patient and family, ongoing evaluation of care is necessary. Addressing discharge planning upon the admission of the patient may save future costs (Mamon, Steinwachs, Fahey, Bone, Oktay, and Klien, 1992). In addition, another cost-effective measure is providing patient education to increase self-care, enabling the patient and family to go home. (Bull, 1992).

In summary, the care/case study was an example of the application of TQM concepts and the underlying sociological and educational concepts to nursing practice. It demonstrated the nurse's role in providing quality care through a patient/family interdisciplinary healthcare team meeting. To effectively fulfill emergent nursing roles from healthcare trends and reform,
nursing education's curriculum with its theory and clinical experiences will need to incorporate quality knowledge and skills. The synthesis of the TQM concepts into professional nursing education can assist nurses to meet the healthcare needs of the twenty-first century.
CHAPTER VII

CONCLUSION

The descriptive, exploratory, and historical methodology of this dissertation unfolds the course of the Quality Movement in America, beginning in the manufacturing industry, extending to the healthcare industry and the educational system, and spanning the period of the 1940s through the 1990s. During this period of time, the definition of quality has been evolving. Therefore, quality possesses a multitude of meanings, on social, institutional, familial, and individual levels. Definitions offered for quality include: (1) doing it right the first time, (2) having no defects, (3) being suitable for use, or (4) exceeding customer expectations. Due to the complexity of the concept of quality and its multitude of interpretations, a single definition of quality is wanting. In the context of this paper, the writer defines quality as relative in nature, that is, meeting the needs of the unique individual within a particular environment. Defining quality is a common goal for persons seeking to achieve quality. A person's quest for quality remains incessant, seeking perfection and never fully reaching it to one's satisfaction. This is the hallmark of quality.

The Quality Movement and the emergent Total Quality Management demonstrate society's interest in seeking quality. Total Quality Management represents a body of ideas and actions taken in the pursuit of quality. This body of ideas is interpreted and applied relative to the needs of a person or organization. TQM is associated with technical and humanistic
components on a bipolar continuum. This association is important because it represents the necessary homeostasis required in applying TQM's tenets in the pursuit of quality. The necessity of balancing TQM's technical and humanistic sides acts as a check for persons who, at times, only focus on one side of the bipolar continuum. Thus, individuals or organizations who claim to employ the TQM rationale but achieve results that demonstrate a lack of quality are not truly implementing TQM's philosophy and methodology. Isolating and using the techniques of TQM without the humanistic component is not in keeping with TQM tenets. In the true spirit of TQM, there is integration of both elements in seeking quality. The resultant balancing and harmony of the technical and humanistic elements is challenging and fulfilling. This challenging application of TQM is applicable to the profession of nursing and to nursing education.

Summary

The purpose of this research is to attempt to describe, explore, and analyze the Quality Movement, the emergent Total Quality Management concepts, and their implications for (1) healthcare, (2) the profession of nursing and (3) professional nursing education. The professionalization process of student nurses prepares them to practice in a changing healthcare industry that is seeking quality patient outcomes as society enters the twenty-first century. The exploratory and descriptive analysis of TQM and professional nursing education to meet the healthcare needs addresses the following research questions:

(1) What are some of the Total Quality Management concepts and theoretical orientations that are relevant to the nursing profession?
(2) What relationship exists, if any, between Total Quality Management and the professionalization of professional nursing education?

(3) What are some of the basic findings that can be extrapolated from Total Quality Management and their applicability to the nursing profession?

In an attempt to give evidence of the validity and the reliability of the answers presented to the research questions, primary and secondary resources along with personal experiences are included in the paper. Sources of data embody: (1) books, (2) journals, (3) reports, (4) unpublished papers, (5) newspaper articles, (6) television programs, (7) international quality congress proceedings, and (8) computer searches. Personal experience in applying TQM principles in ambulatory and hospital settings are also integrated into the study.

In Chapter I, the historical tracing of the Quality Movement begins in America in the 1940s with W. Edwards Deming's Total Quality Management, although its concepts and theories were all but ignored. Yet, Total Quality Management was vigorously accepted and applied in Japan after World War II. Some American quality control efforts in manufacturing feebly continued from the 1950s through the 1970s. However, America's quality manufacturing crisis peaked in the 1980s, spurring the reintroduction and promotion of Deming's TQM tenets in America.

The contrast and comparison of the early quality proponents, W. Edwards Deming, Joseph Juran, and Philip Crosby point out commonalities and differences in their perspectives of quality in regard to products and services. Deming adds both a technical and a humanistic viewpoint to quality. Juran talks of the structure and planning process of quality, with Crosby
providing a pragmatic approach for management initiatives. The early quality proponents generated the ideas that lay the foundation for the expansion of TQM to education and healthcare organizations.

The Quality Movement has extended into the service sector of businesses, healthcare and education, and has promoted a heightening awareness of achieving quality of life through personal growth. The emphasis on the humanistic component of TQM is amplified by contemporary quality proponents Stephen Covey and Peter Senge. Patrick Townsend and Karl Albrecht are advocates of the use of TQM tenets in the service sector. Within the Quality Movement, the interplay of thought among theorists seem to have a synergistic affect upon participants. In addition, the work in areas of peripheral influences on the Quality Movement, such as the field of Organizational Development, complements TQM's tenets and adds momentum to the Movement. Thus, shaping the course of the Quality Movement is the synthesis of various ideas, methodologies and philosophies resulting in new ways of thinking.

The progression of the Quality Movement is documented in Chapter III, as it gains supporters and pioneers in the application of TQM in the fields of healthcare and education. This widening of the application of TQM tenets serves as evidence that the ideas of early and contemporary quality proponents are being tested and adopted by new communities of people. Although the utility of TQM in healthcare and education is still viewed with some skepticism, certain educational and healthcare professionals have become TQM supporters and are sharing their successful outcomes related to their customers, whether students or patients. TQM tenets are being applied in certain classrooms and in the governance of primary, secondary, and higher education institutions, in some cases as statewide strategies to
improve the quality of education. In healthcare, various organizations are paving the way for TQM applications, claiming that cost savings are realized.

Nurses, as employees of healthcare organizations or institutions of higher learning that assume a TQM culture, may have the opportunity to share in the benefits of TQM. Initial participation of nurses in organizations applying TQM principles is evident in the literature, but strong nursing leadership in the field of quality improvement needs further development. This quality improvement leadership may be enhanced by the collaboration of the professional nursing educators with business and education advocates of TQM. Through such collaboration, nursing may embellish the efforts to promote quality patient care and may aid in mainstreaming healthcare organizations into the Quality Movement.

Chapter IV establishes and analyzes the Quality Movement as a developing social movement, a social phenomenon of change, creating an awareness of the necessity of improving the quality of products, services, healthcare, and education. Because it is a social movement evolving over time and space, key TQM concepts have emerged forming a conceptual framework with underlying sociological and educational concepts: (1) quality: a quantitative and qualitative synthesis, (2) the customer and the uniqueness of the individual, (3) TQM as an organizational culture, (4) team, problem solving, and the group concept, and (5) continuous quality improvement, learning, and evaluation. These core concepts lay the foundation for the facilitation, justification, and acceptance of TQM across disciplines, and add to TQM's longevity. The analysis of these core concepts gives credibility to the applicability of the TQM tenets which originated in the manufacturing industry.
In Chapter V, the interrelationships and the synthesis of key TQM concepts and theoretical orientations into the profession of nursing and its practice in order to meet the healthcare needs of the twenty-first century are justified. TQM's utility to and future implications for the profession of nursing and practice are demonstrated by addressing healthcare trends and reform through the constructs of the five components of healthcare: (1) availability, (2) accessibility, (3) affordability, (4) continuity, and (5) quality.

The purpose of the profession of nursing is to serve society by fulfilling its healthcare needs. Affecting nursing practice is the 1990s healthcare reform, a comprehensive, unprecedented change in the delivery of healthcare. As changes are occurring, the public is calling for healthcare to provide quality patient outcomes. In response to this call for quality, TQM principles are being utilized and tested for effectiveness in certain healthcare institutions. The profession of nursing, while supporting quality in patient care, is still in the process of appraising TQM's relevance to its practice, education, and healthcare organizations, in light of the rapid changes resulting from the healthcare reform.

At the same time, new and expanded challenging roles are emerging for nurses, as healthcare reform and the workforce trends for the twenty-first century are being forecasted. Integrating TQM concepts and its foundation of sociological and educational concepts into the profession of nursing and these emerging roles support the future healthcare goals of continuous quality improvement, innovation, and quality patient care outcomes.

In Chapter VI, the writer makes proposals for and gives evidence of TQM's synthesis into professional nursing education, e.g., baccalaureate and graduate education, and the professionization of students to meet healthcare needs for the twenty-first century. The needs
of society define the practice of nursing. Conforming to societal alterations, nursing education prepares student nurses through the professionalization process. Public healthcare interest groups point out that nursing education within institutions of higher education offers the capability for nursing to adapt its curricula in response to the metamorphosis of healthcare and the changing population. In the future, nurses with broad knowledge and skills will be needed to serve the public.

The receptiveness of nursing education to TQM can be enhanced by highlighting the profession's relationship to TQM's underlying sociological and educational concepts, as these concepts are espoused by the nursing profession, discipline, and practice. In fact, proponents of TQM from other sectors may benefit from the application of TQM's humanistic side by healthcare and education. On the other hand, these two human services may benefit from certain TQM technical components which are more commonly associated with businesses. For example, the traditional bureaucratic style of management in nursing colleges or departments may benefit from a TQM participative approach, as employed by some Colleges of Education.

By integrating TQM concepts into nursing education's theory and clinical experiences, student nurses will be better prepared as professional nurses, to provide quality patient care outcomes, in accordance with standards mandated by healthcare accrediting bodies. Lastly, through a nursing care/case study, reflecting the verstehen method, the synthesis of TQM concepts into nursing practice gives evidence that TQM's concepts are a natural fit, exemplifying TQM's utility in clinical learning experiences and professional practice. Therefore, nursing education can employ TQM to better prepare students as nurse
leaders and change agents, promoting quality initiatives in healthcare which focus on the primary customers, the patients, and their families. Most important for nursing education is the graduation of student nurses who (1) understand the concept of and the need for quality, (2) believe in quality patient care, and (3) seek to achieve it in their daily practice as professional nurses.

A limitation of this descriptive and exploratory research study of TQM and its implications for the profession of nursing and professional nursing education is related to the rapid changes in healthcare. Due to ongoing healthcare reform, data have continually changed concerning the reforms and their effects on healthcare and nursing during the process of composing this study. Therefore, further research is needed to evaluate the full effects of the application of TQM tenets to the profession of nursing and nursing education.

Relevance to Future Research

In this exploratory and descriptive study, several areas could be subjects for further analysis. For example:

(1) To what degree does the inclusion of Total Quality Management tenets in nursing curricula affect the quality outcomes of patient care provided by the graduated student?

(2) To what degree do the underlying sociological and educational concepts of Total Quality Management foster the utility of Total Quality Management tenets to nursing education and professional practice?

(3) How do student nurses define quality in their education?

(4) How do practicing nurses define quality patient care?
(5) How can the application of Total Quality Management be measured to evaluate that its use results in cost savings in healthcare?

(6) What were the student outcomes in the classes where nursing educators integrated Total Quality Management into their teaching-learning strategies?

This exploratory, descriptive analysis of Total Quality Management and Professional Nursing Education, although limited, represents an attempt to appraise the utility of TQM for nursing, considering the Quality Movement and the dynamic environment of the healthcare reform. The profession of nursing's proactive response to healthcare transformation is necessary and inevitable. The real proofs of the utility of Total Quality Management tenets in healthcare will be: (1) TQM's continuance by future generations of healthcare providers and educators, and (2) evidence and documentation that TQM's application enhances quality patient outcomes.
APPENDIX A

THE TOTAL QUALITY MANAGEMENT CONCEPTUAL FRAMEWORK
THE TOTAL QUALITY MANAGEMENT CONCEPTUAL FRAMEWORK

- Quality: A Quantitative and Qualitative Synthesis
- The Customer and the Uniqueness of the Individual
- TQM as an Organizational Culture
- Team, Problem solving, and Group
- Continuous Quality Improvement, Learning, and Evaluation
APPENDIX B
THE HOLISTIC PATIENT CARE PLAN
Date  Time  Participants:

Purpose:

Plan of Care

Physiological

Vital Signs:  T  P  R  B/P

Oxygenation:  Cardiovascular
              Respiratory

Nutrition:

Elimination:

Sensory Integrity:

Musculoskeletal

Neurological:

Skin:

Mobility:

Comfort/Safety

  Sleep/Rest
  Pain
  Infection Control Precautions
Psychosocial

Family/Significant others involved in care and their support needs.

Self-esteem/Body Image

Reaction to current situation of patient/family

Dependent/Independent behaviors

Copying Behaviors of pt/family

Self-Actualization
  Activities of daily living/Self care
  Short and long term life goals

Spiritual

Privacy

Socioeconomic - Healthcare Coverage

Discharge Planning
  Education
  Transfer
  Utilization
APPENDIX C

THE FIVE COMPONENTS OF HEALTHCARE - SYSTEMS DIAGRAM
THE FIVE COMPONENTS OF HEALTHCARE-SYSTEMS DIAGRAM

Availability

Healthcare Specialists

Primary Care Providers

Special Healthcare Services

Treatments

Technology

Equipment

Accessibility

Home

Subacute

Hospice

Long Term

Ambulatory

Acute-Hospital

Quality Care

Managed Care

Medicare

Fee-For-Service

Medicaid

Uninsured

Underinsured

Affordability

Critical Pathways

Case Management

A Plan of Care

Patient-Healthcare Team Meetings

Patient Education and Advocacy

Continuity
APPENDIX D

THE PATIENT-FAMILY INTERDISCIPLINARY HEALTHCARE TEAM

MEETING PLAN
# Patient-Family Interdisciplinary Healthcare Team Meeting Plan

<table>
<thead>
<tr>
<th>Health Care Team Members</th>
<th>Phone Number</th>
<th>Attend Y/N</th>
<th>Notes</th>
<th>Plan of Care</th>
<th>Responsible Person</th>
<th>Target Date</th>
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<td>Continuity of Care</td>
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<td>Dietitian</td>
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<tr>
<td>Health Care Team Members</td>
<td>Phone Number</td>
<td>Yes</td>
<td>No</td>
<td>Plan of Care</td>
<td>Responsible Person</td>
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<td>Physical Therapist</td>
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<tr>
<td>Respiratory Therapist</td>
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<tr>
<td>Speech Therapist</td>
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<tr>
<td>Social Worker</td>
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Discharge Planning/Patient Family Education
Pre Conference Notes:

Post Conference Notes:
REFERENCES


VITA

The author Barbara Huspen Gaffke was born in Chicago, Illinois. Barbara Gaffke attended St. Elizabeth School of Nursing in Chicago obtaining a diploma in nursing. The Baccalaureate of Science degree in Nursing and Masters of Science in Nursing degree were received from Loyola University, Chicago. While at Loyola University Barbara Gaffke was inducted into the Sigma Theta Tau Society and the Alpha Sigma Nu Society. Barbara Gaffke's broad professional experiences include: hospital staff nursing and advanced practice nursing in acute care, ambulatory, and community healthcare settings; nursing education in the hospital, associate degree program and baccalaureate degree program; and management. Presently, Barbara Gaffke is a certified Clinical Nurse Specialist and consultant for healthcare quality issues. Presentations have been made at various national conferences addressing nursing practice and healthcare issues. Being active in professional organizations, Barbara Gaffke is Chairperson of the Illinois Nurses Association's Assembly on Practice, a member of the American Nurses Association Institute on Nursing Practice, and a member of the statewide 1997 Illinois Nurse Practice Act Planning Committee.
DISSEPTION APPROVAL SHEET

The dissertation submitted by Barbara Huspen Gaffke has been read and approved by the following committee:

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The final copies have been examined by the director of the dissertation and the signature which verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment for the degree of Doctor of Philosophy.

July 15, 1996
Date

Director's Signature