CRITICAL COMPONENTS FOR A SUCCESSFUL IMPLEMENTATION OF TOTAL QUALITY MANAGEMENT IN GOVERNMENT AGENCIES

By

VICTORIA S. DEARING

Bachelor of Science

Oklahoma State University

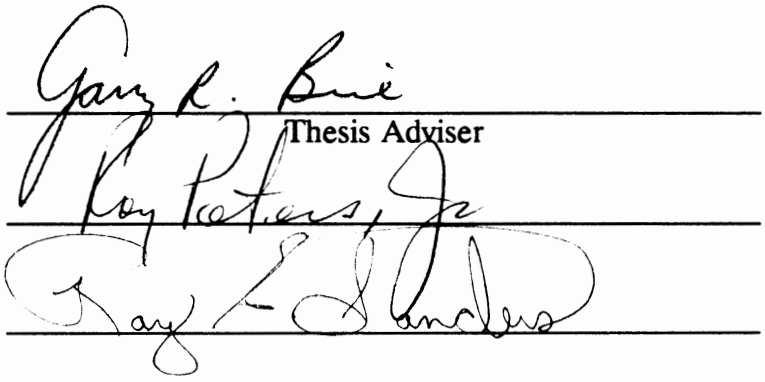
Stillwater, Oklahoma

1970

Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
MASTER OF SCIENCE
December 1993

CRITICAL COMPONENTS FOR A SUCCESSFUL IMPLEMENTATION OF TOTAL QUALITY MANAGEMENT IN GOVERNMENT AGENCIES

Thesis Approved:



Thesis Adviser

Dean of Graduate College

ACKNOWLEDGEMENTS

Deepest appreciation is expressed to Dr. Garry Bice, who helped make this study, and all of my graduate work, truly meaningful. I am also grateful to Dr. Roy Peters, Jr. and Dr. Ray Sanders for serving on my graduate committee.

Many thanks go to the quality specialists who participated in this study. They are true pioneers who are making a difference in government. Special appreciation also goes to those people in the private sector who provided information and guidance for this study, especially Bob Beggs, Mike Yates, Rick Weintraub and Frank Louden.

I am grateful to Sarah Mussett, Juanita Bice and Janet Moore, who have participated with me in many lively discussions on this topic, thus helping me clarify my own thinking.

Finally, I am grateful to my family and friends, whose support and encouragement mean so much to me. "Ya'll" are the greatest!

TABLE OF CONTENTS

LIST OF TABLES

Table

CHAPTER I

INTRODUCTION

Following World War II American business and industry enjoyed continued and significant growth. As Clemmer (1992) pointed out:

> With an abundance of natural resources, plenty of working capital, a strong, well-educated work force, and the Disposable Society driving consumer demand, North American managers were on top of the world. And many came to believe it was and would always be so--a natural birthright (p. 9).

During that period, international competition was considered virtually non-existent. The ever-increasing demands for goods and services caused American management to focus on productivity rather than quality.

At the same time America was enjoying an unprecedented economic boom, Japan was learning to deal with a sagging economy, lack of natural resources and an international reputation for low-quality products. In 1950, Deming, an American statistician, gave a series of lectures in Japan on statistical quality control and its application to the manufacturing process. The methods taught by Deming were embraced throughout Japan and were the seeds which enabled Japan to become America's greatest economic challenger.

The reality of that challenge was that international competitors delivered better quality products at a lower cost to consumers. That reality, coupled with the severe recession of the early 1980's, caused corporate America to rethink its approach.

As American industry investigated the causes of the new-found success of their competitors, they discovered that the Japanese had embraced an approach to management which combined improved productivity, improved quality, cost reduction and customer focus (Clemmer, 1992). Deming (1982) put it this way, "We are in a new economic age, created by Japan. Deadly diseases afflict the style of American management" (p.26). Deming (1982) also stated that,

> "For the first time in its history, the United States faces the job of managing economic growth with an increasing scarcity of capital, raw materials, energy sources, managerial skill, and market opportunities. . . It is not going to be easy for the United States to learn Japan's secret" (p. 148).

American business and industry eventually came to realize that if they were to survive in the new world economy, they would have to take a similar approach. That new approach became known as total quality management.

In the 1980s, many government agencies were beginning to discover that they were having crises of their own. According to Carr and Littman (1990), government agencies had four areas of concern: (1) better service to citizens, (2) tight budgets, (3) getting and keeping good employees, and (4) competition.

A 1988 survey conducted for the American Society for Quality Control by the Gallup Organization, Inc. revealed that only one in eleven Americans thought

government did a very satisfactory job in producing quality services. The same survey revealed that less than half of Americans felt that government was operating competently (Carr & Littman, 1990).

Tight budgets and deficits resulted in reductions in force, elimination of programs, across-the-board budget cuts and hiring freezes--when what was really needed was increased productivity and elimination of waste. Clearly, the way tight budgets and deficits are handled today does nothing to improve services to citizens and can only add to the already negative perceptions citizens have toward government.

With the pool of qualified workers shrinking more and more each year, getting and keeping good employees is tough for any employer. Government agencies compete with the private sector for workers. Employees in the 1990s expect a workplace in which they have a voice and believe that they make a unique contribution. As a general rule, government agencies do not provide such an atmosphere (Carr & Littman, 1990).

Government agencies are often thought of as monopolies. More and more, however, government services are being considered for contracting out to private industry. In addition, government agencies compete internally for funding, or appropriations. Competition--and survival--are very real for government agencies

Slowly, but surely, management in government agencies is beginning to realize that they cannot go on conducting business as usual if they are to survive. As a result, they have begun following the lead of the private sector and are

attempting to implement total quality management.

A number of articles and publications have been written about the application of total quality management concepts in the public sector; however, a structure for facilitating the implementation of those concepts into public sector organizations is another story. While many successful implementation processes have been documented for the private sector, little had been written about the successful implementation of total quality management in the public sector at the time this study was conducted.

Statement of the Problem

The problem for this study was that the critical components for a successful implementation of total quality management in government agencies were unknown. Therefore, a government agency wishing to implement total quality management had no model or process to follow.

Purpose of the Study

The purpose of the study was to determine the critical components that contribute to the successful implementation of a total quality management initiative in government agencies.

Objectives of the Study

The objectives of the study were:

1. To identify the components which have proven successful in the implementation of total quality management in government agencies.
2. To rank the most critical components of total quality management implementations in government agencies.

CHAPTER II

REVIEW OF LITERATURE

Introduction

In recent years, a great deal has been said and written about total quality management. The greatest preponderance of information has been related to the private sector. That should be expected since total quality management has been embraced by much of the private sector as the way to do business in today's competitive world.

Early information on total quality management in the private sector dealt predominantly with the definition of quality, the principles related to total quality management, and the tools used to achieve quality. More recently, information has also focused on processes or architecture for implementing total quality management.

As the public sector has begun following the lead of the private sector, some literature is beginning to emerge which addresses total quality management in that arena also. Most of what has been written deals with quality definitions, concepts and tools as they relate to government. Little is known, however, about

implementation architecture or components that have proven successful in the public sector.

The purpose of this study was to determine the critical components that contribute to the successful implementation of a total quality management initiative in government agencies.

What is Total Quality Management?

Total quality management is a management system for adding value to products and services by: (1) eliminating waste, (2) reducing rework, (3) improving work processes, (4) investing in people, products, and services, and (5) staying close to customers (Beggs, 1992). Schultz and Vollum (1992) further describe total quality management as:

> . . .fully utilizing the brainpower of each and every employee. It is the systematic elimination of waste and rework created by imperfect processes. It is an appreciation of the variation inherent in processes. It is an understanding that all of an organization's efforts are part of a system, and that you cannot change one part of the system without affecting the other parts (p. ix).

Total quality management differs from traditional management in a number of ways:

Quality means meeting the customer's requirements: Time was when American industry determined what a quality product or service would look like. Total quality management takes the approach that the consumer should determine what quality is (Deming, 1986). Put another way, quality is determined by what the customer wants (Clemmer, 1992).

Focusing on the process, not the product: American industry has traditionally focused on improving the product with little regard for the process. Total quality management recognizes that understanding how things get done (the process) and improving on same is the only way results (products and services) can be improved (Schultz & Vollum, 1992).

Focusing on elimination of rework and waste rather than allowing for them: The traditional approach to management has been to accept the fact that errors and mistakes happen. Most manufacturers, in the past, have built into the cost of a product a certain amount to allow for scrap produced during the manufacturing process. Total quality management takes the approach of doing things right the first time. According to Crosby (1979), "The purpose of it [quality management] is to set up a system and a management discipline that prevents defects from happening in the company's performance cycle" (p. 24). The goal is to design and improve processes so that scrap and rework are eliminated.

Management's job is to remove obstacles and provide support, not monitor or supervise: Xerox Corporation, in its script (date unknown) for the slide presentation which tells about its journey into total quality management, tells about how management's job changed:

> We had to refocus management from an internal orientation to the satisfaction of external customer requirements. From accommodating traditional practices that produced known defects to a dedication to driving out all defects. . . .plans for management behavior modification shifted the focus from the individual to team problem solving, as an open management style that coaches, councels [sic] and facilitates, encouraging innovation and risk taking, rather than a remote style that emphasizes controlling (p. 28).

Working cross-functionally rather than in functional stovepipes:

Traditional management is strongly influenced by Taylor, an engineer, who greatly improved factory productivity early in this century. According to Juran (1992):

> A major premise of the Taylor system was that the workers and supervisors of those days lacked the education needed to plan their own work. That premise is no longer valid as to most workers. . . We are generally agreed that the system should be replaced. . . (p. B-7).

Taylor's system led to organizations which operated functionally rather than cross-functionally. Deming's (1982) ninth point for management - break down barriers between staff areas - takes the opposite approach. He pointed out that what people do in one part of the organization effects those in other parts of the organization often resulting in scrap, rework and poor quality. If an organization is to eliminate scrap and rework, people all across the organization must be talking to one another and working cross-functionally.

Components of Implementation of Total Quality Management in the Private Sector

The change from traditional management practices to total quality management does not just happen, it must be made to happen (Griffiths, 1990). The change requires intentional efforts on the part of everyone in the organization--thus, the need for a formal implementation architecture. This section will discuss the components of implementation of total quality management generally found in the private sector. The literature revealed that the implementation components generally fell into one of nine broad areas.

Organization Focus Getting everyone focused on the organization's values, vision, mission and goals is critical. Clemmer (1992) suggests that senior management leadership starts with their "being able to answer these questions *in unison* (1) What business are we in (our strategic niche)? (2) What do we believe in (the values that will guide everyone's behavior)? (3) Where are we going (the vision of our *preferred* future)?" (p. 97). These elements lead to the development of a strategic plan for the organization, which, in turn, gives the quality initiative focus.

Upper Management Commitment to Quality - A Quality Policy According to Tunner (1990), implementing quality is impossible without the commitment and support of upper management. Tunner goes on to suggest that one way to demonstrate that commitment is by preparing a quality policy for the organization. Weintraub (1992), former Xerox quality executive, stated that,

> "Without genuine, hands-on commitment and support by senior management early in the development and implementation cycle, all attempts at quality improvement are doomed to failure. And that commitment must take the form of action, not rhetoric."

Persico (1992) wrote that organizations transforming to total quality management must hold certain fundamental beliefs. Among them is the belief that, "senior management must lead the transformation" and that ". . organization-wide transformation will not succeed unless top management is visibly supportive and commits time, energy, and resources to the effort" (p. xii).

Training The success of any total quality implementation is in direct proportion to the investment in skills development made by the company

(Clemmer, 1992). According to Griffiths (1990), "Part of the commitment to quality requires that *everyone* first be educated in the concepts and later in how to apply them" (p. 44). Training in interpersonal skills is also needed. In a survey conducted in 1989 by Zenger-Miller, results showed that 80 percent of the problems in a quality improvement initiative were related to frontline, interpersonal, management leadership, support, and involvement skills. (Clemmer & Yates, 1991). Team building is another area where training is needed, according to the report *Quality Training: What Top Companies Have Learned* ("Pioneers in Quality," June 1991). Zenger-Miller (1991) found that effective meeting leading skills are also important in a quality initiative. And, finally, at least some employees will need training in advanced statistical methods (Clemmer, 1992).

Communications Griffiths (1990) wrote, "The importance of communication to the process [of implementing total quality management] and to the organization cannot be overstated" (p. 103). He went on to say that it is the responsibility of everyone in the organization, and includes such things as: information sharing by management, newsletters, reporting and listening sessions by management, quality displays at various locations, team pictures, reinforcement of the quality mission and objectives, and informal networking among departments. Another key communication technique, which also serves to signal commitment, is to reserve a portion of every staff meeting to talk about quality (Clemmer, 1992). Having a total quality implementation plan is imperative, as is

communicating it to the rest of the organization. Hunt (1992) wrote that organizations should ". . .create a living plan. . ." for total quality management implementation. He then recommended that management make the plan available to all personnel to ". . .assure that your goals and approach are communicated throughout your company" (p. 209).

Rewards and Recognition "Some of the most difficult issues in total quality management concern the role of performance appraisals, financial rewards, employee recognition systems, promotion, and disciplinary policy," state Perisco and Loubert (1992, p. 136). Yet, recognition and rewards are key to the success of an implementation (Griffiths, 1990). Recognition and publicity serve to motivate and encourage teams and individuals in their efforts (Lucchesi, 1992). Another purpose recognition can serve is to bring forth role models others can emulate (Griffiths, 1990). Clemmer (1992) suggested that companies "celebrate, honor, cheer, applaud, reinforce, laud, praise, extol and otherwise reinforce all service/quality achievements" (p. 109) as a way to make sure people know that total quality management is not just another program, but the new way of doing business. Xerox Corporation makes it a practice to promote employees who model total quality management behavior, and, conversely, to not promote employees who do not model total quality management behavior (Weintraub, 1992). Linking quality behavior to pay is another way of reinforcing its importance. Griffiths (1990) made the point that "the intent to implement [quality] must be absolute, and there is nothing more absolute for the purpose of

conveying the intent than to tie pursuit and implementation to the paycheck" (p. 144).

Management Behavior Management behavior in a total quality organization is important, not only from the standpoint of what it signals, but also because it can make or break the implementation effort. Griffiths (1990) wrote,

> 'Walk the talk' is perhaps best translated as 'practice what you preach.' . . .If executive management can personally demonstrate the quality mission and methodology, our transformation will be instantly seen. If, however, we do not lead by example. . .we will create obstacles of immense proportion (p. 115).

Total quality management requires the involvement of everyone in the organization, including frontline workers. Managers at all levels, therefore, must learn ways to involve all employees. This approach has emerged into a management style known as participative management (Clemmer, 1992).

Going hand-in-hand with participative management is another critical aspect of management behavior, nurturing and developing others, sometimes referred to as coaching (Clemmer, 1992). So important is coaching that Clemmer claimed, "If the majority of your organization's managers aren't good to outstanding coaches, your entire improvement effort is doomed" (p.181). To encourage managers to practice those new behaviors, a number of organizations, including Xerox and Citizens Coke and Gas, provide formal opportunities for peers and subordinates to give feedback to managers in that area (Griffiths, 1990; Weintraub, 1992).

Infrastructure Most total quality implementation efforts use a structure

which consists of a steering committee, a quality coordinator, quality mentors or advisors and improvement teams (Juran, 1992). The steering committee, made up of upper management and other key personnel, oversees the implementation plan and process (Tunner, 1990). The quality coordinator is not the leader of the quality effort, but a technical quality expert who helps guide and facilitate the steering committee in their efforts to lead the organization into total quality management (Ames, 1992; Clemmer, 1992). Quality mentors or advisors receive advanced training in quality tools and statistical methods and then serve as process guides for improvement teams (Sholtes, 1988). Improvement teams are the heart and soul of total quality management. They can be made up of people within a certain department or unit or they can be cross-functional. They can be permanent work teams or ad hoc groups. They can be working to improve macro or micro processes (Clemmer, 1992). Their goal is always the same--to "address the improvements of specific processes related to increasing customer satisfaction" (Shultz & Vollum, 1992, p. xxiii).

Improvement Activities Improvement activities are where the action is in total quality management. All of the rest of the implementation components exist to support improvement activities (Clemmer, 1992). Measures and standards are a key part of improvement activities. According to Sholtes (1988):

> The core of quality improvement methods is summed up in two words: scientific approach. Though this may sound complicated, a scientific approach is really just a systematic way for individuals and teams to learn about processes. It means agreeing to make decisions based on data rather than hunches, to look for root causes of problems rather than react to superficial symptoms, to seek

permanent solutions rather than rely on quick fixes (p. 2-8).

Since decisions are made based on fact, or data, management must make sure that employees have access to all of the information they need to be effective in their improvement activities (Brown & Svenson, 1990). Improvement activities become a way of life in the organization. Capshaw and Grettenberger (circa 1991), both of Cadillac Motor Car Company, were representative of most total quality companies when they said, "In today's global marketplace, we must constantly review our processes and products, and commit ourselves to their continuous improvement." (p. 8).

Adequate Resources Committing to total quality management requires a significant investment of both human and financial resources. This investment should not be taken lightly, but should be considered in the same category as a major capital expenditure (Weintraub, 1992).

Total Quality Management in Government

Former President George Bush (1992) said, ". . .we need in America to make quality a central part of all we do. The companies that do it right the first time secure their customers--throughout the world as well as in this country. We need similarly to reform the Government. . ." (p. 8). Many government agencies are trying to do just that, but the journey is difficult. Kline (1992), in his study of total quality management in local government, noted, "There is no public-sector roadmap for making the transformation from old ways to the TQ ways and "how"

things are done is a difficult topic to place on an agenda dominated by critical budget questions and the demand for results." (p. 10) According to Smith (1993), even when public sector entities adopt some of the total quality management concepts and tools, their efforts often founder because they ". . .do not incorporate the planning necessary to manage the implementation effort. . ." (p. 45)

Two fundamental differences between the private and public sectors are the constantly changing leadership in government agencies and the inability of government to generate more revenue. These differences could influence the total quality management implementation process.

Constantly Changing Leadership Because the leadership of government agencies is usually a function of who gets elected, there is constant turnover in that leadership (Swiss, 1992). Elections of new officials means appointments of new agency heads. Those appointed must usually be confirmed by a governing body. All of which can take a significant amount of time, leaving a gap in the leadership slot.

Once new leaders are in place, government entities are faced with the possibility that the new leader either does not understand the concept of total quality management or does not support it. If the total quality initiative is fairly young, there is a good chance it won't survive the arrival of a leader who is not supportive of the effort.

The private sector, on the other hand, has the advantage of a more stable leadership. Since total quality management requires commitment and leadership

from upper management, stability of leadership could be a significant issue.

Inability to Generate More Revenue While cost savings are a welcome possibility for government agencies implementing total quality management, the opportunity to generate more revenue by improving quality isn't. Kline (1992) quoted the city manager of Fort Collins, Colorado as saying:

> . . .improvements that may increase customer satisfaction, may end up costing us [public sector] more. The private sector like the public, can realize cost savings through productivity improvements. Unlike the public sector however, the private sector also can gain from wisely spending money to achieve higher customer satisfaction, higher sales, greater profits and market share. For us, spending more on customer satisfaction may mean happier customers, but not necessarily more revenue (p. 10).

Even with differences noted, many government agencies believe there is a place for total quality management in the public sector. Crook (1992), quality officer for the City of Austin, wrote,

> Budget deficits are forcing governments to cut and postpone needed programs, at a time when the country can ill afford their loss. Is there an alternative to the axe? Yes--improve how government work is done, to get real savings and better services. Right now. . public organizations are. . .introducing total quality management to:
>
> - save money, while enhancing existing services;
> - win praise from citizens impressed with service quality; and
> - add new services citizens want and need (p. S-1).

If the critical components for implementing successful total quality management initiatives in government agencies were known, perhaps more implementation efforts would be attempted.

Research Methodology

According to Key (1992), questionnaires, or surveys, are a good way to elicit the experiences of others. Oppenheim (1966) noted that a survey is a way to collect data for the purpose of description. In addition, Key noted that, because respondents receive the same set of questions phrased in the same way, surveys produce data that is more easily compared. For those reasons, it was decided that a survey of quality professionals in government agencies would be conducted in order to determine the critical components that contribute to the successful implementation of total quality management in government agencies, which was the purpose of this study.

Summary

The private sector has embraced total quality management as a way of doing business in today's competitive world. The review of literature revealed critical components for implementation of total quality management in the private sector. A company beginning a total quality initiative at this juncture would have more than adequate information available to know what components are necessary for a successful implementation. As government agencies begin to embrace the concepts of total quality management, the way has not been so clear. The literature revealed very few case studies or research projects related to the components of successful implementation of total quality management in the public sector. The purpose of this study was to determine the implementation

components of total quality management which have proven successful in government agencies.

CHAPTER III

PROCEDURES

Introduction

The purpose of this study was to determine the critical components that contribute to the successful implementation of a total quality management initiative in government agencies. In order to accomplish this purpose, two objectives were set:

1. To identify the components which have proven successful in implementation of total quality management in government agencies, and
2. To rank the most critical components of total quality management implementations in government agencies.

Population and Sample

Because there were so few governmental agencies involved in total quality management and little information on how to identify the population from which a probability sampling could be drawn, this study used a purposive or judgmental sample. According to Miller (1991), "When practical considerations preclude the

use of probability sampling, researchers may seek a representative sample by other means." (p. 61). Purposive sampling allows the researcher to select a sample that will yield the most comprehensive understanding of the subject (Babbie, 1986). Kerlinger (1973) said that purposive sampling, ". . .is characterized by the use of judgment and a deliberate effort to obtain representative samples. . ." (p. 129).

The basis of the study was a survey of quality specialists in one city and seven state agencies within the United States, known, by the researcher, to have been involved in implementing total quality management for one year or longer. Agencies surveyed included:

- Texas Water Commission/Texas Air Control Board
- Florida Department of Revenue
- Arkansas Department of Finance & Administration
- South Carolina Division of Human Resource Management
- Minnesota Department of Employee Relations
- The City of Fort Collins, Colorado
- Maryland Department of Education
- Oklahoma Department of Commerce

All agencies invited to participate completed the survey.

Methodology

A survey, based on the findings of the review of literature, was developed.

The survey contained a listing of major components which have proven successful in the implementation of total quality management in the private sector. The major components were a consolidation of the original nine broad categories discussed in the Review of Literature. The survey also contained a listing of items within each major component which have proven successful in the implementation of total quality management in the private sector. The intent was to see if components which have proven successful in the implementation of total quality management in the private sector have also contributed to the successful implementation of total quality management in the public sector.

Based on their experience, respondents were asked to rank each major component, with "1" being the most critical component which contributed positively to their agency's total quality management implementation, "2" being the second most critical component, and so on. If a particular component was a part of the implementation effort, but one for which no activity had yet taken place, respondents were instructed to leave the space next to that component blank. If a particular component was not a part of the implementation effort, respondents were instructed to write "N/A" in the space next to the component.

Again, based on their experience, respondents were then asked to rank items within each of the major components, with "1" being the most critical item within that major component which contributed positively to the agency's total quality management implementation, "2" being the next most critical item, and so on. Each major component was ranked separately. If a particular item was a part

of the implementation effort, but one for which no activity had yet taken place, respondents were instructed to leave the space next to that item blank. If a particular item was not a part of the implementation effort, respondents were instructed to write "N/A" in the space next to the item.

In addition to the ranking of components, respondents were asked three general questions. The first asked for the title of the person responding to the survey. The second asked how long the organizations had been involved in a formal total quality management implementation. The third asked for the approximate percentage of employees who had received training in total quality management concepts and tools.

To assure that the language of the survey was appropriate and familiar to those involved in total quality implementation efforts, the survey was reviewed by a quality specialist at the Oklahoma Department of Vocational and Technical Education. Suggestions made by the quality specialist were incorporated into the survey.

To assure that the survey was easy to understand and use, the research coordinator at the Oklahoma Department of Vocational and Technical Education was asked to review the letter which accompanied the survey and the survey. Suggestions made by the research coordinator were incorporated into the survey.

The revised survey was reviewed by four members of the American Society for Quality Control. Each of the reviewers determined that the survey used appropriate language and that the instructions in the survey were clear.

Finally, a quality specialist in manufacturing was asked to complete the survey and give feedback based on his experience in quality management. As a result of his feedback, some wording of items within major components was adjusted.

The letter accompanying the survey and the survey form were approved by the Oklahoma State University Institutional Review Board. A copy of the approval can be found in Appendix A.

Potential respondents were then called and asked if they would be willing to participate in the study. All potential respondents asked to participate agreed to participate. At the same time respondents were asked to participate, appointments were made for the researcher to call and collect responses by phone during the following week. With those arrangements made, the surveys were mailed.

During the following week, respondents were called at the pre-arranged times and responses were gathered over the phone. Answers were transcribed onto a survey exactly like the one the respondents had in front of them. All but two respondents had filled out the survey ahead of time. The two who had not, composed their responses over the phone. To insure confidentiality, no attempt was made to keep track of responses by particular respondents. Respondents did not know who the other respondents were and, therefore, responded independently. A copy of the survey and the cover letter can be found in Appendix B.

Data Analysis

Data were summarized with descriptive statistics. Frequency counts and means were the primary statistics used. Kendall's W was used to determine the level of agreement among respondents on rankings of the seven major components. A significance level of .05 was established. Data charts were used to display the data and information.

CHAPTER IV

FINDINGS

Introduction

The purpose of this study was to determine the critical components that contribute to the successful implementation of a total quality management initiative in government agencies. The objectives were:

1. To identify the components which have proven successful in the implementation of total quality management in government agencies.
2. To rank the most critical components of total quality management implementations in government agencies.

In order to meet the objectives of the study, a survey of eight total quality management professionals in eight state and city agencies across the United States was conducted. This chapter will present the findings of the survey.

Demographic Information

Respondents were asked their title, how long the organization had been involved in a formal TQM implementation, and the approximate percentage of

employees who had received some training in quality skills and/or concepts. Table 1, on page 28, summarizes the demographic information.

Data

Respondents were asked to rank the following seven major components which have proven successful in the implementation of total quality management in the private sector:

Organization Focus/Strategic Plan

Management Behavior/Commitment

Infrastructure

Training

Communications

Rewards and Recognition

Improvement Activities

Based on their experience, respondents ranked the components with "1" being the most critical component which contributed positively the their total quality implementation efforts, "2" being the next most critical component, and so on. If a component was a part of their total quality initiative, but one for which no activity had yet taken place, no ranking was given. If a component was not a part of their total quality initiative the space was marked "N/A." Table 2, on page 29, reports the rankings by each respondent and the mean average of rankings for each major component.

TABLE 1

SUMMARY OF DEMOGRAPHIC INFORMATION

Respondent #	Respondent's Title	Number of Years Organization Involved in Formal TQM Implementation	Approximate Percentage of Employees Who have Received some Training in Quality Skills and/or Concepts
1	Coordinator for Total Quality Services	4 years	100%
2	Quality Coordinator	3 years	80%
3	Interim Quality Office Manager	2 years	65%
4	Deputy Commissioner	2 ½ years	40%
5	Manager, Productivity and Quality Services Section	5 years	60%
6	Assistant to City Manager for Quality Improvement	5 years	60%
7	Deputy Director	2 years	99%
8	State Quality Coordinator	3 ½ years	15%

TABLE 2

RANKINGS OF MAJOR COMPONENTS AND AVERAGE MEANS OF RANKINGS

Item	Respondents								Rj/K=X
	1	2	3	4	5	6	7	8	
Management Behavior/Commitment	1	1	1	2	1	4	1	3	14/8=1.75
Organization Focus/Strategic Plan	3	2	2	1	2	2		1	13/7=1.857
Training	2	6	3	4	3	1	2	4	25/8=3.125
Infrastructure	4	3	6	6	4	6	5	2	36/8=4.5
Communications	6	4	5	3	5	5	4	7	39/8=4.875
Improvement Activities	5	7	4	5	6	3	3	6	39/8=4.875
Rewards and Recognition	7	5	6		7	7		5	37/6=6.167

Rj = Sum of rank assigned to each major component
K = Number of respondents
x = mean or average ranking

When Kendall's Coefficient of Concordance, or Kendall's W, was applied to the rankings, it was found that there was a high degree of agreement among those surveyed on the ranking of the major components. When W, which is a function of the degree of variance among the sums of ranks, was applied to the formula which tests the significance of rankings, and is then compared to the chi-square table at the .05 level with 7 degrees of freedom, it was found that the level of agreement was highly significant. The calculations used to apply Kendall's W and the test of significance of rankings are shown in Table 3, on page 30.

TABLE 3

DATA AND CALCULATIONS USED
TO TEST THE SIGNIFICANCE OF RANKINGS

Major Component	Rj	D	D^2
Organization Focus/Strategic Plan	13	16	256
Management Behavior/Commitment	14	15	225
Infrastructure	36	-7	49
Training	25	4	16
Communications	39	-10	100
Rewards and Recognition	37	-8	64
Improvement Activities	39	-10	100
TOTALS	203		810
Ideal Mean = Rj ÷ N = 203 ÷ 7 = 29			
$W = 12D^2 \div K^2[N(N^2 - 1)] = 12(810) \div 8^2[7(7^2-1)] = 9720 \div 21504 = .4520$			
Test of significance of Rankings (S) = K(N - 1)W = 8(6)(.452) = 21.696			
Rj - Sum of the ranks for each major component D - Difference between the ideal mean and Rj N - Number of items being ranked W - Function of degree of variance among sums of ranks K - Number of respondents S - Test of significance of the rankings			

Chi Square @ .05, 7 df = 14.07
Achieved value = 21.696

Using the mean rankings of the respondents, it was determined that the major components were ranked, with "1" being the most critical major component, "2" being the next most critical component, and so on, as shown in Table 4, on page 31.

TABLE 4

MAJOR COMPONENTS WHICH CONTRIBUTE TO THE IMPLEMENTATION OF TOTAL QUALITY MANAGEMENT IN RANK ORDER

Rank	Major Component	Mean
1.	Management Behavior/Commitment	(1.750)
2.	Organization Focus/Strategic Plan	(1.857)
3.	Training	(3.125)
4.	Infrastructure	(4.500)
5.	Communications	(4.875)
	and	
5.	Improvement Activities	(4.875)
7.	Rewards and Recognition	(6.167)

Two major components - Communications and Improvement Activities - tied at position number five.

After respondents ranked the major components, they were asked, based on their experience, to rank several items within each major component, with "1" being the most critical item which contributed positively to their total quality initiative, "2" being the next most critical item, and so on. Again they were instructed to make no ranking on items which were a part of their total quality initiative, but for which they had had no activity. Items which were not a part of their total quality initiative were to be marked "N/A."

No attempt was made to find the degree of agreement of the rankings of the items within major components. The mean of the sums of the rankings were calculated to determine the general consensus of the respondents.

Management Behavior/Commitment was ranked as the most critical major

component which contributes to the successful implementation of total quality management in a government agency. The items within Management Behavior/Commitment were ranked as follows:

1. Adequate financial and human resources are dedicated to the quality effort.
2. Participative management is a way of life in the organization.
3. Managers use quality concepts and tools to get their work done.

and

3. Managers regularly use coaching skills in working with employees.
5. Managers encourage subordinates to use quality concepts and tools to get work done.
6. Managers receive subordinate and peer reviews relating to their use and practice of total quality management concepts and tools.

Two items in the management behavior/commitment component tied for the third position. Table 5, on page 33, reveals how respondents ranked each item and the mean for the sum of the rankings for each item.

Organization Focus/Strategic Plan was ranked as the second most critical major component which contributes to the successful implementation of total quality management in government agencies. The items within Organization Focus/Strategic Plan were ranked as follows:

1. The organization has established values, vision, and mission.

TABLE 5

RANKINGS OF ITEMS WITHIN MANAGEMENT BEHAVIOR/COMMITMENT COMPONENT AND AVERAGE MEANS OF RANKINGS

Item	Respondents								Rj/K=X
	1	2	3	4	5	6	7	8	
Adequate financial and human resources are dedicated to the quality effort.	2	4	5		1	1	NA	1	14/6=2.333
Participative management is a way of life in the organization.	1	5	1	2	2		5	2	18/7=2.571
Managers use quality concepts and tools to get their work done.	4	1	6	3	3		2	4	23/7=3.286
Managers regularly use coaching skills in working with employees.	3	3	4	1	5		4	3	23/7=3.286
Managers encourage subordinates to use quality concepts and tools to get work done.	5	2	3	4	4		3	5	26/7=3.714
Managers receive subordinate and peer reviews relating to their use and practice of total quality management concepts and tools.	6	6	2		6	NA	1	6	27/6=4.5
Rj = Sum of rank assigned to each major component; K = Number of respondents; x = mean or average ranking									

2. The organization's strategic plan and quality initiative are linked together.

3. The organization has a "working" strategic plan.

Table 6, on page 35, reveals how respondents ranked each item and the mean average for each item within the major component of Organization Focus/Strategic Plan.

Training was ranked as the third most critical major component which contributes to the successful implementation of total quality management in government agencies. The items within Training were ranked as follows:

1. TQM concepts and tools
2. Team skills
3. Interpersonal skills
4. Coaching skills for managers
5. Facilitating meetings
6. Advanced quality tools

Table 7, on page 36, reports how respondents ranked each item and the mean average for each item within the major component of Training.

The fourth most critical major component which contributes to the successful implementation of total quality management in a government agency is Infrastructure. The items within Infrastructure were ranked as follows:

1. A quality coordinator, reporting to the CEO, "orchestrates" the quality efforts.

TABLE 6

RANKINGS OF ITEMS WITHIN ORGANIZATION
FOCUS/STRATEGIC PLAN COMPONENT AND
AVERAGE MEANS OF RANKINGS

Item	Respondents								Rj/K=X
	1	2	3	4	5	6	7	8	
The organization has established values, vision, and mission.	1	1	1	1	1	2		1	8/7=1.143
The organization's strategic plan and quality initiative are linked together.	3	2	2	3	2			2	14/6=2.333
The organization has a "working" strategic plan.	2	3	3	2	3	1		3	17/7=2.429
Rj = Sum of rank assigned to each major component; K = Number of respondents; x = mean or average ranking									

TABLE 7

RANKINGS OF ITEMS WITHIN TRAINING COMPONENT AND AVERAGE MEANS OF RANKINGS

Item	Respondents								Rj/K=X
	1	2	3	4	5	6	7	8	
TQM concepts and tools	1	3	1	2	1	1	1	5	15/8=1.875
Team skills	3	2	2	3	3	2	3	3	21/8=2.625
Interpersonal skills	4	1	3	4	2	4	2	4	24/8=3.000
Coaching skills for managers	2	5	6	1	4	3	4	1	26/8=3.250
Facilitating meetings	5	4	4		5	5	5	2	30/7=4.286
Advanced quality tools		6	5		6	6	6		29/5=5.800
Rj = Sum of rank assigned to each major component; K = Number of respondents; x = mean or average ranking									

2. A steering committee, which includes top management, directs the implementation of total quality management in the organization.
3. Quality mentors or advisors (employees who receive advanced training in quality tools and serve as process guides for improvement teams) are identified and used.
4. Quality improvement teams, both functional and cross-functional, operate continuously.

Table 8, on page 38, includes the rankings of respondents for each item and the mean average for each item within the major component of Infrastructure.

The major components of Communications and Improvement Activities tied as the fifth most critical major component which contributes to the successful implementation of total quality management in a government agency. Respondents ranked the items within the major component of Communications as follows:

1. Members of top management are champions for quality.
2. A TQM implementation plan is written and followed.
3. A common quality language is used throughout the organization.
4. Customer surveys are conducted on an ongoing basis.
5. Quality improvement progress charts and reports are posted and/or distributed.
6. Quality is addressed in all staff meetings.
7. A quality newsletter is used.

TABLE 8

RANKINGS OF ITEMS WITHIN INFRASTRUCTURE COMPONENT AND AVERAGE MEANS OF RANKINGS

Item	Respondents								Rj/K=X
	1	2	3	4	5	6	7	8	
A quality coordinator, reporting to the CEO, "orchestrates" the quality efforts.	2	2	1		2	3	1	2	13/7=1.857
A steering committee, which includes top management, directs the implementation of total quality management in the organization.	1	1	4	2	1	1	4	1	15/8=1.875
Quality mentors or advisors (employees who receive advanced training in quality tools and serve as process guides for improvement teams) are identified and used.	4	3	2		3	2	3	3	20/7=2.857
Quality improvement teams, both functional and cross-functional, operate continuously.	3	4	3	1	4	4	2	4	25/8=3.125
Rj = Sum of rank assigned to each major component; K = Number of respondents; x = mean or average ranking									

Table 9, on page 40, reveals how respondents ranked each item and the mean average for each item within the major component of Communications.

Respondents ranked the items within the major component of Improvement Activities as follows:

1. Measures and standards for at least some processes are established and monitored.
2. Quality improvement teams are used throughout the organization to solve problems and improve products, services, and processes.

and

2. Employees can and do use basic quality tools in their daily work.
4. Improvements are implemented on an ongoing basis.
5. Employees have ready access to data needed to establish baseline measures.

Two items tied for the second position within this major component. Table 10, on page 41, reports how respondents ranked each item and the mean average for each item within the major component of Improvement Activities.

Ranked last in the list of major components which contribute to the successful implementation of total quality management in a government agency is Rewards and Recognition. Respondents ranked items within this major component as follows:

1. Annual celebrations for quality recognition are held.
2. Peer recognition systems exist and are used.

TABLE 9

RANKINGS OF ITEMS WITHIN COMMUNICATIONS COMPONENT AND AVERAGE MEANS OF RANKINGS

Item	Respondents								Rj/K=X
	1	2	3	4	5	6	7	8	
Members of top management are champions for quality.	1	2	6	1	2	1	3	2	18/8=2.250
A TQM implementation plan is written and followed.	3	5	2		1	5	1	1	18/7=2.571
A common quality language is used throughout the organization.	2	7	1	3		2	2	3	20/7=2.857
Customer surveys are conducted on an ongoing basis.	4	3	4	2	3	3	4	5	28/8=3.500
Quality improvement progress charts and reports are posted and/or distributed.	5	1	3		6	4	NA	6	25/6=4.166
Quality is addressed in all staff meetings.	7	4	7		4		6	4	32/6=5.333
A quality newsletter is used.	6	6	5		5	NA	5	7	34/6=5.666
Rj = Sum of rank assigned to each major component; K = Number of respondents; x = mean or average ranking									

TABLE 10

RANKINGS OF ITEMS WITHIN IMPROVEMENT ACTIVITIES COMPONENT AND AVERAGE MEANS OF RANKINGS

Item	Respondents								Rj/K=X
	1	2	3	4	5	6	7	8	
Measures and standards for at least some processes are established and monitored.	3	1	3	3	3		4	1	18/7=2.571
Quality improvement teams are used throughout the organization to solve problems and improve products, services and processes.	1	5	4	1	5	1	1	4	22/8=2.750
Employees can and do use basic quality tools in their daily work.	5	3	1	5	1	2	2	3	22/8=2.750
Improvements are implemented on an ongoing basis.	2	4	2	2	2	3	3	53	23/8=2.875
Employees have ready access to data needed to establish baseline measures.	4	2	5	4	4		5	2	26/7=3.714
Rj = Sum of rank assigned to each major component; K = Number of respondents; x = mean or average ranking									

and

2. The use of quality concepts and tools is reflected in the performance evaluation of each employee.
4. A fundamental consideration for promotions is the commitment to total quality management by the person being considered for promotion as evidenced by previous actions and results.
5. Pay and pay increases are connected to the use of quality concepts and tools.

Two items tied for the second position in the rankings for Rewards and Recognition. Table 11, on page 43, reveals how respondents ranked each item and the mean average for each item within the major component of Rewards and Recognition.

Summary

The analysis of data from surveying eight quality professionals from city and state government entities indicate that there is agreement on what implementation components contribute to the successful implementation of total quality management initiatives in government agencies. The data also indicate that there is agreement on the ranking of those components which have been identified as contributing to the successful implementation of total quality management in government agencies.

TABLE 11

RANKINGS OF ITEMS WITHIN REWARDS AND RECOGNITION COMPONENT AND AVERAGE MEANS OF RANKINGS

ITEM	RESPONDENTS								RJ/K=X
	1	2	3	4	5	6	7	8	
Annual celebrations for quality recognition are held.	2	4	1					2	9/4=2.250
Peer recognition systems exist and are used.	1	5	3		2			1	12/5=2.400
The use of quality concepts and tools is reflected in the performance evaluation of each employee.	3	3	2		1	NA		3	12/5=2.4
A fundamental consideration for promotions is the commitment to total quality management by the person being considered for promotion as evidenced by previous actions and results.	NA	1	4		3			4	12/4=3.000
Pay and pay increases are connected to the use of quality concepts and tools.	NA	2	5					5	12/3=4.000
Rj = Sum of rank assigned to each major component; K = Number of respondents; x = mean or average ranking									

CHAPTER V

SUMMARY, CONCLUSIONS, RECOMMENDATIONS

Summary

Over the last ten-twelve years, much of the private sector has recognized total quality management as critical to their survival and has embraced it as a way of doing business. As a result, much has been discovered and written about the components which contribute to the successful implementation of total quality management in the private sector.

Following the lead of the private sector, public sector organizations are recognizing the need to apply the tenants of total quality management. Unfortunately little has been written about the components which contribute to the successful implementation of total quality management in the public sector.

The purpose of this study was to determine the critical components that contribute to the successful implementation of a total quality initiative in government agencies. A review of the literature identified the components which have proven successful for implementing total quality management in the private sector. A survey, based on the findings of the review of literature, was developed and administered to quality professionals in eight government agencies in an

effort to:

1. Identify the components which have proven successful in the implementation of total quality management in government agencies.
2. Rank the most critical components of total quality management implementations in government agencies.

The findings of the study indicated that there was a high degree of agreement in what the critical components for implementing total quality management in government agencies are and in how they are ranked. The components, in rank order, are:

1. Management Behavior/Commitment
2. Organization Focus/Strategic Plan
3. Training
4. Infrastructure
5. Communications

and

5. Improvement Activities
7. Rewards and Recognition.

Conclusions

As a result of the study, the following conclusions are drawn:

1. Since management behavior/commitment is the most critical

component leading to the successful implementation of total quality management in the public sector, many government agencies may be challenged in their implementation efforts. As a general rule, government agencies experience more turnover in top management positions, as top officials are replaced according to who got elected. If newly elected or appointed managers do not have experience or training in total quality management, they may not be able to support an implementation effort.

2. The two most critical components - Management Behavior/Commitment and Organization focus/Strategic Plan - are both cultural issues. Therefore, a government agency starting on the quality journey should start by looking at the organization's culture.

3. The strong agreement on the ranking of the components suggest a sequence for implementation. Without the support and commitment of management, the resources necessary to accomplish the other components may not be allocated. Without an organization focus the efforts required by the balance of the major components could be off-target. Training gives the people in the organization the tools needed to begin improvement activities and understanding quality communications. An infrastructure is needed to keep efforts going. Communications provides feedback and networking mechanisms so that the people in the organization know how their doing. Improvement activities are a natural outgrowth of the previous components. Rewards and recognition are a way to motivate people to keep the initiative going.

Discussion

As one of three quality coordinators for a state agency, I am involved in the implementation of a total quality initiative in the public sector. Our implementation efforts are a little over a year old. Following models from the private sector, the implementation components in our plan closely mirror those surveyed for in this study. It is gratifying to discover, based on the findings of this study, that we appear to be on the right track in our efforts.

Because of my personal interest in the topic, after respondents gave me their survey rankings, I asked each of them if, based on their experiences, I had left out any aspects of an implementation initiative. No one thought I had left out a major component. There were two suggestions for items within major components I think are worth noting.

One respondent suggested that within the major category of Management Behavior/Commitment the idea of management's driving out fear from the organization should have been included. The concept of driving out fear is one of Deming's fourteen points. Deming believes that when fear is removed from the workplace, employees are free to learn from their mistakes and are more willing and able to take calculated risks in order to better serve the customer.

Related to the concept of driving out fear, Deming does not believe in traditional performance reviews. He does believe in continuous feedback from supervisors and peers in order to improve performance. Three of the respondents told me that their organizations were influenced by Deming and, therefore, had

not taken much action in the major component of Rewards and Recognition. This could account, in part, for the low ranking of that major component.

I agree that driving out fear needs to be a critical part of any implementation effort. In a total quality initiative, it is imperative that all employees be willing and able to make decisions, admit mistakes and take calculated risks. However, as long as people are afraid of "getting in trouble" if an error is made, an organization will never be able to learn from mistakes.

A second suggestion was that the major component of Training should have included an option for just-in-time training. Two respondents said that they provide training in quality tools on a just-in-time basis. When improvement teams are formed, a process guide provides training in the tools that are needed to address the problem or issue.

Just-in-time training has the advantage of providing an immediate application of the tool to a real life application. A disadvantage to this approach is that team members don't come to an improvement team with a "tool box." They are dependent on the process guide to decide which tool will be used. This could limit the synergistic effect which can be gained when team members have at least a basic overview of the tools before joining an improvement team. My preference would be to use both approaches. All employees should receive at least an overview of the basic quality tools during an orientation to total quality. Once ongoing improvement activities are underway, however, employees would receive more indepth training in specific tools needed to accomplish the goals of

the improvement team.

One other comment from a respondent struck me as important to note. The suggestion was made that the concept of customer focus is more difficult for government agencies than for the private sector. What makes the concept more difficult for the public sector is the fact that not only does government *serve* customers, but in many cases government must also *regulate* customers. Sometimes regulatory issues and service issues seem to clash.

Recommendations

As a result of this study, the following recommendations are made:

1. Agencies implementing total quality management should put in place a strong emphasis on civil servant managers so that the integrity of the implementation continues even if top management changes.

2. Implementations of total quality management in government agencies should begin with a cultural transformation of management and a willingness on their part to demonstrate their commitment to total quality concepts on a daily basis.

3. Experimental research should be conducted to determine if the findings of this study would hold true in a proactive implementation based on the findings.

REFERENCES

Ames, L. M., (1992). The organization leader. In J. Persico, Jr. (Ed.), The TQM transformation: A model for organizational change (pp. 1-18). White Plains, NY: Quality Resources.

Babbie, E. (1986). The practice of social research (4th ed.). Belmont, CA: Wadsworth Publishing Co.

Beggs, B. (1992). Oklahoma Department of Vocational-Technical Education Management Retreat. Roman Nose State Park, OK.

Brown, M. G. & Svenson, R. (1990, September). What "doing" total quality management really means. Journal for Quality and Participation. pp. 32-38.

Bush, G. (1992). The importance of quality. Journal for Quality and Participation. 15(6), pp. 6-8.

Capshaw, B. & Grettenberger, J. O. (1990). Cadillac: The quality story. Detroit: Cadillac Motor Car Company.

Carr, D. K., & Littman, I. D. (1990). Excellence in government: Total quality management in the 1990s. Arlington, VA: Coopers & Lybrand.

Clemmer, J.(1992). Firing on all cylinders: The service/quality system for high-powered corporate performance. Homewood, IL: Business One Irwin.

Clemmer, J., & Yates, M. (1991). At the service/quality crossroads (an essay). San Jose, CA: Zenger-Miller, Inc.

Crook, B. (1991). BASICS: Blueprint for the way we work. Austin, TX: City of Austin.

Crosby, P. B. (1979). Quality is free: The art of making quality certain. New York: Times Mirror.

Deming, W. E. (1982). Out of the crisis. Cambridge, MA: Massachusetts Institute of Technology, Center for Advanced Engineering Study.

Griffiths, D. N. (1990). Implementing quality with a customer focus. Milwaukee: Quality Press.

Hunt, V. D. (1993). Quality in America: How to implement a competitive quality program. Homewood, IL: Business One Irwin.

Juran, J. M. (1988). Juran on planning for quality. New York: The Free Press.

Juran, J. M. (1992). World class quality--it's a lot of work. Wilton, CT: Juran Institute.

Kerlinger, F. N. (1973). Foundations of behavioral research (2nd ed.). New York: Holt, Rinehart and Winston, Inc.

Key, J. P. (1992). The questionnaire and interview as data-gathering tools for a research investigation. Stillwater, OK: Oklahoma State University.

Kline, J. J. (1992). Total quality management in local government. Government Finance Review, 8(4), pp. 7-11.

Lucchesi, L. A. (1992). The local steering committee. In J. Persico, Jr. (Ed.), The TQM transformation: A model for organizational change (pp. 31-46). White Plains, NY: Quality Resources.

Miller, D. C. (1991). Handbook of research design and social measurement (5th ed.). Newbury Park, CA: Sage Publications.

Oppenheim, A. N. (1966). Questionnaire design and additude measurement. New York: Basic Books, Inc.

Perisco, J., Jr., & Loubert, S. K. (1992). The consultant. In J. Persico, Jr. (Ed.), The TQM transformation: A model for organizational change (pp. 117-150). White Plains, NY: Quality Resources.

Pioneers in Quality. (1991, June). Training & Development, pp.11-12.

Scholtes, P. R. (1988). The team handbook: how to use teams to improve quality. Madison, WI: Joiner Associates, Inc.

Schultz, L. E. & Vollum,, J. S. (1992). Introduction: the transformation model. In J. Persico, Jr. (Ed.), The TQM transformation: A model for organizational change (pp. ix-xxv). White Plains, NY: Quality Resources.

Swiss, J. E. (1992). Adapting total quality management (TQM) to government. Public Administration Review, 52, 356-362.

Tunner, J. R. (1990). A quality technology primer for managers. Milwaukee: ASQC Quality Press.

Weintraub, R. (1992). Best of America Human Resources Conference. Tampa, FL.

Xerox Corporation. (date unknown). Quality: The bridge to our customers. Author.

Zenger-Miller. (1991). Facilitating successful meetings: A two-day program. San Jose, CA: Author.

APPENDIXES

APPENDIX A

Institutional Review Board Approval

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
FOR HUMAN SUBJECTS RESEARCH

Date: 10-05-93 **IRB#:** ED-94-014

Proposal Title: CRITICAL COMPONENTS FOR A SUCCESSFUL IMPLEMENTATION OF TOTAL QUALITY MANAGEMENT IN GOVERNMENT AGENCY

Principal Investigator(s): Dr. Garry Bice, Victoria S. Dearing

Reviewed and Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved

APPROVAL STATUS SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW BOARD AT NEXT MEETING.
APPROVAL STATUS PERIOD VALID FOR ONE CALENDAR YEAR AFTER WHICH A CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE SUBMITTED FOR BOARD APPROVAL. ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR APPROVAL.

Comments, Modifications/Conditions for Approval or Reasons for Deferral or Disapproval are as follows:

Provisions received and approved.

Signature:  Date: October 5, 1993

Chair of Institutional Review Board

APPENDIX B

Cover Letter and Survey

Victoria S. Dearing
4119 Westbrook Drive
Stillwater, Oklahoma 74074
Home 405/377-8394 - Work 405/743-5561

October 8, 1993

Ms. Melanie Kennedy
Arkansas Department of
Finance and Administration
P. O. Box 3278
Little Rock, AR 72203

Dear Melanie:

Thanks for agreeing to participate in this research project. You were asked to participate because you have been identified as a leader in a total quality management initiative in a government agency.

Over the last 10-12 years, much of the private sector has recognized total quality management as critical to their survival and has embraced it as a way of doing business. As a result, much has been discovered and written about the components which contribute to the successful implementation of total quality management in the private sector.

Following the lead of the private sector, some public sector organizations, like yours, are now implementing total quality management. Unfortunately, little has been written about the components which contribute to the successful implementation of total quality management in the public sector. This study will attempt to identify those components which are critical to successful implementation of total quality management in government agencies.

I will call you on Tuesday, October 12, at 3:00 a.m. to record your responses. All responses will be confidential and no attempt will be made to match responses to particular respondents. Data will be evaluated based on the cumulative input of those responding rather than on an individual basis. Findings will be shared with those participating in the survey.

Your participation is greatly appreciated!

Sincerely,

Vikki Dearing

SURVEY

DEMOGRAPHIC INFORMATION

Title of person completing the survey_____

How long has the organization been involved in a formal TQM implementation?

_____

Approximate percentage of employees who have received some training in quality skills

and/or concepts_____

RANKING SURVEY - MAJOR COMPONENTS

Based on your experience, please rank the following major components, with "1" being the most critical component which is contributing positively to your total quality implementation efforts, "2" being the next most critical component, and so on. If a component is a part of your quality initiative, but one for which no activity has yet taken place, please leave the space blank. If a component is not a part of your quality initiative, please write "N/A" in the space next to that component.	
	Organization Focus/Strategic Plan - having in place values, vision, mission and strategic goals for the organization which provide a common focus for the TQM initiative.
	Management Behavior/Commitment - management of the organization is committed to TQM concepts and model total quality tools and concepts in their daily work and in their leadership.
	Infrastructure - the organization has an infrastructure to specifically support the TQM initiative (i.e., quality steering committee, improvement teams, etc.).
	Training - all or most employees participate in formal training programs which address TQM tools and concepts.
	Communications - there is a formal effort to keep all employees informed about the TQM efforts and progress of the organization.
	Rewards and Recognition - systems are in place which recognize and/or reward individuals and teams who use TQM tools and concepts in conducting business.
	Improvement Activities - improvement teams are in place and active throughout the organization.

RANKING SURVEY - ITEMS WITHIN MAJOR COMPONENTS

*Based on your experience, please rank the following **items within each major component** with "1" being the most critical item which is contributing positively to the implementation of total quality management within that major component in your organization, "2" being the next most critical item, and so on. Rank each major component separately (i.e., the items in Organization Focus/Strategic Plan will be ranked 1-3, the items in Management Behavior/Commitment will be ranked 1-6, etc.). If an item is a part of your quality initiative, but one for which no activity has yet taken place, please leave the space **blank**. If an item is **not** a part of your quality initiative, please write "**N/A**" in the space next to that item.*	
ORGANIZATION FOCUS/STRATEGIC PLAN	
	The organization has established values, vision and mission.
	The organization has a "working" strategic plan.
	The organization's strategic plan and quality initiative are linked together.
MANAGEMENT BEHAVIOR/COMMITMENT	
	Managers use quality concepts and tools to get their work done.
	Managers encourage subordinates to use quality concepts and tools to get work done.
	Participative management is a way of life in the organization.
	Managers regularly use coaching skills in working with employees.
	Managers receive subordinate and peer reviews relating to their use and practice of total quality management concepts and tools.
	Adequate financial and human resources are dedicated to the quality effort.
INFRASTRUCTURE	
	A steering committee, which includes top management, directs the implementation of total quality management in the organization.
	A quality coordinator, reporting to the CEO, "orchestrates" the quality efforts.
	Quality mentors or advisors (employees who receive advanced training in quality tools and serve as process guides for improvement teams) are identified and used.
	Quality improvement teams, both functional and cross-functional, operate continuously.
TRAINING IN. . .	
	TQM concepts and tools
	Interpersonal skills
	Team skills
	Facilitating meetings
	Advanced quality tools
	Coaching skills for managers

	COMMUNICATIONS
	Quality is addressed in all staff meetings.
	A TQM implementation plan is written and followed.
	A quality newsletter is used.
	Quality improvement progress charts and reports are posted and/or distributed.
	Members of top management are champions for quality.
	A common quality language is used throughout the organization.
	Customer surveys are conducted on an ongoing basis.
	REWARDS & RECOGNITIONS
	The use of quality concepts and tools is reflected in the performance evaluation of each employee.
	Annual celebrations for quality recognition are held.
	Peer recognition systems exist and are used.
	A fundamental consideration for promotions is the commitment to total quality management by the person being considered for promotion as evidenced by previous actions and results.
	Pay and pay increases are connected to the use of quality concepts and tools.
	IMPROVEMENT ACTIVITIES
	Quality improvement teams are used throughout the organization to solve problems and improve products, services and processes.
	Measures and standards for at least some processes are established and monitored.
	Employees have ready access to data needed to establish baseline measures.
	Employees can and do use basic quality tools in their daily work.
	Improvements are implemented on an ongoing basis.
Comments	

VITA

Victoria S. Dearing

Candidate for the Degree of

Master of Science

Thesis: CRITICAL COMPONENTS FOR A SUCCESSFUL IMPLEMENTATION OF TOTAL QUALITY MANAGEMENT IN GOVERNMENT AGENCIES

Major Field: Occupational and Adult Education

Biographical:

Personal Data: Born in Oklahoma City, Oklahoma, March 30, 1948, the daughter of Wendell L. and Icelone M. Boaz

Education: Graduated from Northwest Classen High School, Oklahoma City, Oklahoma, in May 1966; received Bachelor of Science Degree in Administrative Services and Business Education from Oklahoma State University, Stillwater, Oklahoma, in May 1970; completed requirements for the Master of Science degree at Oklahoma State University in December 1993.

Professional Experience: 1970-1979 - Oklahoma Department of Vocational and Technical Education; 1979-1986 - Schlegel Oklahoma, Inc.; 1986-present - Oklahoma Department of Vocational and Technical Education.