



Implementing Change Using Education and Training

Robert A. Sniffin
Department of the Navy
Total Quality Leadership Office

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Foreword

In 1989 the Department of the Navy (DON) committed to launching a major organizational change effort to improve mission performance. The effort was called Total Quality Leadership (TQL). An Executive Steering Group (ESG) comprised of the Department's top leaders was formed to guide the implementation of TQL in its logistics support organizations. Later, the implementation effort was expanded to include all elements of the Department.

The ESG decided that education and training would play a major role in implementing TQL throughout the Department. They established a team to design and develop a DON TQL education and training program. The ESG also established a support group to provide expertise in implementing TQL, and technical oversight of the education and training program used in its implementation. The group was named the Total Quality Leadership Office (TQLO) and was assigned to the Office of the Under Secretary of the Navy.

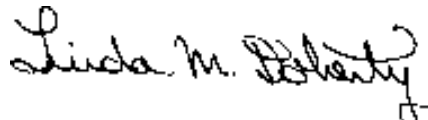
Foreword

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By the end of 1997 top leaders in the DON declared the TQL education and training program a success. It had achieved its major objectives and provided the education and training necessary to implement TQL throughout the Department of the Navy. The quality transformation process was well underway. Because of the significant progress made in implementing TQL as a major element of transformation, the Secretary of the Navy determined that the TQL office had also succeeded in its mission. Consequently, the TQL office will be disestablished in the summer of 1998.

This report documents the history of the Department of the Navy's TQL education and training efforts that supported the implementation of TQL in the Department of the Navy.

A handwritten signature in black ink that reads "Linda M. Doherty". The signature is written in a cursive style with a large initial "L" and a decorative flourish at the end.

Linda M. Doherty, Ph.D.
Director, Total Quality Leadership Office
Department of the Navy

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Acknowledgements

Thanks to the vision, commitment and tireless effort of many individuals, the Department of the Navy has been undergoing a profound quality transformation for almost a decade. Special thanks to the former Secretary of the Navy, H. Lawrence Garrett III, for launching the effort in 1989. Special thanks also to the former Under Secretary of the Navy, J. Daniel Howard, for leading the coalition formed to guide the transformation in the crucial early years. The coalition, known as the Executive Steering Group formed and guided a team to design and develop a Department-wide education and training program to support the transformation.

The difficult work of the design team was made easier because of the excellent guidance and support provided by the late VADM John Disher, Chief of Naval Education and Training, and his successor VADM John H. Fetterman, Jr. Once the program was designed, the curriculum was developed and a special group of instructors was trained to deliver that curriculum to trainers from commands throughout the Department of the Navy. Thanks go to those

who developed the curriculum and those who trained the special cadre of trainers. Special thanks go to Dr. Steven L. Dockstader who provided much of the technical content for the quality curriculum, and who trained most of the instructors assigned to training Department of the Navy's senior leaders in the principles and methods of total quality leadership. Dr. Dockstader also provided much of the training for the other TQL specialists who formed the cadre of TQL specialists assigned to the two TQL schoolhouses. This cadre trained over 30,000 leaders and trainers from different commands from 1991 through 1997. Because of their dedication and skill, the quality transformation message from the Department's top leaders, and the knowledge and skills necessary to implement the transformation were effectively communicated to all components of the Department. The success of the quality transformation in the Department of the Navy was in large measure the result of the education and training program designed, developed, and implemented by this large diverse group of dedicated and skilled individuals.

Executive Summary

This report describes the education and training program the Department of the Navy developed and deployed to support the implementation of a major organizational change initiative known as Total Quality Leadership (TQL). It illustrates the process of developing the education and training strategy, the curriculum, and the administrative structure used to manage the program. Also presented are some of the lessons learned along the way and how the journey could be made easier for organizations embarking on a similar journey.

In 1989 the Department of the Navy officially launched a new initiative to improve mission effectiveness and reduce overall costs. This initiative focused on quality and would require many changes in the way quality was achieved such as: shifting the emphasis from the traditional approach of inspecting quality into its products to an emphasis on improving the processes that produced the products; requiring new knowledge and understanding of the systems and processes of an organization; redefining the role of leaders and others

in an organization involved in implementing changes in the major systems of the organization; requiring a major commitment to organizational change on the part of top leaders in the Department; and requiring a major education and training effort to provide the knowledge and skills needed throughout the Department to implement these changes.

In 1989 a design team was established by the Department of the Navy's Executive Steering Group (ESG) to define the strategies, curriculum, and management structure for an education and training program to support the implementation of TQL in the Department. The ESG had decided that it would develop its own education and training program using in-house Department of the Navy resources to develop the curriculum, provide the training, and centrally manage the program.

The primary strategy for providing the training was to train trainers from commands throughout the Department who would provide that training in their own commands. This was known as the train-the-trainer strategy. The train-the-trainer strategy was implemented by training seventy-three experts in TQL comprised of DON military and civilian personnel as well as individuals from the private sector and having them train representatives from organizational units (commands). These representatives would then train members of their own organizations. The seventy-three specially trained TQL specialists spent up to eighteen weeks in training. Two TQL schoolhouses were established in Little Creek, Virginia, and Coronado, California, to train trainers from individual commands. Over 9,500 individuals attended Senior Leaders Seminars and over 23,000 individuals received training in the rest of the

core curriculum.

The TQL curriculum was comprised of six courses. The capstone course was the Senior Leaders Seminar. It was for the top military and civilian leaders of commands and units in the Department. The other five courses provided the knowledge and skills necessary for a critical mass of leaders and managers to assist the top leaders in implementing TQL in their organizations. The Senior Leaders Seminar was first offered on January 1991. The rest of the curriculum came on line in April 1992.

The process of designing the TQL education and training strategy, curriculum, and management structure was difficult and time-consuming. A number of important lessons were learned from this experience. One of these lessons was that if you don't have the right members on the design team who understand the nature of the change being implemented, it will slow down the design process and delay the start of training and the implementation of change.

Another lesson learned is that working the design process as a collateral duty and meeting only occasionally is also very inefficient. Also, the absence of dedicated resources such as a team facilitator and technical advisor slows the

design process down and puts too many diverse demands on the team leader. The absence of a clear charter delineating the goals, tasks, and scope of the design effort also contributes to an inefficient and ineffective process. These difficulties were eventually overcome, but at the expense of a lot of extra effort and time.

To avoid some of these difficulties the following recommendations are provided. First, get the right members on the team. This includes representatives from each of the major organizational units that will be affected by the change being implemented, and the education and training established to support the change. Make sure each member of the team is familiar with the change. Educate the team if necessary. Make membership on the team a full-time assignment until the design task is completed. Assign a facilitator and technical advisor to the team. Establish rules for team functioning and follow them. Provide a clear charter for the team. Establish a close link between the team and the leaders who chartered it. And finally, communicate, communicate, communicate. Keep all team members engaged, keep leadership informed, and let the rest of the organization know what you are doing.

One goal of the education and training program was to educate and train 150,000 individuals to comprise a critical mass for change in the Department. The critical mass was described as those individuals with the authority, knowledge, and leadership necessary to initiate and sustain TQL implementation in the DON. Survey data indicates that this goal was achieved and TQL implementation is now widespread throughout the Department. Therefore, it can be concluded that educating and training a critical mass of people to

implement change in an organization is an effective way to achieve that change.

Another goal of the education and training program was to integrate the principles and methods to TQL in all accession and leadership training programs in the Department. The integration process began in 1991 and is ongoing. The purpose of this goal was to make TQL education and training a permanent part of institutional training so that the stand-alone TQL education and training program could eventually be discontinued. Top leaders in the Department determined that this goal has been achieved. Therefore, the TQL schoolhouses on the east and west coasts were officially closed in January 1998.

Introduction

In the decade of the eighties the Department of the Navy (DON) launched a major change initiative to reduce costs and improve mission effectiveness in its thousands of operational and support commands located around the world. This initiative was known as “Total Quality Leadership” (TQL). Its major focus and strategy was to improve quality through improvement of mission-critical processes within a strategic framework. The change envisioned by the leadership of the DON was comprehensive and fundamental, i.e., a transformation in the culture and how work is performed in the Department.

Transforming a large organization such as the DON is a complicated and time-consuming task. It must start with a sense of urgency and need by the top leaders of the organization. Those leaders need to come together to form a coalition, a team to create a vision for the future and lead the change towards the vision. Top leaders cannot create the future by themselves. They need the help of key people in the organization who will carry the message and

begin the process of implementing the change. If the change is complex and requires new knowledge and skills by members of the organization, then a means to provide the knowledge and skills needs to be developed and put in place. This is what happened in the DON. It may happen or be happening in your organization. If so, you might benefit from the lessons learned by the DON as it went through the process of designing, developing, and executing an education and training program to support the implementation of TQL. This implementation was the first phase in the transformation of the DON.

Purpose of this Report

This report has multiple purposes: first, to describe the DON Total Quality Leadership education and training program; second, to share some lessons learned in the design, development, and deployment of the program; and third, to set forth some guidelines and recommendations for anyone embarking on the development and administration of a large-scale education and training program in support of an organization-wide transformation.

While the focus of transformation within the DON was on quality, the guidance provided here should apply to any large-scale education and training effort in support of a major organization transformation initiative.

Background

In the mid 1980s the Department of the Navy began experimenting with the application of statistical process control and quality management techniques as a means of improving quality and reducing costs in logistics support organizations.¹ Out of these early experimental efforts a set of requirements was developed that spelled out what would need to be done to apply statistical process control, and quality management techniques in logistics support organizations.

The first requirement was to make quality a strategic objective. To address this requirement, the Under Secretary of the Navy formed an executive-level group of leaders to guide the implementation of the strategic objective. The new leadership team was called the “Executive Steering Group” (ESG). The strategic objective it was pursuing was known originally as “Total Quality Management” (TQM). This term was later changed to “Total Quality Leadership” (TQL) to reflect the key role that leaders at all levels within the Department would have to play in its implementation. To begin implementing TQL in the Department leaders had to first learn about what it was and how to plan for its systematic implementation. Therefore, the ESG decided that its first task was to direct the development of a comprehensive TQL education and training (E&T) program.²

Description of TQL

The elements of TQL as applied within the DON would guide the objectives and content of the E&T program.

These elements were:

- ① a definition
- ② a philosophy
- ③ an implementation approach
- ④ a team structure, and
- ⑤ a scientific approach

A very short description of the elements is presented below.

Definition.

TQL is defined as “the application of quantitative methods and the knowledge of people to assess and improve; (a) materials and services supplied to the organization, (b) all significant processes within the organization, and (c) meeting the needs of the end-user, now and in the future.” The definition identifies the “what,” “where,” and “when” of TQL. The “who” and “how” are contained in other elements of TQL described below.

Philosophy.

The underlying philosophy of TQL is based on the quality improvement philosophy of W. Edwards Deming (1900-1993).³ The principal elements of his philosophy derive from; (a) a theory of variation, (b) application of systems theory to managing organization, (c) psychology of work, and (d) use of the scientific method to pursue optimal performance.

Implementation approach.

A two-phased approach to TQL implementation was adopted by the Department of the Navy. (Doherty, 1990).⁴ This approach addressed implementation at the unit or command-level because of the key role that commanding officers would play in implementation. Figure 1 is a graphic representation of this approach. The first phase begins with educating a critical mass of leaders to plan and conduct process improvement efforts within a command. Part of the planning process is the development of a training plan to support process improvement. This was known as the process management phase of TQL implementation. The second phase builds on the first phase. It focuses on strategic issues such as supplier relationships, organization structure, organization-wide continual process improvement, and addressing organization cultural issues for sustaining continual improvement into the future. This phase was known as the strategic management phase of implementation.

Figure I shows that there is an overlap in time of the two phases. The transition from phase-one activities to phase-two activities is gradual. As the critical mass begins to apply TQL methods to improve processes, it uses the knowledge gained to provide better strategic guidance for future process management activities. Eventually, all process management activities are conducted within a strategic framework, i.e., processes are managed strategically. This two-phase approach to TQL implementation at the unit or command-level had a major influence on the strategy content and structure of the E&T program.

TQL team structure.

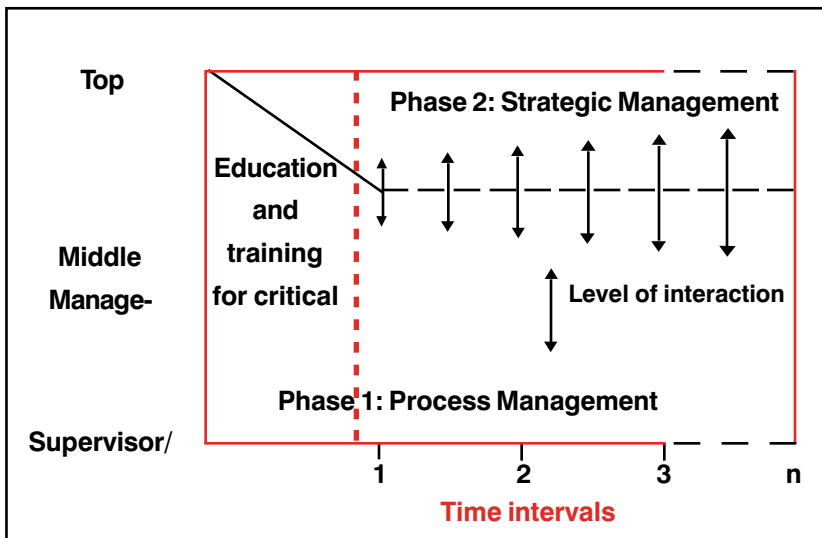


Figure 1. DON two-phase implementation approach.

This element addresses the “who” of TQL. Authority for making cross-functional changes in organizational systems and processes is exercised through the chain of command. A means for accomplishing horizontal cross-

functional process improvement while maintaining the integrity of the vertical chain of command was required to effectively implement TQL. The management structure is comprised of teams at the top, middle, and lower levels of an organization. These teams are vertically linked to retain the chain of command and to ensure that process improvements are coordinated at the highest level within an organization. This linking and coordination ensures that process improvement efforts do not suboptimize the performance of some sections of the organization at the expense of others.

The highest-level team is called an “Executive Steering Committee” (ESC). It is usually made up of the commanding officer and department heads who determine the processes most critical to mission performance that are in need of improvement. The mid-level teams are called “Quality Management Boards” (QMBs). They are comprised of mid-level managers who have the authority to make changes in processes based on data developed through the application of a scientific approach. Members of QMBs are known as process owners. It is the members of the ESC and QMBs who comprise the critical mass of leaders needed to initiate and sustain TQL implementation in the organization.

Lower-level teams are called “Process Action Teams” (PATs). They are made up of individuals who work in the process. These teams assist

process owners in collecting and analyzing process data, identifying sources of excess variation, reducing or eliminating waste that does not require mid-level management approval, and making recommendations to QMBs for changes in processes beyond their level of authority.

These teams are supported by internal consultants known as “TQL Coordinators” and “Quality Advisors.” The coordinators and advisors played a major role in the strategy to educate and train DON personnel in the principles and methods of TQL.

Finally, each team is vertically linked to a lower-level team through a person called a “linking pin.” Linking pins are responsible for clarifying a lower-level team’s charter assigned by a higher-level team. This structure maintains the chain of command and ensures that improvement efforts are mission-focused.

A scientific approach.

This is the “how” element of TQL. Managing processes for improving mission performance depends on a planned approach for collecting and analyzing process data. Application of this approach is conducted through a “Plan-Do-Check-Act” (PDCA) cycle. It is through the PDCA cycle that most processes are studied and improved. Process Action Teams are the primary users of the PDCA cycle, although the cycle can be applied at any level in an organization.

Initial Education and Training Program Decisions

Before deciding what kind of an education and training program it wanted, the ESG looked at what type of quality training was already being conducted in the DON. The Under Secretary of the Navy met with representatives from major headquarters logistics commands who were already conducting training in quality improvement in 1989. He found a wide variety of training approaches being used from off-the-shelf packages, to training by external consultants, to home-grown programs. He concluded that there was no consistency in these approaches, that there were as many forms of total quality being taught as there were training programs, and that buying training from external sources was very expensive. He also observed that there was no central administrative control of the training and no means of managing curriculum development and revision.

Based on these observations the Under Secretary of the Navy and the ESG made a series of decisions. First, the DON would develop its own E&T program rather than purchase it from external sources. Second, the E&T program would be based on a single approach to quality management. That approach would follow the management philosophy of W. Edwards Deming. Third, the DON E&T program would be centrally managed and administered. The ESG wanted a program that was

efficient to design and implement, low in cost to develop and administer, and one that would train a large number of people in a relatively short time. A daunting task for an organization of almost one-million people, both military and civilian. These individuals were involved in major logistics and repair activities, and in military units deployed around the world. From these basic requirements a training program was developed. The content, strategy, and implementation plan for the program still needed to be developed.

Organization Constraints Affecting TQL Education and Training

The major purpose of the TQL E&T program was to support the implementation of TQL in the DON. Two organizational constraints that TQL implementation and the supporting (E&T) program had to deal with were the relatively high turnover rate (rotation) of commanding officers in the DON, and the hierarchical structure of the DON. The first constraint led to the development of a two-phased approach to TQL implementation in the DON. During phase one the primary focus was on launching a series of process improvement projects in order to demonstrate the benefits of TQL to the commanding officer and the rest of the organization. The supporting E&T program was focused on this phase of TQL implementation. Phase two addressed more widespread changes in organizational systems, culture, and structure. This would be the responsibility of those commanding officers who succeeded the one launching the TQL implementation process. The design group decided to

defer development of courses supporting phase two of TQL implementation and concentrate its limited resources on developing courses to support phase one.

Hierarchical structures characterized by vertically linked functional units do not lend themselves naturally to cross-functional process improvement. In order to deal with this constraint the DON TQL concept employed an interlocking team structure that preserved the administrative chain of command while allowing cross-functional process improvements to continue. The major participants in the upper and mid-level teams, i.e., Executive Steering Committees and Quality Management Boards, respectively were usually Department and Division heads. In TQL terms these were the process owners. This group of leaders in the organization was called the “critical mass.” It was these individuals who had the position, power and leadership, but lacked the knowledge of TQL to initiate and sustain TQL implementation during phase one. This critical mass became the primary target of the DON TQL education and training program. The specific roles these individuals would play as members of interlocked process improvement teams and the knowledge and skills they needed for these roles became the basis for the content of the DON TQL curriculum.

Education and Training, Implementation, and Transformation

Education and training was designed as a component of TQL implementation, not implementation itself. Likewise, TQL implementation was not intended to be equivalent to transformation. However, there is a close relationship between TQL education and training, implementation, and transformation. There are also other factors involved in this relationship. Figure 2 shows these relationships. One factor affecting transformation but not previously mentioned is the strategic framework for change created by leadership. An element of the strategic framework is the vision of the future created by top leaders. This vision is communicated through education and training, and guides the selection of processes to be managed and improved during phase one of TQL implementation.

In addition to the interrelationships shown in Figure 2, there is an initial sequence in the direction of these relationships. It starts with leadership's vision of the future. In the DON, that vision, or strategic objective was TQL. The elements of TQL were described in the education and training program. This education and training was provided to support phase one of TQL implementation. Ideally, as TQL implementation progressed it would feed back into education and training, and the strategic framework in the form of major changes to organizational culture and structures that inhibit the transition to phase two of implementation, and eventually to transformation. Leadership's role in transformation is critical. Leadership initiates TQL implementation in phase one and sustains its

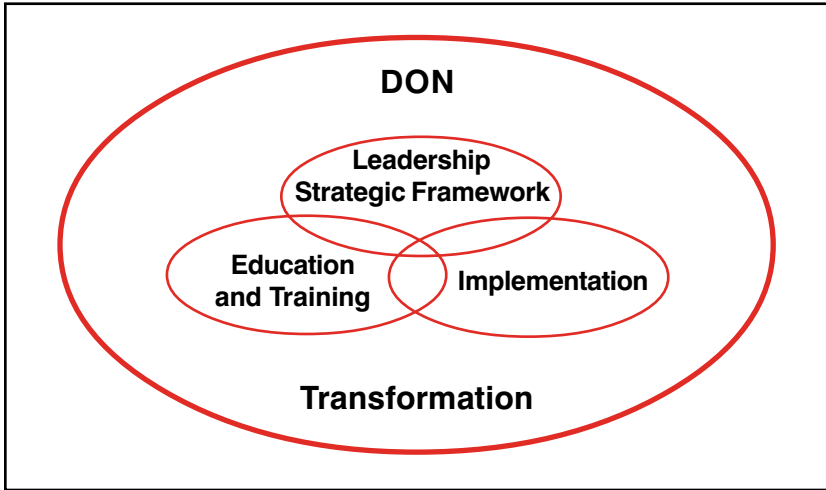


Figure 2. Factors affecting transformation.

long-term support through phase two and transformation.

Viewing Figure 2 as a systems model, it is clear that there would be significant interaction among the various factors affecting transformation. As with many models, Figure 2 is intended as a framework for understanding the possible relationships among a variety of interlinked factors. In this case it provides a conceptual framework for thinking about the relationships between leadership, TQL education and training, TQL implementation, and transformation in the DON.



Designed by Inés Muñiz-Suárez