

Fundamentals of Total Quality Leadership

Module 3: System of Profound Knowledge

Lesson 2: Psychology

Instructor Information

Lesson Outline

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Lesson Objectives

By the end of this lesson to student will be able to:

- EO 3-7 Describe psychology as part of the System of Profound Knowledge.
- EO 3-8 Explain how differences and similarities of people affect work behavior.
- EO 3-9 Explain why working in teams is important for quality improvement.
- EO 3-10 Explain what is involved in changing the culture of an organization.
- EO 3-11 Explain the definition of critical mass.

Length of Instruction

This lesson takes approximately 3 hours

Methods of Instruction

Lecture, discussion, exercise, and videotape

Instructor Information (continued)

Media Required

Overhead projector, screen, video cassette recorder, television monitor, chartpack, and felt-tip pens

Exercise Materials

Broken Squares Exercise Kit

Videotape

Competition, Cooperation, and the Individual. Crawford-Mason, C. (Producer), & Dobyms, L. (Journalist). (1987-1989). [Videotape, The Deming Library, Volume XV]. Washington, D. C.: CC-M Productions. (Time: 25 minutes)

Additional Readings

None

Fundamentals of
Total
Quality
Leadership

Module 3
System of Profound Knowledge
Lesson 2
Psychology

Fundamentals of Total Quality Leadership (FTQL)

Module 3: System of Profound Knowledge

Lesson 2: Psychology

We will look at why it is important to recognize how people's similarities and differences affect their work behavior. This lesson will explore why working in teams is important, why adopting a total quality approach requires us to transform the culture of our organization, and why leaders have new roles in a total quality organization.

Learning Objectives

At the end of this lesson the student will be able to:

- ◆ Describe psychology as part of the System of Profound Knowledge
- ◆ Explain how differences and similarities of people affect work behavior
- ◆ Explain what is involved in changing the culture of an organization
- ◆ Explain the definition of critical mass
- ◆ Explain why working in teams is important for quality improvement

Learning Objectives

By the end of this lesson the student will be able to:

- ◆ **Describe psychology as part of the System of Profound Knowledge**

Psychology is one of the four parts of the System of Profound Knowledge. In this lesson you will learn why knowledge of certain areas of psychology is essential for the transformation to Total Quality Leadership.

- ◆ **Explain how differences and similarities of people affect work behavior**

To optimize the activities (behaviors) of all people toward achieving the aims of the organization, management must recognize the similarities and differences of people. While people are similar in many ways, they cannot be perceived as **interchangeable parts** .

◆ **Explain what is involved in changing the culture of an organization**

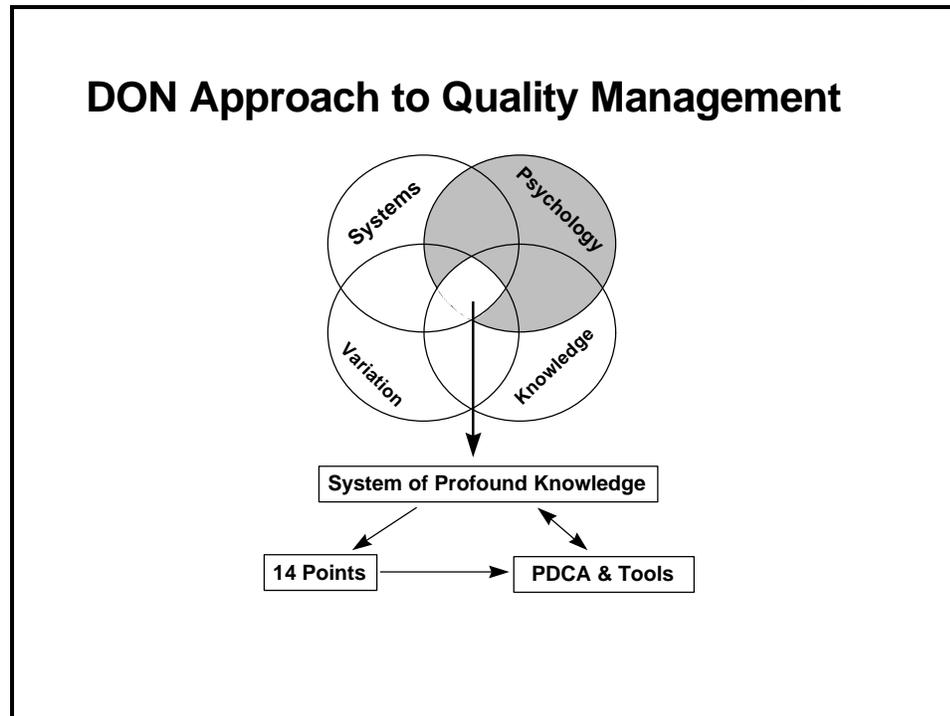
A total quality approach to management will require a cultural change of the organization. Some organizations will require greater change than others. Change is a **process** and, like any process, it has essential elements that must be addressed if change is to take place. It is important to understand and address each element of the change process. Changing the culture of an organization is difficult to achieve, but leaders can do it if they clearly understand the process of change and carry out the needed **actions**.

◆ **Explain the definition of critical mass**

You will learn what is meant by the critical mass and how teams are organized to develop a critical mass.

◆ **Explain why working in teams is important for quality improvement**

Total Quality Leadership is a team-oriented method of management. The method works best when people at all levels in the organization see the value of teams and learn how to work effectively in teams. Teams are not the same as committees. You will learn that teamwork in a quality-focused organization is a **process** and that the team has an **aim** that relates directly to the overall aim or mission of the organization.



DON Approach to Quality Management

Instructor Direction: To provide a common understanding among the students about the domain of psychology, start with the question, "What does the word 'psychology' mean to you?" After a few responses, continue with the focus on the role of psychology in organizations.

Psychology is commonly defined as the study of human behavior and is a wide field of study with many specialized disciplines. In the context of TQL, two areas of psychology are of particular importance -- **industrial** psychology and **organizational** psychology. These areas cover such topics as organizational design, the psychology of work, individual differences, motivation, reward systems, small group (team) and organizational behavior, cultural change in organizations, and leadership.

Why is it important to study psychology? As you learned in Lesson 3-1 (Systems) , the leader's job is to optimize the **total** organizational system. The study of psychology, as the **science of behavior** , addresses the human or psychological aspects of the organization as a system. To make the transformation to total quality, we need to understand how to change the behavior of **individuals** (leaders, workers) and **groups** (organizations, teams). Knowledge of some psychological principles can help us do that.

Although no single psychological theory or “expert” has yet been able to fully explain human behavior, theory does help us understand the “people” aspect of the total quality transformation.

 **Instructor Direction:** Ask the students to recall the **five** elements in the DON definition of TQL given in Module 1. Note that psychology is primarily related to the "people" element.
“... quantitative methods and knowledge of people...”

Exercise...
“Broken Squares”

Exercise: “Broken Squares”

🕒 **Exercise:** Conduct the exercise in accordance with Module 3-2 Annex, “Instructions for Conducting the Broken Squares Exercise” found in the back of this module.

Time: 45 minutes

Understanding People: Theories of Motivation

◆ Abraham Maslow

- Physiological
- Security
- Social
- Esteem
- Self-actualization

◆ Frederick Herzberg

- Motivators (satisfiers)
- Hygiene Factors (maintenance)

◆ David McClelland

- Achievement
- Affiliation
- Power



Types of motivation: Extrinsic and Intrinsic

Understanding People: Theories of Motivation

Motives are the needs or wants, related to a person's desired goals, expressed as recurrent thoughts that affect behavior which leads the person to his or her goals. Put simply, **motives change, select, and direct behavior toward a specific goal** .

All adults carry with them the potential to behave in a variety of ways. How they behave depends on: (a) the strength or the readiness of the various motives the person has, and (b) the characteristics of the situation and the opportunity. In large part, the characteristics of the situation will determine which motives are aroused and what kind of behavior will be generated.

The importance of understanding individual motives and their impact on management theories has been the focus of many social psychologists. Of those, three who have contributed to the works on motivation are Abraham Maslow, Frederick Herzberg, and David McClelland.

◆ Abraham Maslow

Dr. Maslow developed a model of motivation in which he described a hierarchy of needs that underlie all human motivation:

- Physiological
- Security
- Social
- Esteem
- Self-actualization

He proposed that a person's lower-level needs (e.g., physiological needs such as food and water) must be **satisfied** or **saturated** before the person can pay attention to the next higher-level need. Once a level of need had been satisfied, it no longer has any power to motivate. Self-actualization, the highest need, is the exception to this **progression**; it cannot be satisfied. He characterizes it as the need for self-development and the fulfillment of one's potential as a person (behavior in response to self-actualization leads to additional behavior in response to this need).

◆ Frederick Herzberg

Dr. Herzberg stated that a person's needs could be categorized into two groups: Motivators (Satisfiers) and Hygiene Factors (Maintenance).

Motivators (Satisfiers)

- Responsibility
- Achievement
- Recognition
- Challenging work
- Growth and development

Hygiene Factors (Maintenance)

- Money
- Working conditions
- Security
- Interpersonal relations
- Status
- Supervision
- Policies and administration

Dr. Herzberg theorized that the presence of "hygiene factors" alone does not tend to produce job motivation and performance, but their absence tends to produce dissatisfaction. "Motivators" have a positive impact; their presence will energize people to perform.

◆ David McClelland

Dr. McClelland's research does not discount that all individuals possess *many* motives of varying strengths. He contends that motives are acquired in childhood and generally stay the same over a long period of time. People often do learn from experience, and specific situations change. The focus of his research has been in the area of what he calls "**Social Motives**". These three categories of motives are: need for achievement, need for affiliation, and need for power.

- **Achievement** is the need to do better (against some standard of performance).
- **Affiliation** is the need to develop and maintain close personal relationships.
- **Power** is the need to have control or influence on people.

Every person has within them each of these motives. The **relative** strength of the motives is key in how a person would normally behave (which of the three motives is considered dominant, which is second, and third). Dr. McClelland's research revealed thoughts and behaviors that were characteristic of each of the three social motives.

◆ Types of motivation

Logan's (1970) definition of motivation is, "The internal source of energy driving the organism [person] to do something . . ." Some psychologists studying motivation in the work place divide motivation into two general categories -- extrinsic and intrinsic.

- **Extrinsic motivation** comes from outside the person and is largely determined by the formal organization. Extrinsic rewards are tangible and are usually associated with:
(a) **monetary** rewards like pay, benefits, bonuses, promotions, and (b) **non-monetary** rewards like praise, pat on the back, larger offices, or designated parking spaces.

Extrinsic motivation is not generally related to the content of the task, but is more focused on task accomplishment (meeting schedule, reducing cost) and consequences (rewards, punishment, indifference).

- **Intrinsic motivation** comes from within the person. It is largely influenced by the nature of the work itself -- when a person finds the work enjoyable -- and a person's interests. Intrinsic motivation is less tangible than extrinsic motivation and is usually associated with feelings of achievement and growth on the job.

What makes it particularly difficult for managers and leaders to “motivate” others is that different rewards work for different people. Also, while speculating about what motivates people is interesting, it is important for our purposes to recognize that motivation is really just a hypothesized internal state. It is useful in the context of TQL only in terms of how it actually affects behavior -- specifically the similarities and differences we observe in people.

All behavior (performance or change) depends on **ability** and **motivation**. It is important that managers address **both** variables when addressing individual performance or change issues. Ability addresses the question of "**Can** they do it?" whereas motivation addresses the question of "**Will** they do it?" The answers to these questions require different management action.

It is better for managers to assume that performance problems (such as low productivity or resistance to change) are due to a lack of ability (not enough training, the work system) instead of a lack of employee motivation. Just an offer from a supervisor to provide training or special help for a person may improve an employee's behaviors or attitudes. To assume that problems are always due to lack of motivation promotes fear and mistrust in employees throughout the organization.

Understanding Similarities of People

- ◆ Need to be part of a group
- ◆ Need to be respected by others
- ◆ Need to avoid punishment
- ◆ Natural inclination to learn
- ◆ Desire to do well

Understanding Similarities of People

◆ Need to be part of a group

Maslow, Herzberg, McClelland and others support the contention that people are born with a need for relationships with other people. This shared need is helpful for adapting organizations to a team-based approach to improving work processes.

◆ Need to be respected by others

People naturally seek personal recognition and respect, particularly from people who play a significant role in their lives (e.g., friends, peers, co-workers, and supervisors). Needing performance feedback, seeking personal approval, and being in positions of leadership are traits associated with McClelland's social motives. Within Maslow's hierarchy of needs, when social needs are satisfied, people have to have a need to feel good about themselves -- they develop a need for personal esteem. (Status was identified as a "Maintenance" need by Herzberg.) Recognizing this need is important because it supports the notions of involving workers and providing an environment for pride of workmanship.

◆ Need to avoid punishment

Punishment is not an efficient way of controlling behavior. When someone is **rewarded** for specific behavior (such as meeting a deadline or developing a useful product), the recipient knows what behavior caused the reward and is likely to repeat it. When someone is **punished** for specific behavior, the lesson learned is, “Do not repeat that behavior or any behavior that resembles it.” The question for the recipient of the punishment is, “What do I need to do to improve?” Punishment specifies what **not to do**, it does not always specify what **to do**. Also punishment:

- Increases **variation** in behavior as a person tries, through trial and error, to learn correct behaviors that avoid further punishment.
- Generates **hostility** on the part of the person receiving the punishment and will likely have negative effects on other aspects of the person’s overall performance.
- Causes people to engage in **non-value added** activities designed to protect themselves from future punishment (such as keeping files to justify their actions, looking for another job).
- Diminishes **trust** and **loyalty** of the punished person and those who hear about it -- bad news travels fast.
- Creates **fear** which can exact a terrible cost in the work place.

◆ Natural inclination to learn

Anyone watching youngsters learning to walk or playing with a new toy is impressed by their great effort to learn new behaviors. Moreover, as children develop language skills, there comes a time of seemingly endless “**why**” questions on nearly any topic. Somewhere along the way, however, the desire for new learning mysteriously decreases.

Learning and innovation in the work place are similarly stifled by performance ratings which create win-lose situations. On the other hand, research has shown that when provided a climate that rewards and supports creativity, people are more innovative.

◆ Desire to do well

Deming often used the phrase, “People have the right to take pride in their work.” The phrase implies that people want to do well and, what is more important, they will do well if the work environment is structured appropriately. This statement provides an insight into his beliefs (assumptions) about **human nature** .

★ **Additional Information:** Arguments about human nature, whether people are inherently good or evil, began with the ancient philosophers and religious thinkers and continue to this day. In the work place, the human nature issue relates to assumptions leaders have about peoples’ inclinations to work, and how these assumptions influence the way they try to motivate their employees.

Assumptions about human nature are important to leaders because they influence the leader-subordinate relationship, as represented by the “Cycle of Expectations;” the leader’s thoughts of an individual/group lead to behavior which reflects those thoughts. The individual’s/group’s interpretation (thoughts) of the leader’s behavior causes the individual/group to act on those thoughts, which ultimately reinforces the leader’s thoughts of the individual/group.

On the “Cycle of Expectations” in management, J.S. Livingston (1969) writes, “For top executives in industry who are concerned with the productivity of their organizations and the careers of their employees, the challenge is clear: it is to speed the development of managers who will treat their subordinates in ways that lead to high performance and career satisfaction. Managers shape not only the expectations and productivity of their subordinates, but also influence their attitudes toward their jobs and themselves. If managers are unskilled, they leave scars on the careers of the people, cut deeply into their self-esteem, and distort their image of themselves as human beings. But if they are skillful and have high expectations of their subordinates, their self-confidence will grow, their capabilities will develop, and their productivity will be high.”

Successful leaders must express a belief or trust in people’s basic worth or ability to perform. This begins with the fundamental conviction that everyone is fully capable of doing good work when given the opportunity. Having generalized positive feelings toward other people and truly believing they are valuable resources is an expression of **positive expectations** .

Understandably, there are times when leaders must convey doubts and concerns about others' ability to perform when appropriate.

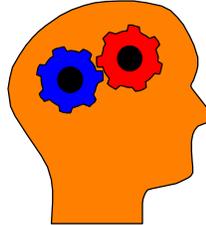
Realistic expectations is expressing a realistic concern that instructions may not always be followed or carried out effectively. A leader must be willing to acknowledge the shortcomings of others and provide constructive feedback, to allow them the opportunity for continual improvement.

Leaders must effectively structure organizational conditions to create opportunities for people, provide guidance instead of directives, remove barriers to effective performance, and encouraging growth and development.

Understanding Differences of People

◆ Learning styles

- Concrete Experience
- Reflective Observation
- Abstract Conceptualization
- Active Experimentation



◆ Levels of ability

◆ Ability to work in teams

◆ Readiness for change



Understanding Differences of People

People vary just as processes vary. Management has responsibility to organize and integrate people variation (such as skill, ability and motivation) to achieve the aims of the organization. The job requires knowledge of the ways in which people are different.

“People are different from one another. A leader must be aware of these differences, and use them for optimization of everybody's abilities and inclinations. Management of industry, education, and government operate today under the supposition that all people are alike” (Deming, 1990).

◆ Learning styles

People processes, like any processes, vary from one person to another. One example is the process by which people **learn**. Our present system of education is based on the assumption that all people learn in the same way.

The system is based on the "factory" or "mass production" model of learning. This model:

- treats all students (raw material or input) the same,
- provides them with the same courses of instruction (internal process), and
- assumes that any differences (output, as measured by grades or tests) are due only to the student's performance and not to the system of instruction.

Most individuals develop a preferred or dominant approach to learning. These preferences are shaped by several factors, including personality type or disposition, academic training, career choice, current job, and current tasks. The way one person learns a skill or to perform a task may not be the most effective or efficient for another person.

According to one theory, there are four basic styles that people have for learning (with one or two of the four characteristically used more often than others by a person):

- **Concrete Experience:** People whose approach to learning emphasizes the concrete tend to learn best from being involved with the activity. Such people prefer specific examples and personal involvement. Diving in and participating in an experience is their preferred method. They take an intuitive approach to problem solving, and often base their understanding of the experience on “gut feelings.”
- **Reflective Observation:** People with this approach to learning prefer to watch rather than take part in an experience. These people learn successfully from situations that allow them to take the role of impartial observers. One approach that observers use to problem-solve is to use techniques that they have seen used in similar situations.
- **Abstract Conceptualization:** People whose approach to learning emphasizes the abstract, tend to learn best from finding out what the “theory” is. This is an analytical and conceptual approach to learning that relies heavily on logical thinking and rational evaluation. These people learn successfully from being told the theory and then abstracting the principles from the theory.
- **Active Experimentation:** Those who prefer this approach tend to learn best by systematically trying out new skills. They learn from activities that allow for disciplined experimentation with a new skill, “trial-and-error.” These people learn successfully from doing projects, homework, or simulations. They enjoy the process of systematic improvement.

From the preceding descriptions of Concrete Experience, Reflective Observation, Abstract Conceptualization, and Active Experimentation, you may have discovered that no single style entirely describes your method of learning. This is because each person’s learning approach is a *combination* of the four basic styles.

Leaders must realize that people learn in different ways and at different speeds. When there is difficulty in the learning process, it may be due to a mismatch in learning approaches. The teaching approach may not be lined up with the approaches of the learners. Knowledge in the different learning styles will help make training more effective, and must be considered when developing curricula, instructional methods, and materials.

Learning style also becomes an important factor when processes are improved and changed because people need to learn a new way to do their work. In a few moments we will examine how individuals may react to change and why change is difficult for many.

◆ **Levels of ability**

Ability is determined in part by experience, training, and education. Management can affect experience by selecting experienced new employees and by providing on-the-job experience that can increase employee ability. Management's greatest control over the ability of its employees can be through education and training.

A word of caution: Education and training that exceeds a person's capacity to learn will not lead to learning. Education and training need to be geared to a person's ability to learn.

★ **Additional Information:** A continuing argument (sometimes referred to as the nature vs. nurture argument) in psychology and philosophy revolves around the issue of the extent to which performance is due to differences in genetic inheritance (nature) or differences in educational and environmental experiences (nurture). Our focus here is on the “nurture” aspects that can be affected in the workplace.

◆ **Ability to work in teams**

People differ in the extent to which they can work effectively in teams. Some people prefer to work in teams; others prefer to work alone. Individuals who prefer to work alone might not know how to relate effectively to people in a group setting. Team skills training can help these people.

Some people cannot, or refuse to, work in teams. The organization might solve this by reassigning the person, if there is work that can be performed by one person. If no such work exists, the organization might have to let the person go. It also is common for such people to leave a team-oriented organization on their own.

◆ Readiness for change

People differ in the extent to which they are willing or able to change. Some people view change as a challenge and accept it readily. Others fear change and may seek ways to resist change. Still others will not change and may need to be reassigned (first choice) or fired (last choice).

An issue related to readiness to change is whether individuals fail to change because they **cannot** change (an ability problem) or because they **will not** change (a motivation problem). The appropriate management actions in these cases will differ depending on the reason for the resistance.

In summary, leaders need to be sensitive to differences in people. The behavioral differences we see may be rooted in:

- ability
- knowledge
- motivation
- learning style
- learning capacity
- reaction to change
- willingness to work with others

These are important differences to recognize when considering work assignments, supervisory assistance, and educational development efforts.

Why Change is Difficult

- ◆ Change is disruptive
- ◆ Change can create fear
- ◆ People worry about what they might have to give up
- ◆ Large-scale change takes time
- ◆ Individuals vary in their readiness for change

Why Change is Difficult

Change requires winning the hearts and minds of the people in an organization. We have discussed winning **hearts** by trying to align beliefs, values, attitudes, and behavior with the nature of the change. We have discussed winning **minds** through education and training. Also leaders must know about and prepare to deal with other consequences of change.

◆ Change is disruptive

Lloyd Dobyns (1991) describes change as **disruptive, complicated and frightening**. However, he goes on to say that, "Not changing is worse." Adopting total quality requires change. The day-to-day flow of work is interrupted by change activities such as education and training sessions and team meetings. More work requirements are put on people's plates which are already full or overflowing. Leaders cannot ignore these concerns and must establish priorities for adequate time and related resources. The priorities established often serve as a reflection of the leader's commitment to the change effort.

◆ **Change can create fear**

The process of change can be frightening for some people. One of the greatest perpetrators of fear in an organization, and perhaps the greatest barrier to cultural change, is the level of **uncertainty** for those affected by the change. There is almost always an unknown level of fear in any organization -- change will often increase fear. The presence of fear in an organization and the resultant cost it produces are so great that Deming identified the removal of fear as one of his Fourteen Points (Point 8, *Drive out fear*) to be discussed in more detail later. The message for management is to reduce uncertainty to the lowest level possible, and keep people informed on what is happening and how it might affect them.

Other fears include the fear of new learning. This is particularly true for TQL with its emphasis on using quantitative methods. Many people are uncomfortable with numbers and mathematical symbols and fear that they will: (a) not be able to learn, or (b) look stupid in front of their peers. People don't want to be placed in positions where they might look dumb in front of their co-workers or subordinates.

◆ **People worry about what they might have to give up**

Related to the fear issue are questions about, "What will happen to me?", or "What will I have to give up?" When people report to a new job, they have to put forth considerable effort to establish themselves within the organization. For some, this is not an easy task and may take months or years. When people have been on the job for a while and have worked hard to establish themselves and become comfortable in their positions, they can become resistant to any kind of change they perceive (rightly or wrongly) as threatening to their position -- they do not want to go through the process again.

The question, "What do I have to give up?," may be particularly true for mid-level managers and supervisors who view TQL, with its participative and empowerment orientation, as diminishing their control, control they worked long and hard to obtain. Also, when people have been in a job for a while, they develop relationships they value. They may fear change will jeopardize those relationships.

Finally, many workers may be fearful of their jobs being eliminated by process improvement activities. In a down-sizing environment, this concern may be quite valid and demand particular attention from leadership.

◆ Large-scale change takes time

Extensive changes are required in managerial behavior and organizational policy to adopt total quality. Some of the basic concepts and principles contradict old management education and practice. This is why we call the change a transformation. Understanding these new ideas requires diligent study, thought, and time.

Cultural change within organizations is a slow process and cannot be rushed. It is difficult to change individual attitudes and just as difficult to change the attitudes of groups. Actions must be taken in small, incremental, systematic steps.

Small improvements should be recognized to keep people motivated and on track. Do not expect perfection -- it will not happen and should not be expected. Prime managerial virtues in creating change are **patience** and **persistence**.

◆ Individuals vary in their readiness for change

You have learned how people differ in the extent to which they are willing or able to change. Some people view change as a challenge and accept it readily. Others may not be able to change or simply choose not to change and may need to be reassigned or terminated.

Readiness for change is not an either or situation. It falls along a continuum, with some people more willing to change than others. Leaders need to be sensitive to these differences and act accordingly. Leaders can only acquire this necessary sensitivity when they work closely on processes with their people.

To effect cultural change, leaders must become aware of the difficulties involved. If leaders fail to cope with these difficulties, people probably will resist the change. Resistance wastes many people's efforts and provides no value to the organization. Getting an organization to change its culture requires assuming new leadership roles.

How Change Occurs

- ◆ Knowledge is required
- ◆ Attitudes must align with new values
- ◆ Behaviors need to change
- ◆ People have to “buy into” the change
- ◆ Leadership facilitates change

How Change Occurs

Change is inevitable in organizations. There are changes in leaders, missions, procedures, people, external requirements, and so on. What we are looking for is **planned change** -- change that has an **aim** and is **systematic**. The process of change begins with a leader's directive and is followed by **learning** new concepts that lead to changing **attitudes** and **behaviors**.

◆ Knowledge is required

Once leaders make the decision to change, the first step begins with knowledge. Employees at all levels in the organization need to learn about the change, why it is important for change, how it will affect them, and what they need to do. While education and training are vital to create meaningful change in organizations, knowledge is not enough. Leaders must take many actions besides providing knowledge through training and education.

A word of caution: Because providing training is easier than some other aspects of change, leaders often provide massive amounts of "education and training" to their employees and very little else.

◆ Attitudes must align with new values

Beliefs and **values** are elements of attitudes, and they are thought to precede attitude formation. Changing from a traditional organization to a total quality organization will require changes in beliefs and values. For example, the **belief** held by a leader that people are basically lazy and require a high degree of control is incompatible with a total quality philosophy.

Psychologists define "attitude" as a predisposition to respond to events in the environment in either a positive or negative way. Some attitudes are developed early in life and are learned from family, friends, and the cultural environment. Most attitudes, however, are developed gradually through personal experience and the observations of others. It is important for managers to understand that attitudes are **learned** and can be changed through education and experience.

Attitudes are more likely to change when employees learn the **inherent value** of the change and see it as compatible with their own beliefs and values. This assumption suggests that when managers are aware of differences in people and can match the interests of an employee with the nature of the work, changes in attitudes about the new management philosophy are more likely to follow.

◆ Behaviors need to change

It is important to understand what **energizes change**. Most psychologists agree that reward systems are necessary for implementing **change**.

Extrinsic rewards are more closely associated with behavioral change -- behavior can be observed and rewarded. Intrinsic rewards, on the other hand, are more closely associated with attitude change. While attitudes can be measured (estimated) through interviews and surveys, they are not always observed directly. Changes in attitudes resulting from management interventions are more difficult to assess. In short, behaviors are easier to change than attitudes.

A word of caution: Reward systems must not create incentives to suboptimize organizational behavior. They should create systems that foster **win-win** situations.

★ **Additional Information:** What needs to change first to create organizational change: attitudes or behavior? On the "attitudes first" side, the assumption has been you cannot change behavior until you change attitudes. This position is consistent with the view that beliefs and values, which form attitudes, influence behavior.

But, many people think one of the most effective ways of changing attitudes is to begin with changes in related behaviors. While attitudes do influence behavior, it is important to emphasize behavior also influences attitudes. So from an total quality implementation perspective, it may be more practical to start with changing behaviors and to continuously work on attitudes for the long term.

◆ **People have to "buy into" the change**

It is possible to get people to behave in a certain way without changing their attitudes. However, enduring change will not occur unless members of the organization "buy into" the change by **changing their attitudes** .

While behavior change is an important initial step, for true cultural change to take effect over the long term, behavior must be consistent with the beliefs, values, and attitudes held by organizational members. As long as organizational members can see the inherent **value** of the change, they are much more likely to accept and identify with what the organization is trying to do. It follows that, in addition to the wise use of extrinsic rewards to change behaviors, leaders will also have to persuade their subordinates that total quality is the "right thing to do."

◆ **Leadership facilitates change**

Edgar Schein (1990) writes, ". . . culture origins and dynamics can sometimes be observed in the power centers where elements of the culture are created and changed by founders, leaders, and powerful managers". Two key points from this statement are: (1) cultures originate with leadership, and (2) changes are most effectively brought about by powerful managers.

Planned cultural change requires strong leadership but not "strong armed" leadership. Long-term cultural change requires changing beliefs, values, attitudes, and behaviors. These kinds of changes cannot be forced. Strength of leadership in developing a total quality organization relates more to showing a strong commitment to change reinforced by personal example (behavior). We need leaders who are positive role models of desired behaviors.

Changing Organizational Culture

◆ Definition of culture:

“The pattern of assumptions in the organization that has been useful in coping with the internal and external environment, which is taught to new members as the ‘correct’ way to perceive, think, and feel about their work.”

(Schein 1990)

◆ Cultural changes that will be required

Changing Organizational Culture

If a total quality approach to management is to thrive, it will require a change in organizational culture. "Transformation is required to move out of the present state, metamorphosis, not mere patchwork of the present system of management" (Deming 1990).

◆ Definition of culture (after Schein 1990):

The pattern of assumptions in the organization that has been useful in coping with the internal and external environment, which is taught to new members as the 'correct' way to perceive, think, and feel about their work.

Some psychologists see **organizational culture** as a reflection of an organization's "personality" (Bowditch & Buono, 1990). Like human personality, organizational culture tends to be unique to a particular organization and concerned with custom, tradition, and shared beliefs about organizational life. The culture of an organization is a powerful determinant of individual and team behavior. It affects virtually all aspects of organizational life -- from the ways people interact with each other to how they perform their work.

As we have learned from previous lessons, a total quality approach to management and leadership requires changes in current beliefs, assumptions, values, norms and roles -- a change in culture is required.

★ **Additional Information:** The following definition of culture, as presented in the viewgraph, is a re-phrasing of Schein's (1990) definition. The full definition is: ". . .

- (a) A pattern of basic assumptions,
- (b) Invented, discovered, or developed by a given group,
- (c) As it learns to cope with its problems of external adaptation and internal integration,
- (d) That has worked well enough to be considered valid and, therefore,
- (e) Is to be taught to new members as the
- (f) Correct way to perceive, think and feel in relation to those problems."

★ **Additional Information:** Another definition of culture is: "Subjective organizational culture refers to the shared patterns of beliefs, assumptions and expectations held by organizational members, and the groups' characteristic way of perceiving the organization's environment and its values, norms, and roles as they exist outside the individual." (Bowditch & Buono, 1990)

★ **Additional Information:** Regarding the **magnitude** of change required for the transformation, Kaoru Ishikawa, the father of Total Quality Control in Japan, calls for a "Thought revolution in management" (Ishikawa, 1985). William Conway, President of Conway Quality, talks about a "Paradigm shift in the way we manage." (Conway, 1991)

◆ Cultural changes that will be required

 **Instructor Direction:** The following items represent a partial list of some of the attributes one would expect to require changing as an organization moves toward "total quality." Some items have already been covered. Others will be covered later. The list is not exhaustive. You may want to add some items of your own. You might also ask the students for more items. Review this list **briefly** to emphasize the magnitude of organizational transformation.

What needs to change in organizations? The following list includes issues we have previously discussed and others yet to be discussed. The items are written for managers but many apply to all members of an organization, especially those working in teams.

- Understand what quality is and how to achieve it.
- Maintain a customer focus (external and internal).
- Manage organizations as extended systems.
- Understand variation and its relationship to quality.
- Strive for continual improvement and innovation of processes.
- Make decisions based on data instead of hunches.
- Understand the similarities and differences in people.
- Effectively manage teams.
- Develop and maintain clear and open channels of communication.
- Change relationships (e.g., improve cooperation among managers in different functions, between managers and subordinates, between managers and customers and suppliers).
- Change or reorient perceptions (of both managers and workers) about their jobs (e.g., customer focus, internal customer-supplier relationships, continual improvement in processes, products and services).
- Create a culture based on trust instead of fear.
- Provide leadership for change.

This list is not exhaustive, but it provides some ideas about what we mean by change in organizational culture. Once we know **what** needs to change, the next step is to decide **how** to change.

Now that we have discussed the importance of what changes will be required and how change happens, let's look at who, in the organization, is essential to implement this total quality approach.

Building the “Critical Mass”

“Those people within an organization who possess sufficient knowledge, power, and leadership to initiate and sustain a cultural transformation”

(Dockstater, Shumate, & Doherty, 1988)

Building the “Critical Mass”

The critical mass is defined as (Dockstader, Shumate, and Doherty, 1988):

Those people within an organization who possess sufficient knowledge, power, and leadership to initiate and sustain a cultural transformation .

The change to a total quality leadership approach cannot be done by top leaders alone. They must develop a **critical mass** in the organization -- people who understand the approach and have the power to make the required change. You have been identified as members of the critical mass. So, you need to develop your knowledge about quality concepts because you will be participating in implementing the total quality leadership approach in your organization.

Eventually, enough people will be involved in improving an organization's processes and seeing the benefits of this approach to continue the initiative after the current leader leaves.

The critical mass is the catalyst required to sustain the change. Elements of the critical mass must include **leaders** with the vision to show the way, and enough **people** who have knowledge and power. **These people must lead the change effort.**

★ **Additional Information:** In the *Senior Leaders Seminar* (SLS), the commanding officers are told that one of their jobs is to establish a critical mass. This is a leadership responsibility.

An early goal of education in TQL was to train 15 percent of the people in the DON (the critical mass). This 15 percent figure was never intended to be an absolute number of people. It is estimated it takes roughly 15 percent of a work force to represent a critical mass. With about 1,000,000 Navy, Marine, Civil Service, and Reserve personnel, that meant about 150,000 people would be needed to constitute the DON's critical mass. (ADM Fetterman, TQLeader, 1992)

Working in Teams

- ◆ **Fulfills the need to be part of a group**
- ◆ **Facilitates problem-solving and process improvement**
 - Synergy, expertise, accessibility to information
- ◆ **Fosters a sense of ownership**
- ◆ **Improves work motivation and performance**
- ◆ **Helps avoid suboptimization**

Working in Teams

Teams are essential in an organization that uses the total quality approach to carry out process improvement. There are some tasks that can be handled effectively and efficiently by one person, but many times work can be done more appropriately in teams. Most processes involve a variety of tasks, and people need to work in teams to be able to see the relationship of tasks within processes.

Many successful organizations today use teams at all levels and across all functions. Considering the time spent in team meetings, particularly in a total quality organization, it is important to understand why teams are important, how we can work effectively and efficiently on team tasks, and how we can work with other teams across traditional functional lines.

The DON's *Team Skills and Concepts* course addresses the activities of team building and team functioning. (**Team building** focuses on the process of becoming an effective team. **Team functioning** focuses on doing a task efficiently as a team.)

◆ **Fulfills the need to be part of a group**

One reason teams are effective in the workplace is that working in teams can provide members with a sense of belonging and self-esteem (Miller and Howard, 1991). Remember that people are similar in that they need to be part of a group in the work place.

◆ Facilitates problem-solving and process improvement

When organized and managed properly, teams are often the best means for solving work problems and improving work processes. Three possible reasons for this include synergy, expertise, and accessibility to information.

- **Synergy**

Synergy is the action of two or more people to achieve an effect of which each of them is individually incapable. In a team setting, we have different people working on the same problem or process. People have different perspectives based on their experiences, their roles, and where they influence the process. An idea expressed by one person may spark an idea in another which may, in turn, spark an idea in someone else, and so on. Synergy is particularly useful in situations requiring creativity and innovation.

- **Expertise**

Teams composed of members who are responsible for a particular process are the world's greatest **experts** for that process (Miller and Howard, 1991). No one knows the nature and intricacies of the work better than the team members, acting as a team. But, knowledge of the work is not enough to result in action. To act, the team must also have: (a) a **goal** of process improvement, (b) **knowledge and skills** required to make improvements, and (c) **motivation** to work together and accomplish the task.

Without these three essential criteria, the team will not be able to make efficient and effective changes.

- **Accessibility to information**

The knowledge of many individuals in a group is greater than the knowledge of the same individuals by themselves because more information is immediately available. This is particularly true when working on processes that cross organizational boundaries where members have different responsibilities for the process. Working as a team increases efficiency as the required information is more likely to be present.

◆ **Fosters a sense of ownership**

Working together to solve problems and improve processes, particularly those that affect a member's own work, can produce a greater sense of ownership. Team decisions are generally the result of a **consensus** which can also have a similar effect. A sense of ownership increases the likelihood that team members will invest more effort (motivation) in achieving desired outcomes.

◆ **Improves work motivation and performance**

The team process often improves performance. Miller asserts the most critical component of competitive advantage in today's organizations is the result of how teams work together (Miller and Howard, 1991). People working together on a common problem have a motivating effect on each other as they work together to solve common problems. As mentioned in the preceding paragraph, a sense of ownership can also increase motivation.

◆ **Helps avoid suboptimization**

Working in teams can promote optimization of the system. Quality Management Board members who represent different functions come together to work on **common** problems. Cooperation is required in this setting, and suboptimization is less likely to occur because the views of members from all functions are expressed, explained, and coordinated. Also, upward and downward links facilitate communication of team activities between lower-level teams and those with the broader systems view. This further helps to avoid suboptimization.

Managers must not take working in teams for granted. Learning to work together effectively and efficiently isn't something that develops naturally (Scholtes, 1988). All team leaders and team members should receive training in team skills.

Team Issues and Considerations

- ◆ Management of participation
- ◆ Employee empowerment
- ◆ Team proliferation
- ◆ Cooperation and competition

Team Issues and Considerations

◆ Management of participation

Management of participation is different from “participative management” in that managing participation requires managers to keep a degree of involvement with teams. Managers do not simply set up teams and authorize them to make decisions. Managing participation means that managers maintain both oversight and responsibility for teams on a continuing basis.

Managing participation requires:

- Determining when a team is needed (chartering a team)
- Identifying the organizational boundaries of the problem or process of interest
- Selecting the team members
- Defining the product or aim
- Providing resources
- Monitoring progress
- Taking action on team recommendations

The concept of participation in the context of TQL follows the idea that, "Participation means involvement in a team with responsibility for a joint product" (Kanter, 1983).

Involvement is a key word and is generally perceived as allowing employees to become involved in improving their own work. In a total quality environment, management must also be involved -- it is the manager's responsibility to **manage participation** .

Participative management refers to the participation of non-managerial employees in an organization's problem-solving and decision-making processes. Participative management has become increasingly popular during the last two decades (Bowditch and Buono, 1990). This approach involves individual participation such as management by objective (M.B.O., as originally conceived by Peter Drucker [1954]). Quality circles are an example of participative management and have become another way of saying a "team approach."

◆ **Employee empowerment**

It is important to understand the distinction between employee **involvement** and employee **empowerment** . Quality circles, as they are typically used in this country, provide a good example of employee involvement. As circle participants, employees are usually involved in decision-making about things that affect their work, but they **do not have the authority** to make changes. Recommendations for changes must be approved by higher authority. But when a team is empowered, the team has the right to make decisions without approval from above. The power to make changes is given to the team by way of their charter. The charter defines the level of empowerment, e.g., what changes the team is permitted to make. The rationale for empowerment is the team working on a process has the most knowledge of the process and is in the best position to take action.

The DON uses the quality improvement team structure to reduce suboptimization by using cross-functional teams (QMBs) to assess effects across the entire process, and keep management informed using the "linking pins." The ideal situation is to move toward employee empowerment by designing a team approach that **involves management** .

◆ Team proliferation

Team proliferation refers to a situation in which organizations form an excessive number of teams as their primary or sole method of “implementing total quality.” Such organizations are forming teams for the wrong reasons. Some causes of team proliferation are:

- **Management delegates responsibility**

Managers form teams to address problems they don't know how to solve, or they do not want to deal with. It's a win-win situation for them. If the team doesn't come up with a satisfactory solution, the manager doesn't necessarily look bad (the manager “wins”). If the team does come up with a solution, the manager can show the boss the problem was solved and TQL is alive and well in their organization (the manager “wins” again).

- **Serves as measure of success**

Managers create a **great number of teams** to show their bosses they are actively committed to TQL.

- **Spontaneous generation**

Lower-level supervisors and subordinates who are enthusiastic about TQL take it upon themselves to form teams that address problems in their areas. This is particularly true when they see upper management “dragging its heels.”

Not all problems or improvement efforts require a team approach. How does a leader figure out when a team approach is or isn't appropriate? In general, the formation of a team **may be appropriate** when:

- knowledgeable people can contribute to a decision.
- the team can gain new information or experience.
- the problem or process crosses department or functional boundaries (requiring cross-functional teams).

In general, the formation of a team **may not be appropriate** when:

- one person has the knowledge/data to make the decision.
- the manager already knows the “right” answer.
- it is a “short fuse” situation and little or no time is available for discussions.

◆ Cooperation and competition

Working in a team with an agreed-upon goal decreases the likelihood of competition among the members and increases the likelihood of success. A central theme of Deming's management approach focuses on the importance of cooperation and the negative effects of competition.

★ **Additional Information:** ". . . the long-term consequences of continued competition between groups in a particular organization can be more harmful than beneficial" (Schein, 1980).

Lesson Summary

- ◆ Psychology contributes to our understanding of people -- both similarities and differences
- ◆ Total Quality Leadership requires a cultural transformation
- ◆ Top leaders must develop a critical mass in the organization to sustain the movement toward quality
- ◆ Process improvement requires a team-based management approach

Video: “Competition, Cooperation, and the Individual”

 **Video:** Show the video, Competition, Cooperation and the Individual. Volume XV Deming Library.

Time: 25 minutes

This videotape contains a conversation with Dr. Deming discussing what happens when we **compete** against one another in the work place and what happens when we **cooperate** with one another. Each situation results in creating totally different working environments for the organization.

 **Discussion Question:**

1. "Do you think people might lose a part of themselves -- their self-respect, their personalities, their individual initiative -- if called on to cooperate? Are you fearful in this respect?"

Lesson Summary

◆ **Psychology contributes to our understanding of people -- both similarities and differences**

You have learned that human psychology is one of the four parts of the System of Profound Knowledge. You know that people cannot be treated as **interchangeable parts**. Although there are similarities in basic needs for all people (survival, security, and self-esteem), there are also significant differences in amounts of knowledge, levels of ability, degrees of interest in the work, preferences for teamwork, and reactions to change. Leaders need to be sensitive to these needs to promote system optimization.

◆ **Total Quality Leadership requires a cultural transformation**

The ideal organizational culture is one which releases the creative and innovative potential of people. This requires reducing fear within the organization and increasing trust. Leaders at all levels need to conduct self-assessments of their day-to-day activities as they relate to these considerations, and ask the question, "Does this action foster fear or develop trust?"

Cultural transformation requires changes in many areas, including knowledge, attitudes, behaviors, reward systems, organizational structure, communication, and leadership.

◆ **Top leaders must develop a critical mass in the organization to sustain the movement toward quality**

Since organizational change cannot be achieved by top leadership alone, a critical mass must be formed to begin and sustain the organizational transformation. The critical mass is the people in the organization who understand how to focus on quality and who have enough knowledge, power, and leadership to begin and sustain a cultural change.

◆ **Process improvement requires a team-based management approach**

While individuals can do some work alone, teams help to facilitate process improvement, foster ownership and synergy, increase motivation, and avoid suboptimization.

Working in teams with the owners of a particular process enhances improvement. Teamwork fosters cooperation across organizational boundaries and allows an organization to adapt quicker to rapidly changing environmental demands.

Instructions for Conducting “The Broken Squares Exercise”

Module 3-2 Annex

Exercise Introduction

Ensure all exercise materials are on-hand. Before you start the exercise, lead a brief discussion of the following question to get the students thinking about group problem solving and cooperation.

☺ Discussion Question:

What is essential for successful group cooperation?

- *Each individual must understand the total problem*
- *Each individual should understand how they can contribute toward solving the problem*
- *Each individual should be aware of the potential contributions of themselves as individuals*
- *There is a need to recognize the problems of the other individuals, in order to aid them in making their maximum contributions*

We are now going to do an exercise to test your group cooperation skills. Everyone needs to completely clear the tables.

👉 **Instructor Directions:** Divide the class into groups of six; five participants and one observer. Student attendance should be 24 so you will have four groups. Ask if anyone has done this before, and if so, make them one of the observers. Ask for a volunteer from each group to be an observer. Have one instructor take the observers to a separate area and go over the **Observer Instructions** while the other instructor hands out the puzzle envelopes and briefs the **Participants Instructions** .

👉 **Instructor Directions for Observers:** Hand out copies of the **Observer Instructions** to each observer and tell them they can take notes on it if they wish. Discuss the directions with them and answer any questions raised.

Observer Instructions

Your job is part observer and part judge. Make sure all participants observe the following rules:

1. No talking, pointing, or any other kind of communicating among the five participants in your group.
2. Participants may give pieces to other participants but may not take pieces from other members.
3. Participants may not throw their pieces into the center for others to take, they have to give the pieces directly to one individual.
4. It is permissible for a member to give away all the pieces to their puzzle, even if they already form a square.
5. Observers will strictly enforce the rules.

As an observer watch for the following:

- Who gives pieces away
- Anyone who finishes early and drops out
- Who struggles on but gives nothing away
- How many are actively involved
- Signs of frustration / anxiety
- Violation of rules
- Any turning points

 **Instructor Directions for Participants:**

Distribute the packets containing the five envelopes to each group. Do not have them open the packet yet. Read the following instructions to the group:

“In this packet there are five envelopes, each containing pieces of cardboard for forming squares. When I give the signal to begin, someone pass out the small envelopes to each member and open them. The tasking of your group is to form five squares of equal size. The task will not be completed until each individual has before them a perfect square that measures 6" by 6". The following rules apply:

- 1. No talking, pointing, or any other kind of communicating among the five participants in your group.*
- 2. Participants may give pieces to others but may **not** take pieces from other members.*
- 3. Participants may not throw their pieces into the center for others to take, they have to give the pieces directly to an individual.*
- 4. It is permissible for a member to give away all the pieces to their puzzle, even if they already form a square.*
- 5. Observers will strictly enforce the rules.*

Note: *Letters on the puzzles are irrelevant and may be turned over if desired.*

Are there any questions?”

Answer any questions raised. Signal to begin and allow approximately 15 minutes for the exercise.

Monitor the groups during the exercise. Ensure the rules are being enforced. Help groups having problems by identifying correctly completed puzzles after about 10 minutes. When all the groups have completed the task, engage the groups in a discussion of the exercise. Discussion should focus on feelings more than merely relating experiences and general observations. Pick a group to start with and ask the observers for their feedback. Refer them to the instruction sheet. Ask for other comments from the participants. Have each group debrief.

👉 Instructor Directions:

Once feedback has been completed, have the students return all the pieces to their proper envelop as indicated by the letters on each one. Collect all puzzle packets and return the class to normal. Discuss the following exercise objectives:

- **Understand certain aspects of cooperation in solving a group problem**
- **Recognize their own behaviors that may contribute toward or obstruct the solving of a group problem**
- **Appreciate the importance of open communication (verbal and nonverbal)**
- **Understand the frustration felt by a worker with a solution they cannot communicate to management**
- **Recognize the differences in individual abilities to deal with the unstructured and abstract**

This exercise is adapted from *Communication Patterns in Task-oriented Groups*, by Alex Bavelas.