

OUTDOOR TRAINING AS A PART OF A CORPORATE
QUALITY IMPROVEMENT PROGRAM

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1971

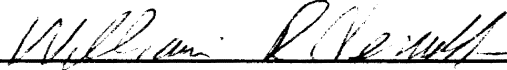
Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
MASTER OF SCIENCE
May, 1993

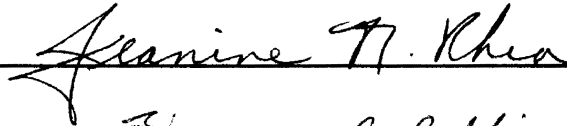
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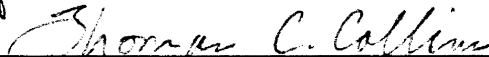
Thesis Approval:



Thesis Adviser







Dean of the Graduate College

ACKNOWLEDGEMENTS

I'd like to thank the many individuals who made this thesis a reality. First, I want to thank my initial Advisor, Dr. John Baird, who got me started on my journey towards my Master's Degree. I only regret that he retired before my journey was completed.

Secondly, my thanks to Dr. Gary Oakley for agreeing to be my Thesis Advisor and Committee Chairperson. His role as an instructor and the guidance he provided in completing this study were invaluable. Thanks, too, to my other committee members, Dr. William Venable and Dr. Jeanine Rhea. As a frequent student in Dr. Venable's classes, I learned the skills needed to identify and analyze human resource development issues. I count Dr. Jeanine Rhea as a special friend who provided needed support both for this thesis and when I first became a corporate trainer.

Dr. Michael Barnes deserves my heartfelt thanks for the assistance he provided me in research techniques. He continued to be there for me, even after the research class was completed, to answer my questions about experimental design and statistical testing.

Thanks, too, to Mary Todd, Sam Sikes, Leslie Huerter, and Dave Hekel, who were part of the team that developed the Quality Quest Teamwork module used in this study.

Thank you, Mom (Marge Van Zante), and Evelyn Hargrave, my good friend, for proofreading my manuscript and catching the many "typographical" errors I missed.

Decidedly, my husband, Rod Westerlund, earned the greatest thanks of all. He provided invaluable help during my struggles to identify a research project, clarify my problem statement and hypothesis, and analyze my data. This thesis would not have had the quality it contains without his support.

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CHAPTER I

INTRODUCTION

In today's competitive marketplace, achieving high levels of quality has become critical for corporate success. As consumers become increasingly sophisticated, they become more demanding about the quality of products and services they receive. For a corporation to thrive or even survive in today's competitive environment, it must meet or exceed customers' expectations.

A quality improvement emphasis affects both work processes and people. Successful corporate quality programs result in improved productivity, reduced operating costs, increased market shares, and improved employee morale (Oberle, 1990; GAO, 1991). As stated by Deming (Oberle, p. 47): "Improve quality [and] you automatically improve productivity. You capture the market with lower price and better quality. You stay in business and you provide jobs. It's so simple."

Many companies reported production improvement as a result of implementing quality improvement processes (Dodson, 1991). Two examples were General Mills and British Airways. General Mills described the production in plants that used employee work teams as part of their quality improvement process to be 40 percent higher than those plants who did not use them. British Airways's employee involvement teams improved customer service by streamlining terminal operations, resulting in a volume increase of 10 percent. They also experienced increases in profits and improved reputation.

Although there has been no one approach used by corporations to implement a successful quality improvement program, there are common features found in many corporations'

quality improvement activities (GAO, 1991, p. 4):

- * corporate attention is focused on meeting customer requirements;
- * senior management leads the way in building quality values into company operations;
- * all employees are suitably trained, empowered, and involved in efforts to continuously improve quality and reduce costs; and
- * systematic processes are integrated throughout the organization to foster continuous improvement.

These findings were obtained by reviewing the practices of 20 companies that were among the highest-scoring applications in 1988 and 1989 for the Malcolm Baldrige National Quality Award.

In order to achieve a continuous cycle of quality improvement in a corporation, employees must be provided the necessary tools, skills, and knowledge. Employee training was viewed as vital to providing the skills needed for effective participation in a corporate quality improvement program. A curriculum including quality awareness, problem solving and team building skills, facilitation, process management, and measurement was common to many quality improvement programs (Conference Board, 1991; GAO, 1991; Dodson, 1991; Holpp, 1989). The training method used to teach quality improvement principles and techniques needs to be effective to produce desired improvements. Training should be effective, timely, application-oriented, and address specific needs (Huszczko, 1990; Conference Board, 1991; Ferketish and Hayden, 1992). It should also provide employees an awareness of quality principles and goals.

Corporations sought to improve quality while maximizing training dollars and training impact by structuring curriculum appropriately. Outdoor experiential training was a method offered by more than 100 training organizations to meet this corporate need (Wagner,

Baldwin, and Roland, 1991). Outdoor experiential training has been described as a method that will enhance, stimulate, and speed up the process of organizational change and team building because it operates on the physical, emotional, and intellectual levels (Petrini, 1990; Tarullo, 1992). Outdoor experiential training should be effective for team building training within a corporate quality improvement program because it not only strengthens team building skills, it also increases the commitment to the learning process, and thus increases the positive impact of training.

Team building has been identified as important to the success of a corporate quality improvement program (Conference Board, 1991; GAO, 1991; Dodson, 1991; Holpp, 1989). According to recent research, outdoor experiential training is an accepted method for team building training (Petrini, 1990; Tarullo, 1992; Starcevich and Stowell, 1990).

Statement of the Problem

The problem investigated in this study was that virtually no rigorous, carefully conducted evaluation of outdoor experiential training effectiveness for team building has been conducted (Buller, Cragun, and McEvoy, 1991). Although outdoor experiential training can be used for team building, as well as other quality-related training objectives, no evaluations of its effectiveness as part of a quality improvement program have been conducted.

Purpose

The purpose of this study was to measure the effectiveness of outdoor experiential training for the team building component of a corporate quality improvement program. Effectiveness of this training method was to be determined by improved scores in the Team Effectiveness Questionnaire and by an improvement in the corporation's key performance indicator, in this case, number of "take-downs," or instances where a patient must be

physically restrained.

Hypothesis

Team effectiveness is to be determined by comparing pre- and posttest scores on the Team Effectiveness Questionnaire and by comparing a key performance indicator identified by the corporation prior to the training event. The null hypothesis selected for this study was that there would be no statistically significant difference in scores between a team that participated in outdoor experiential training for team building and a team that did not participate. There also would be no substantive change (one-half standard deviation or more) in scores following the training event.

Definition of Terms

Continuous Improvement: An emphasis on continuing systematic improvements in all systems of an organization (Sparks and Dorris, 1990).

DISC: A personality profile instrument that categorizes individuals into four primary styles called Dominant, Influencing, Steady, Cautious.

Effectiveness: Judgements made regarding the performance of individuals, groups, and organizations. The criteria for organizational effectiveness include total production, decline in production, financial loss due to errors, morale, and anxiety (Pennings, 1976). To be perceived as effective, actual performance must be close to desired performance. The closer actual performance is to desired performance, the more effective it is judged to be (Gibson, Ivancevich, and Donnelly, 1988).

Experiential Learning: The learning which occurs when experience is transformed into knowledge (Kolb, 1984).

Just-in-Time Training: Timing the training experience so that trainees will be able to immediately apply their new knowledge and skills after training takes place.

Outdoor Experiential Training: Individual and group physical activities conducted out-of-doors that utilize metaphors to tie the learning activity back to the work place.

Quality Improvement Process: Ongoing activities striving for improved quality that are never finished and require constant attention (Crosby, 1984).

Quality Improvement Programs: A formalized structure designed to provide the tools necessary to achieve improved quality. Examples include training and recognition programs designed to promote improved quality (Crosby, 1984).

Quality Quest: An outdoor-based experiential training program.

Take-downs: The restraint action imposed by a staff person by physically taking the adolescent down to the floor when an adolescent under psychiatric treatment loses control.

Team: A small group of individuals who have complementary skills and are committed to a shared goal (Katzenbach and Smith, 1993). The majority of teams have less than ten members and have a common purpose, performance goals, and approach to meeting those goals.

Assumptions

1. It was assumed that all members of both the experimental and control groups received comparable, prior, in-house quality improvement training, including team building skills.

2. It was assumed that staff members of a wing of a psychiatric health care facility would be classified as a team even though they worked different shifts. This assumption was based on the fact that all shifts provided care to the same group of patients in the same facility and because the actions of one shift affected other shifts.

3. It was assumed that the effectiveness of a team could be measured based on five dimensions; e.g., direction, leadership, processes, structure/resources, and atmosphere (Starcevich and Stowell, 1990).

4. It was further assumed that five dimensions of an effective team were universal and not affected by the industry or business in which the team operated.

5. It was assumed that the Team Effectiveness Questionnaire was a reliable and valid instrument to measure the effectiveness of a team based on these same five dimensions.

6. It was assumed that the effectiveness of outdoor experiential training for the team building component in a corporate quality improvement program would not be dependent on which of the five team effectiveness dimensions were emphasized during the training activity.

7. It was assumed that if outdoor experiential training was effective for team building, it would be effective as part of a corporate quality improvement program.

Limitations

1. Intact work teams were needed to study team effectiveness. Accordingly, it was not possible to randomly select team members to participate in the outdoor experiential training.

2. Part of the philosophy behind a quality improvement process is to seek continuous improvement. Because of this, the curriculum used for the outdoor experiential training incorporated the flexibility to customize the training to the customer's needs. Since the team's (customer's) needs vary from group to group, it is impossible to provide the identical training program to different teams. Attempts were made to standardize the key components of the training evaluated in this study.

3. Skilled facilitators certified in outdoor experiential training methods were needed to conduct the training for safety reasons and to provide the expertise necessary to customize the training to the customer's needs.

4. The research for this study was conducted in conjunction with the Challenge Quest Corporation. Because this organization provided the certified facilitators for the research,

Challenge Quest had final say concerning the evaluation instruments used and corporation selected to participate in the study.

5. Most existing instruments available to measure team effectiveness lack validity and reliability information. The instrument selected to evaluate team effectiveness was originally created to be used as an indicator of team effectiveness. No comprehensive validation or reliability studies had been conducted on this instrument prior to this study. Preliminary test-retest reliability and content validity studies of the instrument were conducted prior to the research activity.

6. The organization selected for the study was a psychiatric health care provider. This limits the ability to generalize the results of this study to other, non-health care organizations.

Summary

Achieving high levels of quality has become increasingly critical for corporate success because it can result in improved productivity, reduced operating costs, increased market shares, and improved employee morale. Common features found in many corporate quality improvement programs included a focus on the customer, management commitment, skilled and empowered employees, and systematic processes. Appropriately structured employee training can provide employees with the tools, skills, and knowledge necessary for a continuous cycle of quality improvement.

Outdoor experiential training has been identified as an instructional method that will enhance, stimulate, and speed up the learning process because it operates on the physical, emotional, and intellectual levels. It can be designed to address a broad variety of quality related skills such as team building, interpersonal communications, and problem solving. The versatility of outdoor experiential training makes it appropriate for use in a quality improvement program.

The hypothesis studied by this research was that outdoor experiential training should be effective in corporate quality improvement programs because it not only strengthens team building skills, it also increases the commitment to the learning process, and thus increases the positive impact of learning. Team effectiveness was determined by comparing pre- and posttest scores on the Team Effectiveness Questionnaire and by comparing a key performance indicator, number of take-downs, which was identified by the corporation prior to the training event.

Organization of the Study

Chapter II presents background information about how quality is defined by corporations and typical quality improvement programs. Next discussed are the three shortcomings in quality improvement training programs: 1) an activity-centered approach instead of a results-centered approach; 2) nonstatistical thinking; and 3) inappropriate instructional methods. A review of learning theory explains why an experiential method of instruction enhances the learning experience. The attributes of outdoor experiential training is the final topic discussed.

The development of an outdoor experiential curriculum is presented in Chapter III. Included in the discussion is an explanation of how the quality improvement process training topics and learning objectives were identified and how the course structure was developed. The experimental design structure used to evaluate the effectiveness of the training program is also included. A description of the Team Effectiveness Questionnaire and its use is provided.

Results are presented in Chapter IV. Pre- and posttest scores of the treatment and control groups using the Team Effectiveness Questionnaire were compared in order to determine if a statistical difference existed. The least acceptable substantive difference in the Team Effectiveness Questionnaire scores was five (one-half standard deviation). Test

scores were also compared with a key company performance indicator to determine the effectiveness of the outdoor adventure training curriculum as part of a corporate quality improvement program.

Chapter V offers conclusions and recommendations. Conclusions include the results used to evaluate if outdoor experiential training was an effective training approach for the team building component of a corporate quality improvement program. Recommendations are offered on ways to strengthen both the training method and the validity of results obtained.

CHAPTER II

REVIEW OF LITERATURE

Understanding how corporations define quality enables us to better understand what is needed to achieve it, and thus satisfy consumer demands. Quality, as part of a total quality process, has been defined by the Conference Board's U.S. Quality Council as, "a commitment to meet customer expectations by doing the right things the right way the first time and 100 percent of the time at a cost that represents value to the customer" (1991, p. 8). Members of the Council were quality professionals whose firms were in the forefront of the total quality movement.

The Conference Board's U.S. Quality Council described quality as a mindset, a technology, and a way of managing resources that can be used to help restore the nation's economic health (Conference Board, 1988). Beginning as product quality control and quality assurance, quality has now become an organization-wide emphasis which is being applied to all business functions, services, and goods. The integration of customer needs into every phase of a business has become the quality challenge for service companies as well as manufacturers (GAO, 1991).

David T. Kearns, CEO of Xerox, believes that the definition of quality at Xerox differs from the conventional view (Galagan, 1990, p. 44):

The conventional definition of quality reminds us of such words as 'goodness' and 'luxury.' Xerox defines quality as 'conformance to customer requirements.'

The conventional performance standard of quality is some acceptable level of defects or errors. The quality performance in Xerox is products and services

that fully satisfy the requirements of our customers.

In the Central Region of Texaco, the definition of quality was summed up in a phrase: “Quality, doing the right things the right way the first time to satisfy customer requirements” (Tulsa University Seminar, 1990).

MetLife Insurance defined quality as meeting or exceeding customers’ expectations. At MetLife, quality is defined by its attributes. These are: “Quality is meeting customer expectations, quality is measurable, quality is doing things right the first time, quality is everyone’s responsibility” (Metropolitan, 1988, p. 29).

All the corporate quality definitions focus on the customer. For these organizations quality is a standard expected by the customer. These corporations believe that their services and products must meet or exceed customers’ expectations.

What type of programs have been developed to achieve quality improvement in corporations? Quality improvement programs developed by W. Edward Deming, Philip B. Crosby and Joseph M. Juran were reviewed to help answer this question.

Corporate Quality Improvement Programs

Deming’s 14-Point Quality Program

Deming (Walton, 1986) demonstrated the link between quality improvement and productivity by the success Japanese business experienced following World War II. He was the American who, in 1950, was instrumental in improving Japanese industry by introducing his 14-Point Quality Improvement Program (Walton, 1986; Gitlow and Gitlow, 1987; Oberle, 1990; Dixon and Swiler, 1990). By applying Deming’s program, Japan became an economic world power (Gitlow and Gitlow, 1987, pp. 6-7):

Dr. Deming’s philosophy is not problem solving, participative management, quality circles, automation/robotics, or any other technique that can be learned

in a one-day seminar or ingested in a two-hour reading. It is a total view and way of organizational life that must be learned, relearned, and refined over time in a supportive environment.

Deming's 14-point systems approach to the management of quality emphasized statistical process control (Walton, 1986, pp. 34-36):

Deming's 14 Points

1. Create a constancy of purpose for improvement of product and service.
2. Adopt a new philosophy.
3. Cease dependence on mass inspection.
4. End the practice of awarding business on price tag alone.
5. Improve constantly and forever the system of production and service.
6. Institute training.
7. Institute leadership.
8. Drive out fear.
9. Break down barriers between staff areas.
10. Eliminate slogans, exhortations, and targets for the workforce.
11. Eliminate numerical quotas.
12. Remove barriers to pride of workmanship.
13. Institute a vigorous program of education and retraining.
14. Take action to accomplish the transformation.

Deming felt it was important to explain to a critical mass of people why change was necessary and that the change would involve everyone (Walton, 1986). The cornerstones of Deming's system were management commitment, employee involvement, and statistical process control. Training played a key role in implementing the system.

Point 13, “institute a vigorous program of education and retraining,” was focused on by both management and the workforce. Education in new methods, including teamwork and statistical techniques, was required as part of Deming’s quality systems approach. In Deming’s opinion, for quality improvement to occur, employees needed to have an overall picture of what was being done, not just learn the specific parts of their jobs. Employees must also understand the extended process within their own organization, as well as the vendor’s and the customer’s, and where they fit into the process.

In Deming’s 14-Point Quality Improvement Program, skills-based training needs included statistical techniques, coaching, interpersonal communications, problem solving, process management, stress reduction, teamwork, and training methods. An orientation to the improvement process was also needed so that employees could understand the process (Walton, 1986; Gitlow and Gitlow, 1987).

Crosby’s “Quality is Free” Approach

Philip B. Crosby was the vice president of quality at ITT (International Telephone and Telegraph) before establishing Philip Crosby Associates in 1979 (Oberle, 1990). Crosby’s “Quality College” has been used by many corporations as a method of initiating quality improvement efforts (Dixon and Swiler, 1990).

Crosby’s (1979) basic concept was that it does not cost a company anything to have quality, it costs them not to have it. “The cost of quality is the expense of doing things wrong. It is scrap, rework, service after service, warranty, inspection, tests and similar activities made necessary by nonconformance problems” (p. 12).

Crosby’s methods are marked by popular slogans including “zero defects,” “conformance to requirements,” and “quality is free” (Oberle, 1990, p. 48). Crosby also has a 14-step model to achieve the goal of quality improvement. As taken from Dixon and Swiler, 1990, pp. 10-11:

Crosby's 14 Points for Quality Improvement

1. Make it clear that management is committed to quality.
2. Form quality improvement teams with representatives from each department.
3. Determine where current and potential quality problems lie.
4. Evaluate the cost of quality and explain its use as a management tool.
5. Raise the quality awareness and personal concern of all employees.
6. Take actions to correct problems identified through previous steps.
7. Establish an ad hoc committee for the Zero Defects Program.
8. Train supervisors to actively carry out their part of the quality improvement program.
9. Hold a "Zero Defects" day to let all employees realize there has been a change.
10. Encourage individuals to establish improvement goals for themselves and their groups.
11. Encourage employees to communicate to management the obstacles they face in attaining their improvement goals.
12. Recognize and appreciate those who participate.
13. Establish quality councils to communicate on a regular basis.
14. Do it all over again to emphasize that the quality improvement program never ends.

William B. McBee, director of quality with Armstrong World Industries, believed Crosby's program laid the groundwork for specific improvements (Oberle, 1990). "Crosby really works on the mind and focuses on behavior among people [within the organizations and among] organizations.... He's excellent at helping to adjust your attitude toward quality" (p. 49).

Crosby suggested education was one of three distinct management actions required by an organization that is experiencing quality problems. He theorizes that, to correct

problems within a troubled organization, management must have determination, initiate education, and implement a quality improvement process. Crosby's fifth step, "quality awareness," reflects commitment to a cascade approach of training. He advocated training supervisors to orient employees about the cost of nonquality because it provides visible evidence of management's concern for quality.

Employee education involves the application of the quality improvement concepts. Crosby recommended an employee quality curriculum that included quality awareness, how to measure conformance to standards, how to prevent nonconformance, and utilizing a team approach for problem solving.

Skill-based training needed to implement Crosby's 14-Step process includes problem solving, team building, coaching, interpersonal skills, and presentation skills. Concept training needs to include an orientation to the quality improvement process and an understanding of the cost of poor quality.

Juran's 10 Steps to Quality Improvement

Joseph M. Juran was the chief of the inspection control division of Western Electric before joining the faculty of New York University. In 1979, Juran established the Juran Institute to deliver his programs and develop and distribute his quality materials (Oberle, 1990). Like Deming, he is a highly respected figure in Japan for his contributions to their quality progress.

Juran (Dixon and Swiler, 1990) called for quality training for everyone from the CEO on down. Although he advocated quality circles and statistical tools, he did not believe in a tool-oriented approach. Juran's philosophy is outlined in 10 steps to quality improvement (Dixon and Swiler, 1990, p. 14):

Juran's 10 Steps to Quality Improvement

1. Build awareness of the need and opportunity for improvement.
2. Set goals for improvement.
3. Organize to reach the goals (establish a quality council, identify problems, select projects, appoint teams, designate facilitators).
4. Provide training.
5. Carry out projects to solve problems.
6. Report progress.
7. Give recognition.
8. Communicate results.
9. Keep score.
10. Maintain momentum by making annual improvement part of the regular systems and process of the company.

Juran (Dixon and Swiler, 1990) disagreed with Crosby concerning the cost of quality. He did not believe that "quality is free." Rather, he suggested that there is an optimum point for quality, beyond which further efforts increase costs beyond any value obtained.

In Juran's opinion, quality improvements were better approached on a project basis rather than an overall organizational basis. Managers were urged to examine the entire production process for problems--from material supplier to end user. Once they had identified problems in the process, they were to sort them by the Juran method of the "vital few versus the trivial many" according to potential cost savings (Oberle, 1990, p. 52). They were instructed to train their employees to do the same. To accomplish this, small groups, quality teams, or quality circles were used.

Employee training needs to prepare employees to function in small groups or quality circles to include group dynamics, interpersonal communications, teamwork, problem

solving, and brainstorming. Employees should be taught to work in groups to determine cause-and-effect relationships in the work place (Oberle, 1990).

Similarities/Differences

All three quality “gurus” recognized the importance of getting the attention and commitment of management for quality improvement initiatives to be successful. Controlling costs to impress upper management was one approach Juran used to accomplish this (Oberle, 1990). Both he and Crosby (1984) addressed the cost of quality by concentrating on preventing waste and defective products. Deming recommended management training as a method to obtain commitment from management (Gitlow and Gitlow, 1987).

Deming, Crosby, and Juran each advocated attacking the system rather than the employee (Oberle, 1990). They urged stripping down the work process--whether it be the manufacturing of a product or customer service--to find and eliminate problems that prevent quality. Identifying your customer, internal or external, and satisfying that customer’s requirements in the work process or the finished product were also important. Eliminating waste, instilling pride and teamwork, and creating an atmosphere of innovation were presented as additional components of a continuous quality improvement process (Walton, 1986; Dixon and Swiler, 1990).

Employee training was key to the successful implementation of a quality improvement process according to Deming (Walton, 1986), Crosby (1984), and Juran (Oberle, 1990). Deming’s Point 6 was “institute training” and Point 13 was “institute a vigorous program of education and retraining.” Step 8 of Crosby’s quality improvement process was to train supervisors to actively carry out their part of the quality improvement program. Training was also implied for employees on quality awareness, goal identification, and communication. Juran advocated training in his Step 4, “provide training.”

Typical Quality Improvement Program Courses

The quality “gurus” agreed training was instrumental in producing a quality product because it helped develop employee commitment to the process and provided the tools and techniques necessary to accomplish that task. Employee training was considered a necessary part of a corporation’s systematic plan to realize the benefits produced by improved quality (Holpp, 1989; Conference Board, 1991; Walton, 1986; Crosby, 1984; Oberle, 1990). U.S. Quality Council members suggested four key guidelines for companies initiating or reassessing quality training (Conference Board, 1991):

1. Set training strategy by gathering data through a top-down/bottom-up approach, utilizing performance reviews to assess employee training needs, employee surveys and exit interviews; incorporating corporate mission, goals and strategies in the process; and involving top management.
2. Initially focus the training effort on the right people--managers or skilled employees who can serve as trainers or coaches. Expand the training process using a “just-in-time” approach (so new skills and knowledge can be applied immediately after the training takes place).
3. Training should closely align with on-the-job applications. Although classroom training is the primary vehicle for training delivery, alternate approaches can also be successful.
4. Continuously improve the training process. Rework the training programs as needs change. Customize training, when appropriate.

Quality awareness, interpersonal skills, teamwork, use of statistical methods, problem solving, and group dynamics were identified as topics which must be addressed to achieve an effective corporate quality improvement program (Walton, 1986; Crosby, 1984; Oberle, 1990). The Conference Board’s U.S. Quality Council has identified six courses

generally included on a list of corporate quality training programs (1991, pp. 9-10):

Quality Awareness: Targeted at helping employees understand the basics. Total quality is defined and its relationship to the corporate culture is explored. Employees are introduced to the quality improvement process, the costs of poor quality, problem solving, teamwork, an emphasis on customer satisfaction, and so on.

Team Building: Courses stress a cooperative approach to goal setting, identifying and solving problems, project implementation and evaluation, etc. Managers learn group dynamics skills and the key principles of group leadership.

Customer Awareness Training: Helps employees and managers become attuned to demands and expectations of markets and product/service users.

Process Management Training: Helps employees and managers learn the tools and techniques to define, document and continuously improve processes while moving toward a goal of zero defects.

Quality Measurement: Courses equip employees and managers with the tools to gauge the impact of poor quality on basic processes and functions, to establish controls, develop and apply cost systems, test activities and processes against external standards (benchmarking), etc.

Statistics Training: Refines the ability of employees and managers to engage in continuous improvement of processes, design experiments, and to reach decisions based on collection and analysis of data.

The Quality Council stated that it was not always possible or even desirable to separate quality training from other company training courses. As stated by Milliken's Vice President of Quality, one of the Council members (Conference Board, 1991, p. 9), "All training is quality training, but in the traditional view some courses are more directly associated with quality."

The corporate members of the U.S. Quality Council also advocated employee training in skill development and enhancement. Nearly half of the training time reported by Council-member firms targeted training employees in job skills and job knowledge.

Employee training was viewed by quality “gurus” and corporations as vital to providing the skills needed for an effective quality improvement program. A curriculum including quality awareness, problem solving and team building skills, facilitation, process management, and measurement was common to all the programs reviewed.

Shortcomings in Quality Improvement Process Training Programs

Activity-Centered Approach Instead of a Results-Centered Approach

Activity-centered quality improvement training may focus on activities that look good, sound good, and allow the organization to feel good, but contribute little or nothing to bottom-line performance (Schaffer and Thomson, 1992). Activity-centered endeavors include employee rallies, slogans, and awareness training programs that are not tied into identified needs (Oberle, 1990; Schaffer and Thomson, 1992). Awareness training has been described as a necessary first step in a quality improvement program but one that will seldom lead to behavior changes if not linked to business strategies (Ferketich and Hayden, 1992).

In activity-centered programs, improvement efforts are mainly defined in long-term, global terms (Schaffer and Thomson, 1992). The activity-centered programs generally require management to make big investments up front before any results have been demonstrated. Management takes action because it fits into the program’s philosophy, not because it will result in measurable improvement.

Activity-centered quality improvement programs are not effective if they are not keyed to specific results. The contribution to the bottom-line performance may be little or nothing because activity-centered training may confuse the ends with the means, the process with

the outcomes (Schaffer and Thomson, 1992). Training is used as a reaction to problems, a short-term solution instead of a comprehensive plan (Gitlow and Gitlow, 1987). Activity-centered programs may not be integrated with the way business is done on a daily basis (Holpp, 1989). They often become a fad because they are not tied into the organization's long-term goals and objectives.

Results-centered training focuses on specific, measurable outcomes. It is based on needs assessment results for the entire organization (Gitlow and Gitlow, 1987). Training is needs-specific; e.g., statistical process control, team building, or problem solving (White, 1988). Even though the effort is a long-term, sustaining one, there are measurable short-term performance improvement goals (Schaffer and Thomson, 1992).

Results-centered training is tied into key company performance indicators. Five indicators of organizational effectiveness include total production, decline in production, financial loss due to errors, morale, and anxiety (Pennings, 1976). Identifying job performance and behavior objectives before a training event will help focus on the results expected and provide the organization with a measurement to determine if the training was effective. Changes in performance and behavior are best measured within months of the training event by comparing before and after key indicators (Haisten, 1990).

With results-oriented training, management takes action because it will lead towards improved, measurable results. Managerial and process innovations are introduced only as they are needed. Training is conducted at the moment of need so that the skills taught can be immediately applied. Empirical testing reveals what works. Future training is built on the lessons learned during the previous phases of the training.

Nonstatistical Thinking

The successful management of quality improvement processes requires data-based decisions, yet few senior managers have had statistical training (Holpp, 1989). In order to

interpret data accurately, management must become fluent in statistics. All employees, including management, should understand and know how to use the seven statistical tools of quality control: Pareto diagrams, cause-and-effect diagrams, histograms, control charts, scatter diagrams, graphs, and check sheets (Imai, 1986).

Statistical thinking is more than understanding graphs and diagrams. It is an approach for deducing the root causes of problems, managing people, and looking at the world (Holpp, 1989). Successful managers of the quality improvement process must master this thinking approach if they are to act as coaches, helping their employees think through and understand the root cause of problems.

Seeking the root cause(s) of a problem requires repetitively asking the question “why” (Imai, 1986; Holpp, 1989). Determining the root cause(s) is the ultimate purpose of statistical analysis. Holpp (1989, p. 99) provides an example of the “Five Whys” technique, taken from Kaizen by Masaaki Imai.

Question 1: Why did the machine stop?

Answer: Because the fuse blew due to an overload.

Question 2: Why was there an overload?

Answer: Because the bearing lubrication was inadequate.

Question 3: Why was the bearing lubrication inadequate?

Answer: Because the lubrication pump wasn't functioning right.

Question 4: Why wasn't the pump working right?

Answer: Because the pump axle was worn out.

Question 5: Why was it worn out?

Answer: Because sludge got in it.

To improve quality, it is important to correct the root of a problem, not treat the symptoms. Although the sludge might not be the final explanation for the example given above,

it is certainly more useful information than a blown fuse. To identify the root of the problem, a statistical approach to thinking is needed.

Although pareto charts, histograms, and other statistical tools can be taught as a classroom lecture, this instructional method is generally not adequate to teach statistical thinking. To be comfortable using statistics, participants need practice with realistic situations (Holpp, 1989).

Inappropriate Instruction Methods

Most quality improvement programs have been developed by engineers or by line managers and use a didactic approach (Dumas, 1989). This simple, logical, and straightforward method can be effective for presenting cognitive information. It does not, however, address the situational, personal, and value connections that should be made so people are willing to learn new skills and behaviors. Learning by doing is a more powerful way for people to learn than the traditional classroom lecture approach (Petrini, 1990). Traditional “tell-oriented” training methods should be replaced by experiential methods (Cohen, 1991).

As defined by May and Kruger (1988), experiential learning refers to “individual and group interactions through which principles, concepts and techniques evolve and become self-evident. The experience becomes the learning; the learning becomes the experience” (p. 61). Experiential learning seeks to integrate theory and practice, and to relate the learning to the real work world. Because it is a participative style of learning, experiential activities allow adults to interact, share their learning experiences, and provide examples from a working environment (Korey and Bogorya, 1985).

A training objective of increased knowledge, changed attitudes, and new behaviors requires a methodology that addresses all three areas (Lawrie, 1988). Lectures, written material, demonstrations, and programmed instruction may be used to convey new information to the learner. Insight learning techniques such as role playing and case analyses

may be used to address attitudinal changes. Practice of the new, desired behaviors is necessary to achieve new behaviors. To create the change needed for a successful quality improvement program, a cognitive component, an attitudinal component, and a behavioral component must be built into the training program. Experiential instruction is one method that incorporates all three components.

To have a positive impact on the organization, the skills and concepts learned during the training process must be transferable back to the work place. To help accomplish this, training should be based in sound learning theory.

Learning Theory

According to Kolb (1984), adult learning consists of a four-stage cycle that involves four adaptive learning modes: concrete experience, reflective observation, abstract conceptualization, and active experimentation. To produce the highest level of learning, the four learning modes should be combined. Outdoor experiential training is a learning approach that incorporates the four adaptive learning modes.

In outdoor experiential activities, the observation may happen at the beginning, during the middle, or at the end of the activity. The learner can watch other group members attempt to accomplish a task. Those individuals whose dominant style is reflective observation will generally delay their participation until they have had a chance to observe.

Problem solving experiential activities particularly lend themselves to developing theories or hypotheses. Although a goal is defined, the method is left up to the learner (Wagner, Baldwin, and Roland, 1991; Gass, Goldman, and Priest, 1992). Most outdoor experiential activities cannot be solved by random attempts. Most require strategy and the ability to conceptualize.

Active experimentation occurs in an outdoor experiential activity when the adult learner uses different approaches in his/her attempt to accomplish a task. Concrete experience

occurs because this type of training allows the participant to take part in new endeavors and experience new feelings. The accomplishment of a challenging task translates into the feelings of success (Gall, 1987).

Adults learn best when they feel the need to learn and have a sense of responsibility for what, why, and how they learn (Brookfield, 1986). The use of experience as a resource in learning allows the adult to perceive meaningful relationships in his/her own past experiences. May (1988) believed this expanding self-awareness is one advantage of experiential learning. "The major purposes of experiential learning are to experience self-awareness for self-management, and to acquire the ability to make distinctions and commitment" (p. 61).

Experiential learning allows for self-direction. This, in turn, builds a strong sense of learner ownership and commitment. Boyer and Pond (1987) explained that employees are generally committed to the things they work hardest for. A strong sense of ownership and commitment results from the individual involvement in the problem-identification, problem-solving, and decision-making process. The effort involved in experiential learning, particularly physical experiential learning, increases the commitment to the learning, and thus the results obtained.

Value is added to the experiential learning process when it is conducted in a group setting. Brookfield (1986) recognized that groups can be powerful motivators and reinforcers of learning. Vigorous debates and the exploration of vividly contrasting positions expand the learner's vision and understanding of the learning activity. Discussions encourage adults to undertake intellectually challenging and personally precarious ventures in a non-threatening situation.

Adults generally learn best in a non-threatening atmosphere. For success, the group needs to be supportive and non-judgmental during experimentation. If the peer learning group excludes or silences deviant opinions, the learning processes are diminished.

Ground rules need to be established for debriefing following the training activity to be effective (Gass, Goldman, and Priest, 1992). The group should agree to allow members to not disclose feelings, if desired; protect confidentiality for those who do share; to speak only for oneself and not others; to value feedback from peers; and avoid “putdown” statements. A supportive orientation encourages experimentation with ideas, opinions, alternative interpretations, and an opportunity to test theories with others.

To have a positive impact on the organization, the skills and concepts learned during the training process must be transferable back to the work place. Structuring outdoor experiential training around a learning model facilitates this transfer. D.A. Whetten and K.S. Cameron proposed a five-stage learning model (Buller, Cragun, and McEvoy, 1991, p. 58):

Skill pre-assessment examines participants’ current level of knowledge and skill competence.

Skill learning teaches correct principles and presents the rationale for specific behavioral guidelines.

Skill analysis provides examples of appropriate and inappropriate skill performance and analyzes behavioral guidelines and why they work.

Skill practice gives trainees the chance to practice the behavioral guidelines and adapt them to their personal styles, while receiving feedback and support for trying new behaviors.

Skill application helps transfer learning to real-life situations and fosters ongoing personal development.

Skill pre-assessment includes individual and organizational needs analyses. Besides determining the participants’ current skills and knowledge levels, it should identify the organization’s strategic quality improvement goals and priorities. Customizing the training

activity around crucial business challenges within the organization provides a result-oriented focus (Schaffer and Thomson, 1992) and a necessary connection between the training activity and the work place (Gass, Goldman, and Priest, 1992). This encourages immediate skill application which increases the participant's commitment to learn.

Skill learning introduces the basic concepts and skills identified by the needs analysis (Buller, Cragun, and McEvoy, 1991). It provides a common language and reference point between the participants and the facilitators. Using the organization's language reinforces the organization's on going quality improvement program(s) and reduces potential confusion caused by different terminology being used for the same concepts.

The opportunity to conceptualize and experiment with solutions to learning activities builds in ownership during the skill analysis stage of the learning model. Debriefing sessions conducted after each outdoor experiential activity allow participants to identify appropriate and inappropriate skill performance. Debriefing should be directed by the training facilitator to ensure learning objectives are fully addressed.

Skill practice addresses Kolb's (1984) concrete experience of learning. Learning activities, or initiatives, are chosen to meet particular goals and needs of the organization (Buller, Cragun, and McEvoy, 1991). Outdoor experiential training can be successfully used to address a variety of group effectiveness learning objectives: problem solving, decision making, communication, team building, managing conflict, and risk taking.

Identifying organizational critical business challenges during the skill pre-assessment stage enables participants to apply the skills learned to relevant business goals. This facilitates the transfer of those skills back to the work place.

Outdoor Experiential Training

Outdoor experiential training seeks to integrate theory and practice, and to relate the learning to the real work world. Because it is a participative style of learning, it allows

adults to interact, share their learning experiences, and provide examples from a working environment (Korey and Bogorya, 1985; Tarullo, 1992).

Although outdoor experiential training has its philosophical foundations in Plato, Aristotle, Descartes and Locke (Kraft, no date), its application foundation has been attributed to Kurt Hahn (Kraft, no date; Wagner, Baldwin, and Roland, 1991). After Hahn fled Hitler's Germany in the 1930s, he developed the Gordonstoun School in Scotland which utilized outdoor experiences to develop students' inner resources. During World War II, Hahn developed a one-month marine skills and survival training program for young British sailors. The course was called "outward bound" after a phrase used by sailors when they journeyed from a safe harbor.

Hahn's program was first used as a model for the United States by the Civilian Conservation Corps, a New Deal program that hired unemployed people. In 1962 the Colorado Outward Bound School was created using the same model, and took a hundred boys into the mountains to try to teach them something about self-discovery.

Many companies began utilizing outdoor experiential training during the 1970s and early 1980s because of its apparent effectiveness as a human resource development strategy, particularly for enhancing team building for work groups (Wagner, Baldwin, and Roland, 1991). In 1991 more than 100 training organizations offered some type of outdoor training, which was also known as outdoor experiential or adventure training. One for-profit outdoor training organization ran over 20,000 managers through its program during 1991 (Tarullo, 1992).

Outdoor experiential training can be categorized into two major types: wilderness programs and outdoor-based programs (Wagner, Baldwin, and Roland, 1991; Laabs, 1991; Tarullo, 1992). Wilderness programs require participants to live outdoors and engage in strenuous activities such as mountain climbing, whitewater rafting, and sailing. Facilitators set up challenges that participants must solve on their own. A typical

wilderness program lasts four to nine days (Laabs, 1991).

Outdoor-based programs generally occur at a permanent site rather than in a large wilderness area. Much of the training occurs on a specifically designed facility called a ropes course (Wagner, Baldwin, and Roland, 1991; Tarullo, 1992). "Low ropes" courses rarely required the participant to get higher than eye level. No harnesses or other physical safety equipment is required. "High ropes" courses take place well above ground level and require special safety equipment. Most outdoor-based, experiential training facilities offer both types of ropes courses. A typical ropes course is one day to five days in length, depending on the learning objectives.

Ropes activities range from scaling 16-foot walls to walking blindfolded in a field to jumping off a 25-foot telephone pole (Galagan, 1987). Different activities can be used to address a variety of learning goals--i.e., communication skills, problem solving, and team building. Although a facilitator guides and directs the training activity, the learner shares the responsibility of the learning experience (Laabs, 1991; Galagan, 1987).

A facilitator will present carefully selected and sequenced outdoor activities or initiatives during an outdoor-based experiential training program that address particular goals or needs of the organization (Buller, Cragun, and McEvoy, 1991). Initiatives are generally one-half hour to four hours in length and are followed by a debriefing, or discussion of the insights gained from the activity. Low ropes courses are most generally used to teach team concepts such as communications, leadership, problem solving, and team building. Personal development issues such as self-esteem building and risk taking are best addressed on the high ropes course (Wagner, Baldwin, and Roland, 1991). For the purposes of this paper, outdoor experiential training will refer to that training which can take place out-of-doors in a park-like setting. It will not include wilderness adventure experiences.

Outdoor experiential training activities can be designed around a broad spectrum of organizational issues: management-labor communications, team leadership, stress

management, interdepartmental communications, as well as quality-related skills such as team building, interpersonal communications, and problem solving. Because of its versatility, outdoor experiential training could easily be adapted for use as part of a quality improvement program.

Participants in an outdoor experiential training program first identify their learning goals and then progress as a group through communication, problem solving, and trust building activities that utilize walls, poles, traverses, and trapezes as part of the learning experience (Galagan, 1987). The goals identified may be group, individual, or both.

Metaphors are used to draw parallels between the outdoor adventure experience and the work world (Gass, Goldman, and Priest, 1992; Long, 1987). Some examples include risk taking and the opportunity for success, valuing internal collaboration for external competition, and utilizing diverse perspectives to solve problems. Exercises can be modified to focus on individual strengths and weaknesses or to address organizational issues such as total quality management (Laabs, 1991; Starcevich and Stowell, 1990). It is important to structure metaphors in a way that is appropriate for the organization participating in the training experience. Appropriate metaphors for one organization may not meet the needs of other organizations (Gass, Goldman, and Priest, 1992).

Roy Yamahiro, Vice President of Federal Express Corporation, expresses a differing opinion about drawing parallels between the experience and work (Gall, 1987). Yamahiro explains that the primary objective of experiential training (p. 58):

“is not to take people into an outdoor setting and draw parallels between that experience and experiences in the office. If you can get people to risk trying something that they are sure they can't do and they discover they can do it, that realization translates into their whole attitude about how they approach life, how they approach work, how they approach managing.”

Outdoor experiential training includes several components. The first is an assessment of the organization to identify specific needs to be addressed during the training activity. The training activity can be designed around a broad spectrum of organizational issues: management-labor communications, team leadership, interdepartmental communications, stress management, as well as quality-related skills such as team building, interpersonal communications, and problem solving (Wagner, Baldwin, Roland, 1991; Laabs, 1991; Buller, Cragun, and McEvoy, 1991).

A pre-outdoor module of one-half to two days in length is often conducted just prior to the outdoor phase to introduce participants to the training experience (Buller, Cragun, and McEvoy, 1991). During this module, the conceptual foundation for the skills and behaviors to be taught is presented. A personal style evaluation may be administered as a tool to build an appreciation of individual differences within the group. Group and individual goals are discussed.

On the outdoor experiential training course, "ice-breakers" and warm-up activities help establish an atmosphere of camaraderie and adventure before the team encounters a variety of physical and mental obstacles (Wagner, Baldwin, and Roland, 1991). The obstacles encountered during the training experience give participants the opportunity to learn how to communicate, solve problems, and build a network of trust and support.

Debriefing sessions are conducted after each activity to give the team time to reflect on what they have experienced and what they have learned. During the debriefing activity, participants analyze their efforts to accomplish the initiatives and act cohesively as a group. This is a critical step in applying the outdoor experiences to the work place (Wagner, Baldwin, and Roland, 1991; Gass, Goldman, and Priest, 1992).

Several factors will dictate the appropriateness of outdoor experiential training in the corporate setting. These factors include time, money, corporate culture, and learning goal(s). Based on corporate training experiences, outdoor training seems to be the most

effective for newly formed and intact work teams (Wagner, Baldwin, and Roland, 1991). To maximize the effectiveness of outdoor experiential training, it should be combined with classroom training. This, however, increases the time and money required for the training activity.

Wilderness programs costs range from \$1,500 to \$4,000 per participant, with an average cost of \$2,800. Outdoor-centered programs cost \$65 to \$2,000 per participant, with an average cost of \$300 per person (Wagner, Baldwin, and Roland, 1991). The Tulsa-based Challenge Quest organization offers a three-day outdoor-based experiential training program at a cost of \$500 per participant. This cost includes food and boarding at a training facility outside the Tulsa city limits. Although perceived by the Challenge Quest staff to be less effective, a one-day program is available on their Tulsa outdoor course at a cost of \$150 per participant.

How receptive members of an organization will be to outdoor experiential training will, in part, be based on the culture of the organization. This, in turn, is created by the organizational norms.

Allen (1987) describes a norm as the expected or anticipated way of behaving within a group. "The norms form a code of behavior established for the group, and support ways of behaving that determine so much of what we do. ... This power is evident when a new behavior is taught and then comes into conflict with an old, established behavior. Experience shows that the old norm nearly always wins out" (p. 181). If organizational norms do not support participative learning or experimentation, certain forms of experiential learning will not be successful.

There are differing opinions about the effectiveness of outdoor experiential training. Some organizations use outdoor experiential training simply as a management perk. There is little or no tie into company objectives (McEvoy and Buller, 1990). There can also be difficulty transferring the skills/behaviors learned during the training to those who have not

participated in the training event. McEvoy and Buller (1990) cite an example of the difficulty in assigning corporate results to an outdoor management training program in the aerospace industry (p. 42):

Improvement in participant skills are first-order outcomes; results are second-order outcomes. Many other factors besides managers' skill levels can cause results. Furthermore, in two years only 37 managers out of a total workforce of more than 6,000 have been trained in the Outdoor Management Training Program. How great an impact on measurable results can the company expect from such a small group? New knowledge and skills in teamwork and team building, in particular, may only translate to observable improvements after a critical mass of managers has completed the Outdoor Management Training Program.

Another major criticism of outdoor experiential training is the lack of evaluations of training effectiveness. Although evaluation studies have been conducted for non-corporate outdoor training programs, few corporate evaluations have been completed (Wagner, Baldwin, and Roland, 1991). In a survey of organizations' training directors from Fortune 500 Industrial Companies, Fortune 500 Service Companies, and other organizations randomly selected from the American Society for Training and Development's mailing list, about half did not evaluate their outdoor training programs. Evaluation methods used for outdoor-based training programs consisted of trainee evaluations (60%), no evaluations (45%), follow-up evaluations (10%), manager evaluations (5%), and objective data (2%) (p. 55).

The lack of evaluations with hard data is the result of the relatively high cost associated with rigorous evaluations, lack of evaluation skills among program presenters, and lack of validated evaluation instruments (Buller, Cragun, and McEvoy, 1990). The

primary form of evaluations that has been conducted is anecdotal (Tarullo, 1992).

In order to evaluate the effectiveness of outdoor experiential training, the skills being taught must either directly translate to on-the-job efforts or to return-on-investment targets such as forms processed, turnover and absenteeism, or budget variance (McEvoy and Buller, 1990). It is more difficult to establish “hard” measures for affective changes such as increasing self-awareness and insight; developing supportive communications with others; diagnosing and solving performance problems of subordinates; and building and maintaining effective work teams.

Summary

Achieving high levels of quality has become increasingly critical for corporate success. A quality improvement emphasis can result in improved productivity, reduced operating costs, increased market shares, and improved employee morale (Oberle, 1990; Dodson, 1991). Quality, as part of a total quality process, has been defined as “a commitment to meet customer expectations by doing the right things the right way the first time and 100 percent of the time at a cost that represents value to the customer” (Conference Board, 1991, p. 8). Quality is a standard expected by the customer.

Common features found in many corporate quality improvement programs included a focus on the customer, management commitment, skilled and empowered employees, and systematic processes. Three shortcomings present in many corporate quality improvement programs are 1) an activity-centered instead of a results-centered approach; 2) nonstatistical thinking; and 3) inappropriate instructional methods.

Appropriately structured employee training provides employees with the tools, skills, and knowledge necessary for a continuous cycle of quality improvement (GAO, 1991). A curriculum including a quality awareness program, problem solving and team building skills, facilitation, process management, and measurement was common to many quality

improvement programs (Conference Board, 1991; GAO, 1991; Dodson, 1991; Holpp, 1989).

Training should be effective, timely, application-oriented, and address specific needs in order to produce desired improvements within a corporate quality improvement program (Conference Board, 1991; Huszczo, 1990). It should also provide employees an awareness of quality principles and goals. Outdoor experiential training has been identified as an instructional method that will enhance, stimulate, and speed up the learning process because it operates on the physical, emotional, and intellectual levels. It can be designed to address a broad variety of quality related skills such as team building, interpersonal communications, and problem solving. The versatility of outdoor experiential training makes it appropriate for use in a quality improvement program.

Virtually no rigorous, carefully conducted evaluation of outdoor experiential training effectiveness has been conducted (Buller, Cragun, and McEvoy, 1991; Tarullo, 1992). In addition, no evaluations of outdoor experiential training's effectiveness as part of a quality improvement program for team building have been conducted.

This study hypothesized that outdoor experiential training should be effective in corporate quality improvement programs because it not only strengthens team building skills, it also increases the commitment to the learning process, and thus, increases the positive impact of learning. Effectiveness is to be determined by improved scores of the Team Effectiveness Questionnaire and by an improvement in a corporation's key performance indicator.

CHAPTER III

METHODOLOGY

The problem is that virtually no rigorous, carefully conducted evaluation of outdoor experiential training effectiveness has been carried out (Buller, Cragun, and McEvoy, 1991; Tarullo, 1992). The lack of evaluations with hard data is the result of the relatively high cost associated with rigorous evaluations, lack of evaluation skills among program presenters, and lack of validated evaluation instruments (Buller, Cragun, and McEvoy, 1990). Although outdoor experiential training can be used for team building, as well as for other quality-related training objectives, no evaluations of its effectiveness as part of a quality improvement program have been conducted.

The purpose of this study was to measure the effectiveness of outdoor experiential training for the team building component of a corporate quality improvement program. Effectiveness of this training method was to be determined by improved scores in the Team Effectiveness Questionnaire and by an improvement in the corporation's key performance indicator, in this case, number of "take-downs," or instances where a patient must be physically restrained.

The null hypothesis selected for this study was that a team that participated in outdoor experiential training for team building would not demonstrate any statistically significant or substantive difference in team effectiveness when compared to a team that did not participate. Team effectiveness was determined by comparing pre- and posttest scores on the Team Effectiveness Questionnaire and by comparing key performance indicators. The least acceptable substantive difference in the Team Effectiveness Questionnaire pre- and posttest

scores was 5, which is one-half standard deviation.

An effective team has a common set of values, vision, and goals which result in a commitment to the achievement of results (Starcevich and Stowell, 1990; Katzenbach and Smith, 1993). An effective team has developed an atmosphere in which team members feel supported, accepted, included, trusted, and liked. This results in a sense of belonging and synergistic cohesiveness. An effective team has mutual accountability. Team members trust each other to uphold the promise of commitment they make to each other (Katzenbach and Smith, 1993). Corporate measurements that focus on achieving team goals and/or measure team cohesiveness are indicators of the effectiveness of a team.

It is clinically recognized that a stable living environment has a calming effect on patients and, thus, reduces the number of take-downs. A stable environment is more likely to occur if all team members have identified that as a common goal. Agreeing upon, and working towards, a common goal is one measure of team effectiveness (Starcevich and Stowell, 1990).

Before the hypotheses could be tested, it was necessary to define the elements to be included as part of an experiential team building training program. For the purposes of this study, the corporate quality improvement outdoor experiential training program will be referred to as Quality Quest.

Quality Quest Training Program

Development

Quality Quest was created by a design team of five training professionals who modified an existing corporate outdoor experiential training program. Three members of the design team were employed by the Challenge Quest organization and were responsible for facilitating outdoor experiential training. One member of the design team was a quality

improvement consultant. The fifth member was a corporate trainer who was certified as an outdoor experiential training facilitator and the author of this study.

The two primary modifications made to the existing corporate outdoor experiential training program were to incorporate quality concepts and statistical techniques into the training activities. Quality concepts include customer-driven quality (meeting or exceeding customers' expectations); leadership commitment to quality; continuous improvement; action based on facts, data, and analysis; supplier relationships; and employee participation (GAO, 1991).

Pareto diagrams, cause-and-effect diagrams, histograms, control charts, scatter diagrams, graphs, and check sheets are the seven statistical tools most often recommended for use to examine a problem or ongoing process in order to identify its components and quantify the amount of change of stability (Imai, 1986; Conference Board, 1991). The addition of quality concepts and statistical techniques resulted in a training program that was more structured than the original.

Five modules were developed around the quality improvement topics of leadership, team building, problem solving, facilitation skills, and conflict management. The modules ranged in length from one to three days. Target audiences and training outcomes were identified for each of the five modules.

Information concerning customer needs and expectations was sought early in the development stage of the Quality Quest training program. Ten corporate trainers and twenty-eight quality assurance professionals were asked to rank the five modules from most to least beneficial. The trainers were from the Quik Trip, Mazzio's, Public Service Company, Frito-Lay, Ford, TD Williamson, Red Cross, and Williams corporations. The quality assurance professionals were all members of the American Society for Quality Control and were surveyed at one of their monthly meetings. One individual who completed the survey did not indicate his/her affiliation.

Five of the corporate trainers selected the team building module as the most beneficial module, three selected problem solving, one selected leadership, and one selected conflict management. Seventeen of the quality assurance professionals selected leadership to be the most beneficial module, seven selected team building, and four selected problem solving (Appendix B).

The corporate trainers were all employed by firms involved in quality improvement programs. Only three individuals working as quality assurance professionals were employed by firms involved in a quality improvement program. This may explain the identification of the leadership module as most beneficial by the quality assurance professionals.

Because the target audience for Quality Quest was corporations currently involved in quality improvement programs, the team building module was selected as the first module to be developed and the only module evaluated in this study. The team building module, known as "Teamwork," was designed as a two-day training experience which would conclude with the team developing an action plan. The goals of the training were:

1. By means of the Team Effectiveness Questionnaire (TEQ), to pinpoint and address problem areas that interfere with the team's effectiveness as it relates to quality improvement.
2. To relate the team's TEQ results to the key areas of Direction, Leadership, Atmosphere, Structure/Resources and Processes, and their relationship with quality concepts.
3. By means of outdoor adventure (experiential) activities, improve work-related perceptions and practices in key areas identified by the team.
4. By means of the DISC (personality profile instrument) inventory results, to provide team members opportunities to observe personality styles during the course experience and to carry insights gained into the work place.

Pre-visit

Prior to the training experience, a visit was conducted with each team. During these visits, each team member was asked to complete the Team Effectiveness Questionnaire. The questionnaire was positioned as an instrument to assess the current effectiveness of the team. To ensure common understanding, participants were instructed to identify their team “leader” in advance. Each participant was also instructed to code his/her form with a unique four- to seven-digit number to ensure anonymity.

After the questionnaires were completed, the team to participate in the training was informed that a review of the results would be presented at the beginning of the training event. A specific training date was given. The control group was informed that training would occur at some as yet undetermined date. They were also told that the data collected by the questionnaire would be used during training.

A discussion concerning expectations about the upcoming training event was conducted with the treatment group. The expectations expressed by team members included both those concerning the actual training activities and what the team wanted to accomplish. The treatment team also completed a DISC personality profile which would be used during training.

Overview Teamwork Module

The Teamwork module (see Appendix C) consisted of a series of outdoor games and initiatives that were offered to allow participants to develop the skills needed to increase team effectiveness along the dimensions of Direction, Leadership, Atmosphere, Structure/ Resources and Processes. Modifications were made to an existing corporate outdoor adventure training program so that the initiatives presented focused on how to improve quality and team effectiveness.

Training involved a variety of activities that included warm-ups, games, group initiative problems, low ropes course elements, and other rigorous physical adventure activities. The level of participation in the activities was completely up to the individual's choice. Written consent forms were completed by treatment team members prior to training.

Each portion of the training experience began with a definition and theory about the effective team characteristic being discussed. An activity was then presented that would allow the participants to experience aspects of that team characteristic. Following the activity participants entered into a debriefing discussion where they were encouraged to share the insights gained during the activity. Although training activities were selected to address all five characteristics, the majority of the training time focused on Structure/Resources and Direction, the two characteristics revealed by the Team Effectiveness Questionnaire as providing the most opportunity for improvement.

Training began with an icebreaker, introductory activity to immediately involve the participants in the experiential nature of Quality Quest. Name tags indicating primary DISC personality styles were handed out to each participant. An explanation and discussion about each style was conducted. A roles and responsibilities inventory was completed by each team member to help them focus on how they interacted within the organization. An overview and outline of the two-day experiential training philosophy was then presented.

As a homework assignment, team members were asked to write down the tasks they performed and what they needed from others. This activity was to help them focus on customer/supplier relationships.

The results of the Team Effectiveness Questionnaire were presented. A discussion was conducted about the five characteristics of an effective team as defined by the Team Effectiveness Questionnaire: Direction, Leadership, Atmosphere, Structure/Resources, and Processes (Appendix A). The group was then asked to brainstorm the cause(s) of why a certain question received the highest negative responses.

The activity selected to address the characteristics of Structure/Resources and Atmosphere was a Trust Flip (Teamwork Leaders Guide, no date). Team initiatives, member strengths and roles, and trust were topics discussed during the debriefing.

The effective team characteristics of Direction and Leadership were the focus of the Grid activity (Teamwork Leaders Guide, no date). Debriefing discussions included how the group set goals, how they worked together to achieve a common goal, who assumed leadership, and how the team's identified leader also needed direction and assistance from the group.

Part of each activity's debriefing was the development of a group action plan. The completed action plan at the end of the training event included a statement of common goals, specific actions to be taken by each team member, and time frames for actions.

Subjects

The subjects for this study were members of two employee work teams from a psychiatric health care facility located in Tulsa, Oklahoma. Because team effectiveness was being studied, intact work teams were needed (Huszczko, 1990). During the initial discussions with the Challenge Quest facilitators, the psychiatric health care facility identified which team was to receive treatment and which team was to act as the control group. The criteria used for selection was not given.

The treatment was an outdoor experiential training program focusing on team building and total quality management. No other training was presented to either team during the time this study was being conducted. Training was conducted as part of the company's ongoing quality improvement activities.

Both teams had been involved in their company's quality improvement process which included both team building and problem solving training components. Each team included male and female members. Some members of each team had previously participated in

outdoor experiential training activities. Four members of the treatment team and five members of the control team have been certified as outdoor adventure training instructors.

The treatment team, identified by the psychiatric health care facility as 2-West, staffed one wing of the acute psychiatric care unit for adolescents. The team included nine adolescent care workers, one nurse, one secretary and one clinical supervisor. The team was responsible for providing 24-hour care to adolescents who had been moved from a residential psychiatric treatment program to the acute care unit because they were classified as unstable. Each team member worked one of three, eight-hour shifts.

The control team, 1-West (as identified by the psychiatric health care facility), staffed a second wing of the acute psychiatric care unit for adolescents. The team included eleven adolescent care workers, two nurses, one secretary and one clinical supervisor. This team was also responsible for providing 24-hour care to adolescents moved from the residential psychiatric treatment program to the acute care unit because they were classified as unstable. Each team member worked one of the three, eight-hour shifts. The resident-to-staff ratio in each acute care unit is three-to-one.

No certification or license is required to become an adolescent psychiatric care worker. Promotion to higher levels of this job classification are based on experience and training. All staff members in a wing report to one clinical supervisor. The clinical supervisor position is filled by either an individual with a Masters, Social Worker degree or is a Registered Nurse with previous social work experience. The clinical supervisors of both teams are Registered Nurses.

Positions in the acute psychiatric care units are not considered desirable by employees of the psychiatric health care facility because of low wages and a high stress environment. Two months prior to this experimental study, 37 workers compensation claims were filed by the staff of the three acute care units. These claims were the result of adolescents attacking staff personnel.

The psychiatric health care facility was recently purchased by a new corporation. During the two months prior to this study, a decrease in funding resulted in fewer supplies being available to staff members and a reduction in the number of day trips for residents. It was anticipated that the failure to pass Oklahoma House Bill 647 during the recent November election would result in a loss of funding which, in turn, would result in a staffing reduction of approximately 30 percent by the end of 1992. This had a negative impact on morale and esprit de corps.

Instrument

The effectiveness of outdoor experiential training on a corporation's quality improvement process was evaluated using the Team Effectiveness Questionnaire (Appendix A) developed by Dr. M. M. Starcevich, Team Excel Consulting Firm. Improvement in team effectiveness indicators identified by the psychiatric health care facility, number of take-downs, was used as an additional indicator of the training's effectiveness. Comparisons were made between the number of take-downs and the questionnaire scores to determine if increasing or decreasing trends existed.

The Team Effectiveness Questionnaire is a fifty true/false statement instrument designed to measure the effectiveness of a team on five dimensions: Leadership, Direction, Structure/Resources, Atmosphere, and Processes. The instrument design is a modified Thurstone scale that uses the instrument's composite score to determine the degree of team effectiveness. A smaller number of true answers equates to a more effective team.

The Team Effectiveness Questionnaire was developed from a Team Effectiveness Model (Appendix A). The model discusses five key areas for team effectiveness: Leadership, Direction, Structure/Resources, Atmosphere, and Processes. Leadership discusses appropriate and flexible leadership styles used by team members. Direction refers to a focused commitment allowing the team to be clear about its values, vision, mission

strategies, goals, and priorities. Structure/Resources addresses roles and responsibilities of team members as well as job design and administrative support procedures. Atmosphere is the feeling of support, acceptance, trust, involvement, listening, and feedback among team members. Processes are the problem solving and decision making procedures used by team members.

The questionnaire was originally developed as an indicator of team effectiveness. The Challenge Quest Organization of Tulsa, Oklahoma, has been utilizing this instrument in their corporate outdoor experiential training program since mid-1991 and has been involved in some preliminary validity and reliability studies of the instrument. A jury of subject matter experts (five corporate trainers involved in team-building training) was asked to review the questionnaire and comment on whether they felt it would evaluate team effectiveness. The consensus of the jury was that it would. A test-retest reliability study conducted prior to this study demonstrated a high coefficient of stability, $r = .0157$ (see Table 1). At 69 degrees of freedom, $t \geq 3.460$ is considered significant at a .001 probability level. No published or unpublished validity or reliability results were available. No norms have been established for this instrument.

TABLE 1
TEST-RETEST RELIABILITY STUDY

	TEST	RETEST	r
NUMBER	35	36	.0157
MEAN	16.7	16.74	
STANDARD DEV	6.3098	5.2611	

$df = 69$

$\alpha < .001$

A review of the Mental Measurement Yearbooks and Tests in Print revealed no other team effectiveness measurement instruments with validity or reliability data. Although a search of literature revealed a possible alternate instrument, PAVE developed by Dr. Jesse Stoner-Zemel, permission was not given by the developer for use in this study.

The number of take-downs for both teams were obtained from corporate records. The teams were not informed that this information would be used as a measure of team effectiveness. The data used were for the four months immediately prior to the administration of the pretest and for the month following the post-test.

Experimental Design

The design used in this study was a pretest-posttest nonequivalent control group design. It was selected because the use of two existing work teams prohibited the random selection of individuals into treatment and control groups. Although considered a stronger design (Gay, 1987), the limited number of teams available for study prohibited the use of a Solomon Four-Group design.

The pretest-posttest design was selected to control for selection, testing, and history threats to validity (Gay, 1987). The pretest design was selected in order to determine if the two teams were equivalent prior to treatment, and thus address the selection threat to internal validity. The use of a posttest would assess if any testing threat existed. The ramifications of the failure to pass Oklahoma House Bill 647 could cause a historical threat to internal validity because it could have a negative impact the posttest scores. If the control group's posttest scores varied significantly from their pretest scores, a similar variation could be expected in the treatment group's scores.

A pretest using the Team Effectiveness Questionnaire was administered to both the treatment group and the control group approximately one week prior to the outdoor experiential training event. The control group had previously completed this questionnaire

approximately six months prior to this research activity which might have resulted in an additional testing threat to validity. The treatment group had not previously seen the instrument.

The pretest was presented to both groups as part of an upcoming training event on team building. The pretest was administered by the company's quality improvement process coordinator at normally scheduled staff meetings. The staff meeting for the treatment group was held October 13, 1992. The staff meeting for the control group was held October 20, 1992.

Because leadership was one of the team effectiveness characteristics measured by the instrument, the company's quality improvement coordinator asked each group to identify their team leader. Once the team leader had been identified, team members were instructed to read the Team Effectiveness Questionnaire's instructions and answer the true/false questions based on the identified team leader. Team members were also instructed to write a unique identification code on the front of the questionnaire answer form so that the responses could be tracked by group while maintaining individual anonymity. Written instructions were provided to team members not in attendance at the staff meeting because of their work schedule (Appendix D).

A posttest utilizing the Team Effectiveness Questionnaire was administered approximately two weeks following the outdoor training experience to both the treatment and control groups. These tests were also administered by the company's quality improvement process coordinator at a staff meeting. The staff meeting for the treatment group was held on December 8th. The staff meeting for the control group was held December 10th. Team members not in attendance because of their work schedule were mailed a questionnaire to complete.

The outdoor experiential training was conducted at a city park located in Tulsa Oklahoma. Training occurred on two consecutive days from 8:00 a.m. until 5:00 p.m.

Training was provided by two staff members of the Challenge Quest organization on Thursday and Friday, November 12 and 13, 1992. The weather was sunny, cool, and windy both days.

The Challenge Quest organization offers outdoor experiential training to corporations in Oklahoma and neighboring states. Although it is an affiliate organization of the psychiatric health care facility participating in this research study, it does not provide psychiatric training or support functions. Both organizations report to the same parent organization but have independent structures.

The training activities were customized by emphasizing different team effectiveness characteristics to address opportunities for improvement as identified by results of the treatment group's Team Effectiveness Questionnaire. The goals stated in the Leaders Guide for the Teamwork training program were:

1. To explore and understand the concepts of total quality management such as statistical process control, continuous improvement, data based decisions, teamwork, and benchmarking.
2. To provide activities characteristic of outdoor adventure programs that lead to improvement of team effectiveness by addressing those problem areas identified by the group and the Team Effectiveness Questionnaire that interfere with the team's effectiveness at the work place.
3. By means of the DISC personality inventory results, to provide team members opportunities to observe and understand personality styles during the training experience and to carry those insights into the work place.

Summary

This study was based on the hypothesis that team building training would result in a difference in team effectiveness. Team effectiveness was to be measured by changes in the

scores of the Team Effectiveness Questionnaire and by changes in the key company indicator of number of take-downs.

An effective team has a common set of values, vision, and goals which result in a commitment to the achievement of results (Starcevich and Stowell, 1990; Katzenbach and Smith, 1993). An effective team has developed an atmosphere in which team members feel supported, accepted, included, trusted, and liked. This results in a sense of belonging and synergistic cohesiveness. Corporate measurements that focus on achieving team goals and/or measure team cohesiveness can be indicators of the effectiveness of a team.

The subjects for this study were members of two employee work teams from a Tulsa, Oklahoma, psychiatric health care facility. Because team effectiveness was being studied, intact work teams were used. The treatment was an outdoor experiential training program focusing on team building and total quality management. Training was conducted as part of the company's ongoing quality improvement activities.

The treatment was a series of outdoor games and initiatives that allowed participants to develop the skills needed to increase team effectiveness along the dimensions of Direction, Leadership, Atmosphere, Structure/Resources and Processes. The training involved a variety of activities that included warm-ups, games, group initiative problems, low ropes course elements, and other rigorous physical adventure activities.

The effectiveness of outdoor experiential training on a corporation's quality improvement process was evaluated using the Team Effectiveness Questionnaire developed by Dr. M. M. Starcevich, Team Excel Consulting Firm. Changes in the key company quality indicator, take-downs, was used as an additional indicator of the training's effectiveness.

CHAPTER IV

PRESENTATION OF FINDINGS

Virtually no rigorous, carefully conducted evaluation of outdoor experiential training effectiveness has been carried out (Buller, Cragun, and McEvoy, 1991; Tarullo, 1992). In addition, no evaluations of outdoor experiential training's effectiveness as part of a quality improvement program for team building have been conducted.

The purpose of this study was to measure the effectiveness of outdoor experiential training for the team building component of a corporate quality improvement program. Effectiveness of this training method was to be determined by improved scores in the Team Effectiveness Questionnaire and by an improvement in the corporation's key performance indicator, number of take-downs.

Raw score compilations for the Team Effectiveness Questionnaire were entered into a Macintosh Classic Personal Computer utilizing the FASTAT Statistical Analysis Package, Version 2. The Macintosh FASTAT package was developed by SYSTAT, Inc., and is based on the same mathematical routines found in SYSTAT packages (SYSTAT, 1992).

The Team Effectiveness Questionnaire was administered as a pretest to both the control (1-West) and treatment (2-West) groups. Examination of pretest scores means suggested initial differences existed between the groups (see Table II). The results of a t -test did not indicate a statistically significant difference, however.

Posttests were administered to both groups approximately one month after the treatment group participated in outdoor experiential training. The same instrument that was used for the pretest was used for the posttests. Examination of the means and standard

deviations of posttest scores indicated a substantive difference of one-half standard deviation existed following treatment between the control and treatment group (see Table II). Again, this was not considered statistically significant based on a t -test.

TABLE II
DESCRIPTIVE STATISTICS, PRE- AND POSTTEST SCORES

	GROUP		t
	CONTROL	TREATMENT	
PRETEST			
N OF CASES	10	7	1.306 ^a
MEAN	15.900	22.286	
STANDARD DEV	10.959	8.118	
POSTTEST			
N OF CASES	10	7	1.815 ^b
MEAN	16.500	9.000	
STANDARD DEV	9.857	5.477	

^a $df = 15$ $p = .211$

^b $df = 15$ $p = .090$

t -SCORE ≥ 2.131 AT ALPHA .05 IS CONSIDERED SIGNIFICANT
AT 15 DEGREES OF FREEDOM

Number of take-downs was identified by the organization participating in this study as a corporate measurement that would act as an indicator of team effectiveness. A take-down is the restraint action imposed by a staff person by physically taking an adolescent down to the floor when the adolescent loses control. Take-down data were tracked on a monthly

basis by the corporation and reported on a Monthly Incident Report to Unit/Program (Appendix E). The data for each month appear on the following month's report, e.g., July's data appear on the report dated August 21, 1992. An incident can be reported by a staff member, patient, or both. The teams were not informed that this information would be used as a measure of team effectiveness.

Because anonymity was guaranteed, it was not possible to correlate the number of take-downs to individual test scores. Raw scores were compared in an attempt to identify trends in the number of take-downs between the teams before and after the training experience. For a historical perspective, take-down data for July, August, and September have been included.

Comparisons were made of total number of take-downs by team and average number of take-downs by team member (see Table III, p. 53). July through October were considered pre-treatment data with the month of December classified as post-treatment. Data for the month of November have been included to determine if any visible trends existed. Table IV (p. 53) indicates who reported the take-down, staff or patient, and the average staff to patient ratio during the incident.

No observable trends were identified from the data collected. Although the control group demonstrated a decreasing trend in the number of take-downs from September to December, the treatment group did not exhibit any consistent trend. The staff displayed a greater variation in the number of take-downs reported than did the patients. The number of take-downs reported by the control group varied from two in December to a high of fourteen in September. The treatment group reported a low of one in December to nine in July. The patients for the control group reported the most consistent number of take-downs, a range from four in October and November to a high of eight in August. The number of take-downs reported by the patients for the treatment group varied from one in October to six in July.

TABLE III
NUMBER OF TAKE-DOWNS

	GROUP			
	CONTROL		TREATMENT	
	TOTAL	AVG PER TEAM MEMBER	TOTAL	AVG PER TEAM MEMBER
JULY	18	1.20	15	1.25
AUGUST	16	1.07	12	1.00
SEPTEMBER	19	1.27	7	.58
OCTOBER	15	1.00	4	.33
NOVEMBER	10	.67	8	.67
DECEMBER	7	.47	4	.33

TABLE IV
NUMBER OF TAKE-DOWNS, HOW REPORTED

	GROUP					
	CONTROL			TREATMENT		
	BY STAFF	BY PATIENT	STAFF/PAT RATIO	BY STAFF	BY PATIENT	STAFF/PAT RATIO
JULY	10	7	2/4	9	6	2/4
AUGUST	9	8	2/8	7	2	3/6
SEPTEMBER	14	5	4/7	4	4	2/3
OCTOBER	11	4	4/5	3	1	4/33
NOVEMBER	5	4	3/9	3	5	3/1
DECEMBER	2	5	3/8	1	3	3/2

Only one trend was noted by the staff of either group during the period reported. The control group commented that there was a high rate of reports involving errors and/or conflicts in scheduling during July.

Based on the data provided on the incident report, the patients of treatment group visited a ropes course during the month of October. It is interesting to note that only four incidents of take-downs were reported for this group during October even though the staff to patient ratio was four to 33. A possible correlation may exist between this type of patient activity/treatment and number of take-downs.

Although there was a substantive difference between the Team Effectiveness Questionnaire pre- and posttest scores of the treatment group of at least 5 (one-half standard deviation), no statistically significant difference existed at an alpha level of .05. The treatment group did not demonstrate any improvement trends in the key corporate indicator, number of take-downs, that were attributable to the training event. At an alpha level of .05, the original hypothesis that there would be no statistically significant difference in scores between a team that participated in outdoor experiential training for team building and a team that did not participate was not rejected. The hypothesis that there would not be a substantive difference of at least one-half standard deviation was rejected, however.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The problem is that virtually no rigorous, carefully conducted evaluation of outdoor experiential training effectiveness has been conducted (Buller, Cragun, and McEvoy, 1991; Tarullo, 1992). Although outdoor experiential training can be used for team building, as well as for other quality-related training objectives, no evaluations of its effectiveness as part of a quality improvement program have been conducted.

The purpose of this study was to measure the effectiveness of outdoor experiential training for the team building component of a corporate quality improvement program. Effectiveness of this training method was to be determined by improved scores in the Team Effectiveness Questionnaire and by an improvement in the corporation's key performance indicator, in this case, number of "take-downs," or instances where a patient must be physically restrained.

Quality, as part of a total quality process, has been defined as "a commitment to meet customer expectations by doing the right things the right way the first time and 100% of the time at a cost that represents value to the customer" (Conference Board, 1991, p. 8). Quality is a standard expected by the customer. Achieving high levels of quality has become increasingly critical for corporate success because it can result in improved productivity, reduced operating costs, increased market shares, and improved employee morale (Oberle, 1990; Dodson, 1991).

Although there has been no one approach used by corporations to implement a successful quality improvement program, there are common features found in many corporate quality improvement activities (GAO, 1991). These include a focus on the customer, management commitment, skilled and empowered employees, and systematic processes.

The Conference Board's U.S. Quality Council has identified six courses generally included on a list of corporate quality programs (1991). The topics include quality awareness, team building, customer awareness training, process management training, quality measurement, and statistical training. Three common shortcomings in many quality improvement training programs are an activity-centered approach instead of a results-centered approach, nonstatistical thinking, and inappropriate instruction methods.

Appropriately structured training provides employees with the tools, skills, and knowledge necessary for a continuous cycle of quality improvement (Conference Board, 1991; GAO, 1991; Dodson, 1991; Holpp, 1989). Training should be effective, timely, application-oriented, and address specific needs in order to produce desired results within a quality improvement program (Conference Board, 1991; Huszczo, 1990). Because awareness training alone is seldom sufficient to lead to behavioral changes (Ferketish and Hayden, 1992), awareness training and skill training are both needed to produce the desired quality improvements within a corporation. Customizing the training activity around crucial business objectives provides a result-oriented focus (Schaffer and Thomson, 1992).

To produce the highest level of learning, training should include concrete experience, reflective observation, abstract conceptualization, and active experimentation (Kolb, 1984). Outdoor experiential training is a learning approach that incorporates these four adaptive learning modes. In outdoor experiential activities, concrete experience occurs because this type of training allows the participant to take part in new endeavors and experience new feelings. Reflective observation may happen at the beginning, during the middle, or at the

end of the activity. Abstract conceptualization occurs as the learner develops a strategy to complete problem-solving tasks. Executing different strategies results in active experimentation.

Outdoor experiential training has been identified as an instructional method that will enhance, stimulate, and speed up the learning process because it operates on the physical, emotional, and intellectual levels. It can be designed to address a broad variety of quality-related skills such as team building, interpersonal communications, and problem solving. The versatility of outdoor experiential training makes it appropriate for use in a quality improvement program.

This study hypothesized that outdoor experiential training should be effective in corporate quality improvement programs because it not only strengthens team building skills, it also increases the commitment to the learning process, and thus increases the positive impact of learning. Effectiveness was to be determined by improved scores of the Team Effectiveness Questionnaire and by an improvement in the corporations's key indicator, number of take-downs.

A two-day team building module was created by modifying an existing corporate outdoor experiential training program. The two primary modifications made to the existing program were to incorporate quality concepts and statistical techniques into the training activities. The module consisted of a series of outdoor games and initiatives that were offered to allow participants to develop the skills needed to increase team effectiveness along the dimensions of Direction, Leadership, Atmosphere, Structure/Resources and Processes.

The subjects for this study were members of two employee work teams from a psychiatric health care facility located in Tulsa, Oklahoma. Because team effectiveness was being studied, intact work teams were needed. Both teams had been previously involved in their company's quality improvement process which included problem solving and team

building training components. One team participated in the outdoor experiential training activity while the other team acted as a control group and received no additional training.

The effectiveness of outdoor experiential training on a corporation's quality improvement process was evaluated using the Team Effectiveness Questionnaire developed by Dr. M.M. Starcewich, Team Excel Consulting Firm. The questionnaire was administered as a pretest to both groups approximately one week prior to the outdoor experiential training event. It was also administered as a posttest to both groups approximately two weeks following the training event.

In an attempt to make the training results-oriented, the corporation was asked to identify a key indicator that would be used to evaluate the effectiveness of the teams. The indicator selected for the team members was the number of take-downs. A take-down is the restraint action imposed by a staff person by physically taking an adolescent down to the floor when the adolescent loses control.

Conclusions

Gay (1987) suggests that experimental studies should have a minimum of 15 subjects per group, provided that there are tight experimental controls (pp. 114-5). As the sample size decreases, the standard error of the mean increases and the difference between the subjects approaches chance. A small sample size makes it difficult to evaluate if the differences observed are caused by the treatment or are the result of chance random sampling error. The difficulties created by a small sample size are compounded if the standard deviation within the population is large.

The original design of this study was to include members of three paired corporate work teams. One team from each paired set was to act as the control group while the other parallel team would participate in the outdoor experiential training. Unfortunately, during the nine-month period prior to this study, only one Tulsa-area corporation was identified

that was receptive to participate in this study. Incentives to participate included providing the training on a no-cost basis and allowing the corporations to schedule the training activity at a time most convenient to them. Although several corporations expressed interest in outdoor experiential training for team building, most did not feel they could release an intact work team for two days of training.

The paired work teams finally identified to participate in this study were slightly smaller than the recommended minimum. The treatment team had twelve members while the control team had fifteen. It was hoped that no or minimal attrition of team members would occur during the month this study would be conducted. Only ten members of the control team completed both the pre- and posttests. Although all twelve members of the treatment team completed a pretest questionnaire, only seven completed the posttest. Although the exact cause(s) of the attrition was unknown, it was conjectured that reduced funding and lack of job security contributed to the attrition. Because the sample size used for both groups was less than the suggested minimum, the test results are suspect.

The standard deviation of pretest scores of the Team Effectiveness Questionnaire was 10.184 for four different groups with a combined n of 42. This means that on a fifty-item instrument, 68% of the scores would be plus or minus 10 from the mean. A standard deviation of 10.184 on a fifty-item instrument indicates great variation exists within the population.

The pretest standard deviation score for the control group was 10.959. The pretest standard deviation score for the treatment group was 8.118 indicating that there was more consensus within the treatment group as compared to the control group. The consensus within the treatment group also was greater than the average of the four other groups who had previously taken the Team Effectiveness Questionnaire.

Typically a difference of one-half standard deviation between the posttest scores of the control and treatment groups indicates that a substantive difference exists (Feldt and

Mahmoud, 1958). A substantive difference is one where a change in behavior should be observable after treatment had been administered. One-half standard deviation for the Team Effectiveness Questionnaire would be approximately 5. The mean of the posttest score of the control group was 16.5. The posttest score mean for the treatment group was 9.00. This difference is in excess of one-half standard deviation. It is also interesting to note that the difference in the treatment group's pre- and posttest means was 13.286, which would also suggest that a substantive difference existed because of the treatment.

The small sample size probably explains why the t -test results for the posttest scores did not reveal a significant difference even though the mean of the treatment group's posttest scores were lower than one-half standard deviation of the control group's scores. For a given alpha level, the values of t required to reject a null hypothesis are progressively higher for progressively smaller samples. When sample sizes are small and great variation exists within the groups, greater random differences between groups is expected (Gay, 1987). A small sample size with a large standard deviation increases the likelihood of making a Type II error, failing to reject a null hypothesis that is really false.

The corporation was asked to identify a key indicator of team effectiveness prior to this study. No validation studies nor norming analysis had been conducted to evaluate the ability of indicator selected to measure the effectiveness of a team.

Although the control group demonstrated a decreasing trend in the number of take-downs reported for the three-month period from October through December, 1992, no similar trend was observed for the treatment group. The treatment group reported only four take-downs in October when the staff-to-patient ratio was 4 to 33. Four take-downs were also reported by this team in December when the staff-to-patient ratio was 3 to 2.

Further analysis is needed to validate the indicator selected. Based on six months of data, it appears a high variation in the number of take-downs reported is typical for this organization. It also appears that staff-to-patient ratio does not correlate to the number of

take-downs reported. Additional research would be needed to determine if other unidentified variables affected the number of take-downs reported. No conclusions can be drawn from the key indicator selected by the corporation without additional research.

An analysis of the pre- and posttest scores produced contradictory results. Although there was a substantive difference between pretest and posttest scores of the treatment group of at least 5, no statistically significant difference existed at an alpha level of .05. The treatment group did not demonstrate any improvement trends in the key corporate indicator, number of take-downs. Because of this, the original hypothesis that there would be no statistically significant difference in scores between a team that participated in outdoor experiential training for team building and a team that did not participate was not rejected. The hypothesis that there would be no substantive difference was rejected, however.

Recommendations

The Teamwork training module appears to be appropriate for a corporate quality improvement program because it addresses the three shortcomings found in many programs. A results-centered approach was created by requiring team members to develop a group action plan stating common goals, specific actions to be taken by each team member, and time frames for actions. Statistical techniques were integrated into the training activities. Outdoor experiential training's approach of integrating theory and practice, and of relating learning to the real work world, appears to make it an appropriate instructional method for quality improvement. Further research is needed, however, to evaluate the effectiveness of outdoor experiential training for the team building component of a corporate quality program.

Although most successful teams have two to twenty-five members, the majority have fewer than ten (Katzenbach and Smith, 1993). Because the typical-sized team is too small to produce conclusive statistical results, a comparison of several paired teams' test results

should be made. Ideally, the study should consist of several paired teams from the same corporation. Using teams from the same corporation would eliminate the variables which could occur from testing teams who have participated in different quality improvement programs and/or are from different corporate environments.

Using existing teams can pose a threat to internal validity because initial differences in the groups may at least partially account for posttest differences. An analysis of covariance (ANCOVA) statistical test could be used to compensate for potential initial differences. Analysis of covariance equates groups on one or more variables by adjusting for initial differences between two groups (Gay, 1987). Because intact groups were used, the results from the ANCOVA would have to be interpreted with caution. The ANCOVA was not used for this study because *t*-test scores did not reveal any significant differences existed between the groups prior to treatment.

No references in literature could be found discussing the appropriateness of using inferential statistics for quasi-experiment designs. Dr. Michael Barnes, a Tulsa University statistician, was consulted about the acceptability of the ANCOVA test. According to Dr. Barnes, an ANCOVA would be acceptable provided that content validation of the instrument had been established by a jury of subject matter experts.

As the alpha level becomes smaller, the probability of committing a Type II error, accepting a null hypothesis that is false, increases. According to Gay (1987), for most studies, an alpha of .05 is a reasonable probability level when the consequences of committing a Type I error are not serious. Occasionally an exploratory study will use an alpha level of .10. If sample sizes continue to be small in future research studies, selecting a larger alpha level could offset the effects of a small alpha. For this study, an significant difference would have existed in the posttest scores at an alpha level of .10.

Requiring a corporation to select key indicators to measure team effectiveness encourages a result-oriented perspective. Unfortunately, most indicators selected will probably

not have validation or norming statistics. Although key indicator results can be used to reinforce the statistical results, they should not be used as the sole measure of team effectiveness.

Although initial validation and reliability studies have been conducted for the Team Effectiveness Questionnaire, additional validation/reliability studies should be conducted to provide norming statistics.

Time series study of the effectiveness of outdoor experiential training also provides an opportunity for additional research. Truly effective training should demonstrate the ability to maintain improved results over a several-month period of time.

Based on the review of literature, outdoor experiential training appears to be an instructional method that should be effective in developing the employee skills necessary for an improved corporate quality. The versatility of outdoor experiential training appears to make it appropriate for use in a quality improvement program. Although these research results were inconclusive, further evaluation of outdoor experiential training is recommended.

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APPENDIXES

APPENDIX A

TEAM EFFECTIVENESS QUESTIONNAIRE

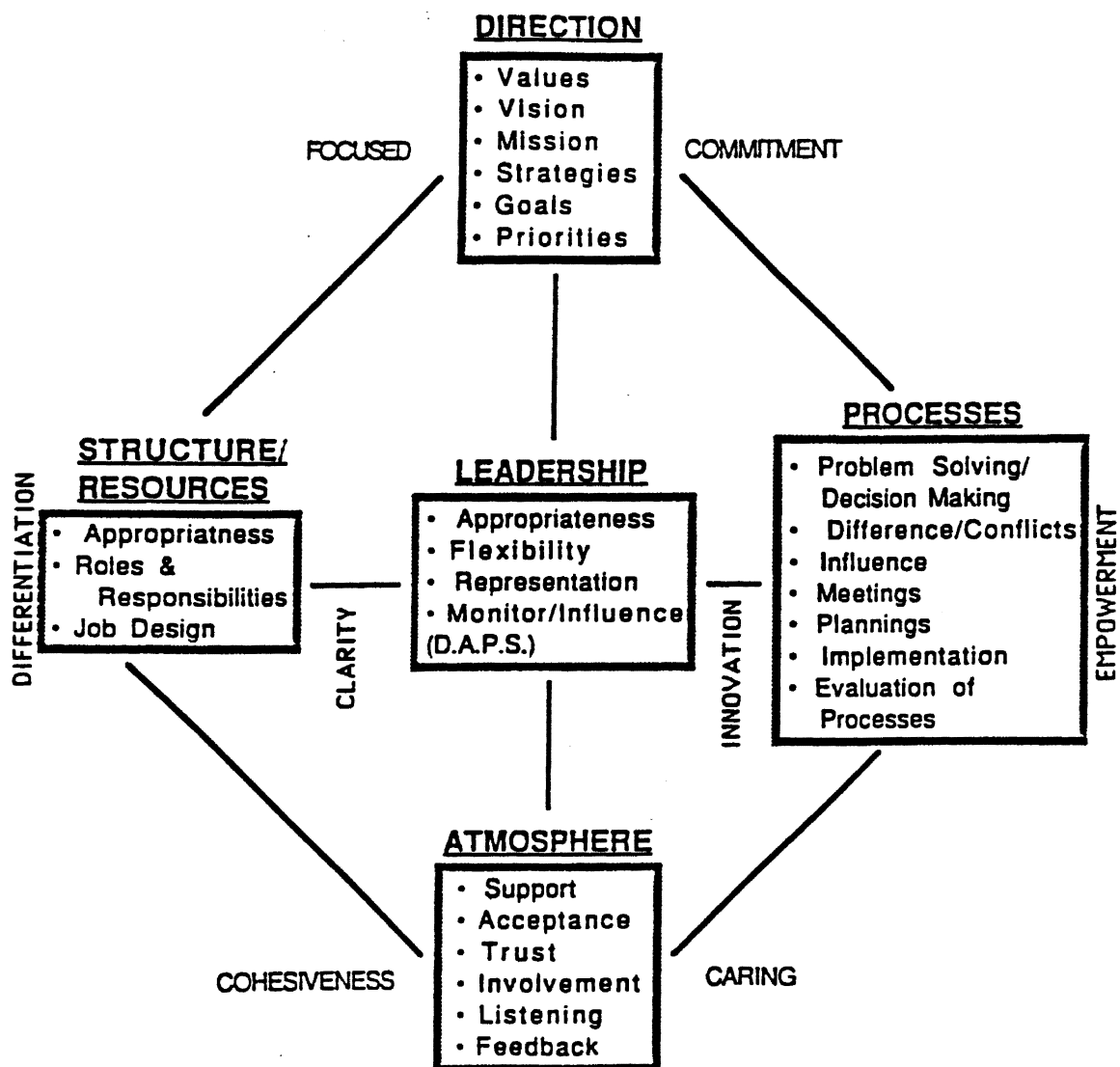
A MODEL OF AN EFFECTIVE TEAM

69

The team effectiveness model has proven to be an accurate picture of what effective teams do in the following five key areas.

1. **DIRECTION** - The team is clear about its values, vision, mission, strategies, goals, and priorities. These are cooperatively structured by the entire team, which results in a high degree of individual focus and commitment. The direction is felt to require stretching, but to be achievable. Energy is mainly devoted to the achievement of results.
2. **LEADERSHIP** - The team manager uses appropriate and flexible leadership styles to develop a team approach and allocates time to improving teamwork. Individuals other than the manager are given the opportunity to exercise leadership when their skills are appropriate to the situation facing the team. Participation and leadership are distributed among team members. The leader represents the team fairly and accurately to the rest of the organization and both monitors and influences the other four key areas in the model.
3. **ATMOSPHERE** - The team has developed an atmosphere in which people feel supported, accepted, included, trusted, and liked. Cohesion is maintained by this caring atmosphere, and feedback is both encouraged and listened to by team members. As a result, team members feel a sense of belonging and synergistic cohesiveness.
4. **STRUCTURE/RESOURCES** - The amount of structure and the number of procedures are viewed as appropriate by team members. Roles and responsibilities are clearly defined and differentiated among team members. Job design is changed so that the best possible match between individual goals and the team's goals can be achieved. Administrative procedures support a team approach.
5. **PROCESSES** - Decision-making procedures are matched to the situation. Consensus is sought for important decisions. Controversy, conflict, and differences are seen as a positive key to involvement, the quality and creativity of decisions, and the continuance of the group in good working condition. Communication is two-way, with emphasis on the accurate expression of both ideas and feelings. Ability and information determine the influence of team members. The members periodically evaluate the effectiveness of the team and decide how to improve its functioning.

TEAM EFFECTIVENESS MODEL



TEAM EFFECTIVENESS QUESTIONNAIRE

Fifty statements are listed below. Think about each statement in relation to your work team. Use the Team Effectiveness Answer Grid to respond to the statements. If you feel that a statement is basically true, mark a T by the appropriate number on the answer grid. If you feel that a statement is false, mark an F by the appropriate number on the answer grid.

Remember that the quality of the results is directly related to your own openness when answering the questions. This tool is meant to provoke thought, discussion, and feedback. Work methodically through all fifty questions and reach a decision to either put a T or F by the appropriate number on the answer grid.

Your answers will be anonymous, yet we ask you to write a 4-7 digit personal identification number on the answer grid for data tracking purposes. When you have completed the questionnaire total the columns on the answer grid and pass the answer grid to the facilitator.

When you see the following term(s), please keep these definitions in mind:

VISION: A description of the desired state, values, credos, or guiding principles for the team which includes but is not limited to how the team should treat the users of their service and each other.

MISSIONS: The specific task or business the team is charged with and the desired quality of its outputs.

GOALS: Individual and group-specific priorities for a given time period, usually a year.

STRATEGIES: A planned course of action and allocation of resources necessary for movement toward goals and the mission.

•• Turn the page and begin once you have read the instructions. ••

1. The values and goals of the group are not a satisfactory integration and expression of the relevant values and needs of the members.
2. The team leader is hard to influence.
3. All the interactions and problem-solving and decision-making activities of the group occur in a non-supportive atmosphere.
4. There is often confusion about assignments or unclear relationships between people on this team.
5. Differences or conflicts are denied, suppressed, or avoided at all costs.
6. Each member of my work group does not have a very clear idea of the group's vision.
7. The team manager is uncomfortable sharing leadership and decision making in a participative atmosphere.
8. People only pay attention to some team members and not to others.
9. There is often confusion in the team over who is responsible for what.
10. My work group often acts without planning enough.
11. There is a low commitment to our vision and goals.
12. The team manager does not adapt his/her style to changing circumstances.
13. People do not seem concerned with helping each other to get the job done; everyone is pulling in opposite directions or out for themselves.
14. Different people on the job are always asking me to do different things at the same time; as a result I feel I have to juggle too many balls at once.
15. After the team sits down to discuss something, I usually walk away wondering what we just did and what is supposed to happen next.
16. The tasks or objectives of the group are not well understood or accepted by the members.
17. People are not encouraged to work together towards a better team effort.
18. There is a lack of innovation, risk taking, imagination, or taking initiative in this team.
19. The team's manager and members spend little time in clarifying what they expect and need from one another.
20. Important issues are often "swept under the carpet" and not worked through.
21. Some team members are not really committed to the success of the team.
22. The team manager is not sufficiently sensitive to the different needs of each member.
23. Poor communications are evident in this team: people are afraid to speak up; we do not listen to each other or talk together.
24. The objectives of some individual team members do not gel with those of other members.

25. Attempts to review events critically are seen as negative and harmful.
26. There is no regular review of individual objectives and priorities.
27. The team manager gets little information about how the team sees his/her performance.
28. There is a lack of trust between manager and members or between the members of this team.
29. Team members are uncertain about their individual roles in relation to the team.
30. We function in a rather rigid manner and are not sufficiently flexible in using team resources.
31. We do not have an adequate way to establish our team's vision, objectives, and strategies.
32. The team leader does not represent the team adequately to the rest of the organization.
33. There are cliques and political maneuvering in the team.
34. The team does not have adequate administrative resources and procedures.
35. Little time is spent on reviewing what the team does, how it works, and how to improve it.
36. We do not work within clear strategic guidelines.
37. The team leader does not monitor or help us review our direction, team structure, or ability to work as a team.
38. Members often restrain their critical remarks to avoid "rocking the boat."
39. I often feel my job is not very satisfying or significant in its contribution to the team's efforts.
40. We often fail to finish things satisfactorily.
41. The objectives of our team are not really understood by everyone.
42. Team members are often unwilling to take the initiative for unassigned tasks.
43. A person would be a fool to be himself/herself in this team.
44. Members of this team seldom use one another as a resource.
45. The team is not good at learning from its mistakes.
46. The team's objectives have not been systematically related to the objectives of the whole organization.
47. As long as performance is satisfactory, the leader is not particularly concerned about the degree of teamwork displayed.
48. In group discussion, team members often hide their real motives.
49. We would be more effective as a unit if we were organized differently.
50. Creative ideas are not followed through to definite actions.

Personal I.D. # _____

Team I.D. # _____
(if applicable)**TEAM EFFECTIVENESS ANSWER GRID**

- In the grid shown here, there are 50 squares. Each one numbered to correspond to the statements on the questionnaire.
- If you feel that a statement is basically true, mark a T by the appropriate number on the answer grid. If you feel that a statement is basically false, mark an F by the appropriate number on the answer grid.
- Fill in the top line first, working from left to right; then fill in the second line, etc.
- When you have responded to all 50 statements, total the number of T's in each of the vertical columns, and write the total in the space shown at the bottom of the column.

	1	2	3	4	5
	6	7	8	9	10
	11	12	13	14	15
	16	17	18	19	20
	21	22	23	24	25
	26	27	28	29	30
	31	32	33	34	35
	36	37	38	39	40
	41	42	43	44	45
	46	47	48	49	50
Total T's					
	I	II	III	IV	V

2 West TEQ 12/8/92

Frequency of True Responses Corresponding to Specific Questions

	D	L	A	S	P
	1	2	3	4	5
0	0	0	0	0	0
0	6	7	8	9	10
0	11	12	13	14	15
0	16	17	18	19	20
0	21	22	23	24	25
2	26	27	28	29	30
3	31	32	33	34	35
0	36	37	38	39	40
0	41	42	43	44	45
2	46	47	48	49	50
1					

Summary Scores

Participants	Direction	Leadership	Atmosphere	Strctr./Rsrcs.	Processes	% OF 50
1300	1	3	1	2	1	14%
6353	2	3	0	1	0	8%
	3	0	0	0	0	0%
1313	4	1	0	2	1	10%
6293	5	0	0	4	1	16%
1212	6	5	2	6	4	38%
	7	0	0	0	0	0%
10770	8	1	3	2	0	12%
	9	0	0	0	0	0%
	10	0	0	0	0	0%
1965	11	1	2	4	5	28%
	12					
	13					
	14					
	15					
Total	8	14	8	21	12	
% of Total	11%	20%	11%	30%	17%	18%
Rank	4	2	4	1	3	

APPENDIX B

QUALITY QUEST MODULE SURVEY

Quality Quest

Challenge Quest is in the process of developing experiential training partnered with Total Quality Management concepts and processes called Quality Quest. We want to gather feedback from our customers and potential customers before we present this product/service.

Consider the Total Quality training needs of your company. Please read the following five module descriptions and rank the modules from 1 to 5. Write a 1 in the box next to the module you feel would be most beneficial and a 5 in the box next to the module you feel would be least beneficial.

Leadership for Quality (3 consecutive days)

Target Audience: Upper & middle management of same company

- Outcomes:
- Understanding of role and function of the steering committee
 - Understanding of the need for a clear mission/vision statement
 - Experience of the difference between traditional management and total quality management
 - Appreciation of leadership styles, the value of empowerment vs. control, of being dynamic rather than static
 - Renewed commitment to Quality

Team Building/Group Process (2 days)

Target Audience: Any upper, middle, or management, natural work groups, process action teams

- Outcomes:
- Better teams from pre-existing, intact teams
 - Role definition
 - Experience of effective teams, what they look and feel like
 - Understanding of the difference between a group and a team
 - Improved communication
 - Improved problem solving skills
 - Desire for continuous improvement
 - Increased team cohesiveness and interpersonal relationships
 - Experience with group processing and problem solving



Process Problem Solving (2 days)

Target Audience: Intact process action teams and/or steering committees, mixed intercompany groups

- Outcomes:
- Problem solving of an actual group problem
 - Better understanding of statistical process control
 - Experience and better understanding of 7 tools for problem solving
 - Understanding of the "just in time" phenomenon
 - Experience of data based decision making vs. non-data based decision making



Facilitator Training (2 days)

Target Audience: Small groups of 6 maximum: CEO's, quality advisors, facilitators from one company, new facilitators or experienced facilitators who are "stuck"

- Outcomes:
- Understanding of facilitator and team roles
 - Practice in facilitating and co-facilitating
 - Overview of group process, stages of groups by means of direct application and role playing
 - Experience in the art of giving and receiving feedback
 - Focus on and ability to do positive intervention



Conflict Management (2 consecutive days)

Target Audience: Team facilitators, team leaders, intact teams, mixed intercompany groups

- Outcomes:
- Positive view of conflict as a process for growth
 - Desire to strive for win/win vs. win/lose outcomes
 - Appreciation of individual differences
 - Dealing with the process (system) not the person
 - Deciding, "Is it worth it?" Getting consensus.

Comments/Suggestions:

Quality Quest Survey Results

	LEADERSHIP	TEAM BUILDING	PROBLEM SOLVING	FACILITATOR TRAINING	CONFLICT MANAGEMENT	COMPANY
1	1	2	3	4	5	ASQC
2	1	2	4	3	5	ASQC
3	1	2	4	3	5	ASQC
4	1	2	5	4	3	ASQC
5	1	2	5	4	3	ASQC
6	1	2	5	3	4	Williams Co.
7	1	2	5	3	4	ASQC
8	1	2	5	3	4	ASQC
9	1	3	2	5	4	ASQC
10	1	3	2	5	4	ASQC
11	1	3	2	4	5	ASQC
12	1	3	4	5	2	ASQC
13	1	3	4	2	5	ASQC
14	1	4	2	5	3	ASQC
15	1	4	2	5	3	ASQC
16	1	4	2	3	5	ASQC
17	1	5	2	4	3	ASQC
18	1	5	2	4	3	ASQC
19	2	1	3	5	4	ASQC
20	2	1	3	4	5	ASQC
21	2	1	3	4	5	ASQC
22	2	1	4	5	3	ASQC
23	2	1	4	3	5	ASQC
24	2	4	1	5	3	ASQC
25	2	5	3	1	4	?
26	3	1	2	5	4	QuikTrip
27	3	1	2	5	4	QuikTrip
28	3	1	2	5	4	ASQC
29	3	1	2	4	5	ASQC
30	3	1	5	2	4	Mazzio's
31	3	2	1	4	5	ASQC
32	4	3	1	5	2	Red Cross
33	4	3	2	5	1	PSO
34	4	5	1	2	3	ASQC
35	5	1	3	4	2	Frito-Lay
36	5	1	4	2	3	Ford
37	5	2	1	3	4	TD Williamson
38	5	4	1	3	2	ASQC
	82	93	108	145	142	

APPENDIX C

TEAMWORK TRAINING MODULE

Quality Quest Teamwork Module

The TEAMWORK module is designed for a TWO-DAY experience, at the end of which an Action Plan will be outlined by the team. The goals of the two days are:

- 1) By means of the TEQ results, to pinpoint and address problem areas that interfere with the team's effectiveness as it relates to Quality improvement.
- 2) To relate this team's TEQ results to the key areas of Direction, Leadership, Atmosphere, Structure / Resources, and Processes, and their relationship with Quality concepts.
- 3) To provide activities characteristic of outdoor adventure (ROPES) programs that lead to improvement of current work related perceptions and practices relative to the key issues of this team and to Quality.
- 4) By means of the DiSC inventory results, to provide team members opportunities to observe personality styles during the course experience and to carry insights into the workplace.

The two-day Agenda:

I. Orientation

An icebreaker activity. The intent of this activity is, among other things, to involve participants immediately in the experiential nature of Quality Quest. After such an activity as Group Juggle, the team should be introduced to the facilitators and then given an opportunity to "debrief" or "process" the experience. Participants can then be encouraged to write down any expectations and/or concerns they might have on Post-Its and place them on a poster to be reviewed periodically throughout the experience. An overview of the two days should be given at this point and the adventure-based learning philosophy outlined.

II. Review of TEQ and DiSC

Hand out DiSC name tags and verbally highlight the results. Answer any further questions and ask for added observations about personality styles. Hand out TEQ results. Review the data and relate the results to the five characteristics of an Effective Team:

- Direction
- Leadership
- Atmosphere
- Structure / Resources
- Processes

(see Appendix for detailed explanations)

III. Activities, Games and Initiatives

A series of games and initiatives are now offered that allow participants to experience each of the five characteristics of effective teams and their corresponding Quality concepts. Special emphasis should be placed on the key issues of the team where the greatest improvement is needed. Some definitions and "theory" can be presented prior to the activities or as part of the processing that immediately follows each activity. Opportunity should be provided for the team to experience their "typical" approach to a problem or situation - both as a group and as individuals; alternative approaches should be covered during the debrief and opportunity to try out "new behavior" given by repeating the same activity or another activity. On the following pages are a series of activities that have been deemed relevant to each of the five characteristics of an effective team.

Atmosphere

An effective team has developed an atmosphere in which people feel supported, accepted, included, trusted and liked. Cohesion is maintained by the caring atmosphere and feedback is both encouraged and listened to by team members. As a result, team members feel a sense of belonging and synergistic cohesiveness.

Definitions and Theories

Using DiSC results and definitions, discuss Group or Company Culture. I.e., the "Steadiness" Style is the natural culture builder.

Introduce Group Life Cycles, with emphasis on the "Norming" stage.

Activities:

AH, So! Waumpum. Everybody's It. Elbow Tag. People to People. Have You Ever? Hula Hoop Relay. Speed Rabbit. Discuss the value of humor and play in the workplace. When does it lead to productivity? When does it become unproductive? What level of cohesiveness was attained? How can such cohesiveness be encouraged in the workplace?

Trust Activities:

Wind in the Willows. Sherpa Walk. Yeah, But. Trio Trust Falls. Trust Fall. Review safety issues. Teach spotting. During processing discuss the elements that were needed for trust to grow: following procedures, communication, affirmations, asking for what one needed, etc. Review Atmosphere characteristics of an effective team.

Group Initiatives:

Tangle. One with the Rope. Compass Walk. Radioactive Isotopes. Washtub Willies. Punctured Drum. Don' Touch Me! Miracle Shoes. Rope Triangle. Giant Lizard's Tail. Swinging Log. Islands. All Aboard. Spider Web. Artesian Beams. The Wall. Discuss issues around the communication patterns the group exhibited. Recall the cycles of Forming, Storming, Norming and Performing that took place. Talk about the Directive and Influencing Styles as compared to Steady and Cautious Styles. Who gets heard? What is needed to get input from all involved?

Quality Concepts to Stress with Atmosphere:

Brainstorming - an important tool for eliciting ideas and including everyone's input leading to a sense of belonging and cohesion.

Company Culture - are team members aware of the culture of their organization? Do the behaviors of management promote an atmosphere in which everyone's ideas can be heard?

Conformance - Are individuals in the organization empowered to call to question those things that don't meet internal and external customer requirements?

Continuous Improvement - Are concerns and ideas about continually improving met with interest and acceptance from all members of the team? From internal suppliers? Do some members have higher or lower standards than others?

Customer-Supplier Partnership - Team members in a real sense are customers and suppliers to each other. There is an interdependence between them that requires accurate, and timely communication. Consideration for other people's time and needs will go a long way in creating the atmosphere needed to be effective decision makers and to ensure maintenance of good working conditions.

Employee Involvement - To what extent is this team invited to or willing to participate in the decisions regarding how their work areas operate? In suggesting improvements? In planning, in goal setting and in monitoring their own performance?

Empowerment - An important concept when considering the level of trust placed in employee's ability to decide or take action when problems arise.

Leadership - How well have organizational leaders communicated the vision of the organization to the members? To what extent have the members sought to understand and be motivated by the vision?

Plan-Do-Check- Act Cycle - An important process by which to involve members of the organization in effecting quality improvement.

Quality - To what extent is this team willing to develop an atmosphere in which they can achieve success in Quality? What specific things do they need to do to improve the atmosphere so that synergistic cohesion, and a sense of belonging are experienced by all?

Top-Management Commitment - Assuming that management is directly involved in the organizations quality improvement efforts, what is this team's responsiveness with regards giving feedback and input when it is requested? What hinders individuals from speaking up? What helps?

Total Quality Management - Does this team view TQM as a long-term commitment? A process, rather than a program? Open to training and education? Willing to spend the time in quality processes?

Zero Defects - Which performance standard does this team buy? The standard of "Zero Defects" or "close enough?"

Leadership

The team manager uses appropriate and flexible leadership styles to develop a team approach and allocates time to improving teamwork. Individuals other than the manager are given the opportunity to exercise leadership when their skills are appropriate to the situation facing the team. Participation and leadership are distributed among team members. The leader represents the organization and both monitors and influences the other four key areas in the model.

Definitions and Theories

A leader is someone who has a vision of that which does not yet exist and communicates that vision in a way that gets others involved in making that vision a reality. Total Quality requires the creation of a new corporate culture - a new value system. This requires skilled Leadership.

(excerpt from Total Quality Leadership by Mitchell R. Alegre, Carlson Learning Company Journal, Vol. 3, No. 2, 1992)

Using DiSC results and definitions, discuss possible leadership characteristics of each Style. What characteristics about each would apply to effective leadership? Explain the role of the Gatekeeper who can disseminate or withhold information and who can block or encourage other's to participate. Be alert to leadership styles that emerge throughout the course, especially the initiatives and the low elements.

Activities

Kinetic Name Game. Elbow Fruit Hop. Everybody's It! People to People. Amoeba Race. Hog Call. Role modeling by leaders and members will show up early. These games should bring to light the kinds of attitudes that team leaders or managers exhibit which sets the tone for the rest with regard to participation. Note the level of enthusiasm that members maintain that affects the group. With "Everybody's It" the opportunity exists for the team to stop functioning because everyone has the power to free up or freeze the process. Issues of power, control and getting even can emerge in "People to People." "Amoeba Race can demonstrate how well a team looks out for the needs of other members.

Trust Activities

Wind in the Willow. Trust Falls. Yeah, But. Sherpa Walk. Again, watch for how leaders model trust and show concern for others who may be reluctant. Do members do the same? This is a good place for participants to begin to get comfortable with asking for what they need. Note whether their requests heeded. Opportunities for promoting shared leadership arise in the "Sherpa Walk."

Initiatives

One with the Rope. 4 x 4. Miracle Shoes. Islands. The Wall. Don't Touch Me! Discuss how tasks were accomplished. How did leadership emerge? How did the leaders involve others? Was consensus ever sought? How were different skills and styles helpful in coming up with solutions? Were other members receptive to suggestions from the "non-leaders?" How flexible were the leaders when new approaches were suggested? Were they

able to be flexible with their Style? Were leaders interested in trying an experience again in order to improve? Was evaluation elicited by the leadership? Was accuracy of information stressed? Did the leadership encourage reflection on the mission and goals of the group?

Clay Exercise. With this exercise have the manager tell the group what to do and how. The amount of clay is limited, as well as the amount of time and the number of resources. Do the exercise again, but let the team do it the way they want. Give them a model stamped from a cookie cutter.

Card variation on the Red Bead Experiment. This exercise will demonstrate the manager's style and the team's response to pressure. Quality connections are obvious. Process this one well.

Grab Bag. Each participant will be responsible for an element or an activity or will have some responsibility to the team (like seeing that they have water.)

Quality concepts to emphasize with Leadership

Acceptable Quality Level - What standard of Quality were leaders willing to accept? How willing were they to push the team to improve? Were leaders willing to let other's desire for Quality push the group?

Managing for Quality - Big Q or Little q? Do leaders and members go "all out" for Quality in everything they do or only when competition is involved?

Brainstorming - Does the leadership use such techniques as this that involve everyone when attempting to problems solve? Are only the outspoken listened to?

Causes - Common/Special - Do leaders and members look for possible solutions by examining the common causes for variation that lay in the process or by blaming people? Are special causes looked for as possible solutions when the problem is not inherent in the process.

Company Culture - Does leadership remind the team of who they are and what they are about? Do members "walk the walk" as well as "talk the talk" of Quality and the values and behaviors inherent to the organization?

Continuous Improvement - Do members look to the small improvements as well as the "breakthroughs" that show progress is being made as ways to measure success?

Corrective Action - Are members free to implement solutions that lead to the elimination or reduction of a problem?

Cost of Poor Quality (Cost of Quality) - Do team leaders and members evaluate all categories of costs that associated with poor-quality products or services?

Internal failure costs, External failure costs, Appraisal costs and Prevention costs?

Customers - External/Internal - Are leaders and members aware of who their internal customers are as well as their external customers?

Customer Delight/Satisfaction - Are leaders especially interested in delighting customers and willing to empower others to do so? Is customer satisfaction a goal of this team or just a nice concept?

Defects/Dependability (Also, Imperfections, Blemishes and Nonconformity) - are defects taken seriously? Is there an expectation that products and services will operate and perform as required?

Diagnostic Journey and Remedial Journey - Is this investigative process utilized and understood by the leadership of this team?

Employee Involvement - Does the leadership of this team allow for member involvement in making decisions with regard to their area of operations, in making suggestions for improvements? Are members encouraged to participate in planning, goal setting and monitoring the team's performance? Do members respond or hold back?

Empowerment - Are team members empowered by their leadership to make decisions and take action to correct problems that arise? Do team members take the initiative for action or creative problems solving?

Force Field Analysis - Are process action team leaders aware of this as a tool and able to use it to arrive at ways for the team to decide which forces will help them reach their objectives?

14 Points - How familiar is management and leadership with these practices? At what level of "buy in" is this team?

Instant Pudding - Does this team have an "instant pudding" mentality? Or are members willing to seek the necessary education and put forth continuous effort toward achieving quality?

Leadership - Has a vision been communicated to this team by organizational leaders? Have they been provided the tools and knowledge needed to accomplish the vision?

Plan-Do-Check-Act Cycle - Has the team utilized this process in any of their improvements? What was their experience? Are there areas in the process that they tend to get "stuck"?

Prevention vs. Detection - Does this team tend to design Quality into their processes or inspect for Quality after the fact?

Quality - Is Quality (with a big Q) spoken and lived by this team and its leadership?

Quality Assurance/Quality Control - Are the necessary actions taken on a continual basis by this team to ensure quality products and services?

Quality Trilogy - Does this team understand and utilize this concept as a way of managing for Quality?

Right the First Time - How many "Cautious" Personality Styles are in this group? These folks are usually fastidious about "getting it right the first time." They may willingly provide real leadership in this area, as well as facts and figures to back up the "cost of poor-quality" for products or services that fail to measure up to specs.

Seven Tools of Quality - Are teams and PAC leaders familiar with these tools? Have they used them? What has been the results?

Supplier Quality Assurance - How confident is this team that their product or service fulfills it's customers needs and expectations? How often is corrective action needed? How familiar is this team with the activities needed to assure Quality?

Top Management Commitment - Is top-management taking part in this experience? Are they a normal part of the quality improvement process? Are they actively promoting Quality throughout the organization? Are the resources and training being adequately provided to organizational members so that Quality goals can be attained? Have members of this team been recognized and rewarded for their efforts in making Quality improvements?

TQM - Is this team involved in a TQM process in name only or is it being vigorously pursued throughout the organization? What organizational changes is this team experiencing as a result of the TQM process? How is that affecting the progress of this organization's Quality Quest?

Vital Few, Useful Many (80-20 Rule) - In relation to this team's own work area, are they aware of what the "vital few" causes of most of their problems are?

Zero Defects - In what areas is this team and its leadership willing to accept imperfection? In what areas are they unwilling to accept any defects? Do these expectations differ for individuals who are part of the team? What is the team expectation? Is "close enough" enough for everyone on this team? Who determines what is "close enough"?

Structure Resources

The amount of structure and the number of procedures are viewed as appropriate by team members. Roles and responsibilities are clearly defined and differentiated among team members. Job design is changed so that the best possible match between individual goals and the team's goals can be achieved. Administrative procedures support a team approach.

Definitions and Theories

The question that is often asked by organizational members is, "What power do I have?" In other words, what is it that they can impact? Members want to know what they are responsible for and where the lines of demarcation between roles lie. They are also concerned with where they get their information, how accurate is it and who can get them what they need to do their job.

Smart Rules are appropriate here to provide steps for reaching goals to get what they need and what things they can or cannot impact.

The team should have a clear understanding of who their **Customers and Suppliers** are.

Defining their **individual roles** enables members to clarify what it is they can impact.

Use the DiSC information to help participants understand the way they use their strengths and act out their roles within the organization. They may discover that their "natural" style is very different than the "adaptive" style they use in their work. Because they have adapted does not mean they are comfortable or fulfilled in their role.

A review of the **Norming Stage** of a Group's Life Cycle is appropriate here.

The **Cascading Effect** ** can be discussed here as it relates to Policy, Function and Deployment. ** Find out what this is and put in list of definitions.

Activities

Group Juggle. Have You Ever? Whampum. Prui. Speed Rabbit. Kinetic Name Game. Elbow Fruit Hop. Everybody's It! People to People. Amoeba Race. Hog Call. Ah, So! A clear component of most of these games is role definition. Having something someone else doesn't (like information) in "Pru" and self definitions in the "Kinetic Name Game" are worth pointing out. Where we are "positioned" and how difficult it can be to "keep too many things going at once" are natural connections to "People to People" and "Group Juggle," respectively. The need for administrative procedures to support a team approach is a natural for the latter. "What's my job here?" is humorously experienced in "Speed Rabbit" and "Ah, So!"

Trust Activities

Wind in the Willow. Trust Falls. Ships in the Ocean. Yeah, But. Sherpa Walk. Role definitions as to "fallers" and "spotters" can be pointed out here. A clear understanding of responsibilities is critical to these activities and asking specifically for what one needs from a spotter (as the supplier of safe landings) can clearly hit home. But even the "customer" as faller has responsibilities to the "supplier." "Ships in the Ocean" can be compared to "Trust Falls" with regard to the number of suppliers that may be necessary to accomplish a task. "Yeah, But. . ." can provide opportunity for participants to redesign the roles of group members to match individual goals with group goals. This and "Sherpa" can provide an experience of what it's

like to need more structure than one thought initially. The need to redefine roles and needs can take place throughout these activities.

Initiatives

Radioactive Isotopes. Spider Web. Blind Triangle. Personal Styles will emerge. Discuss the changes to personal styles that members had to make to achieve the group goal. Discuss roles and responsibilities that had to change. Did individual's jobs have to change to achieve the group goal? Were roles clearly defined? There is golden opportunity to discuss the need for sufficient and specific information to achieve the goal. If information is not forthcoming from "top-management" how does the team define its own processes? Its own roles?

Build a Structure. Everyone has different resources. Use blocks, Leggos, tinker toys or paper. (**Sam, fill this in a bit).

Topsy Turvy. (Note: Named by co-author of this manual and based on a "Hunger Banquet" experience that juxtaposes large, 3rd World populations who possess minimal resources with smaller, developed countries who have access to abundant resources. A real eye opener either way it's used.) Divide group into three disproportionate sizes (get ridiculous) and give the larger group the least amount of supplies, the medium group an adequate amount of supplies and the smallest group an overabundance of supplies. They all must accomplish the same task of your design. (Say nothing about "buying" "begging" or trading supplies from one another. Hopefully, stealing won't be an alternative.)

12 Bits Since each participant gets only some information, and the task is to create an information structure that makes sense. This is a "natural." While frustrating and time consuming, the group dynamics will become apparent and individual styles "pop" out.

4 x 4 A visual experience for demonstrating changes in structure to achieve the goal.

Quality Concepts to Emphasize with Structure/Resources

Acceptable Quality Level - Do the procedures and structures under which this team operates consistently make for services and products that meet acceptable Quality standards?

Common Causes - Are the procedures and structures common to this team the source of common causes for problems or defects that are inherent in the overall process over time?

Company Culture - Does the system of values, beliefs and behaviors inherent in this team's organization supportive of matching the strengths of the individual with organizational goals? Do administrative procedures support a team approach?

Continuous Improvement - Are the procedures and structures of this team subject to scrutiny and revision if or when they are found less than effective? Are efforts made to clarify and refine roles and responsibilities of team members? Are appropriate changes made in job design in order that individual goals are closely matched with the team's goals?

Cost of Quality - Are individual members aware of the link between their roles and responsibilities and the cost of poor quality? Are they aware of the cost of procedures that waste time and resources? Is the team approach viewed as a means of producing quality products and services in the long run or a hindrance to productivity in the short run?

External Customer - To whom outside the organization does this team supply information, services or product? How do this team's procedures, and the amount of structure affect the quality of the information, service or product that this team provides? Does what they supply meet the customer's expectations? Exceed them? To whom outside the organization is this team a customer. How do the procedures and structure of that supplier affect the ability of this team to meet quality goals?

Internal Customer - To whom inside the organization does this team supply information, services or product? How does this team's procedures and structure affect the quality goals of the internal customer whom they supply? Does what they supply meet the internal customer's expectations? Exceed them? To whom inside the organization is this team a customer? How do the procedures and structures of that internal supplier affect the ability of this team to meet quality goals?

Customer-Supplier Partnership and Supplier Quality Assurance - Are this team's customers and suppliers, both internal and external, seen as an extension of this team? Do the procedures of this team support the use of a few suppliers with long-term contracts? Do this team's procedures call for inspection of incoming product or services due to poor quality standards on the part of their suppliers? Is this team open to suggestions by their customers and suppliers to improve their processes and their products? Are suppliers aware of the quality requirements of this team? Is this team aware of the quality requirements of its internal and external customers?

Employee Involvement - Are the operative structures and procedures of this team a result of the input and suggestions of the members? Are jobs designed with individual and team strengths and goals in mind? Are the goals of the individual congruent with the goals of the team? Is individual input sought regarding clear-cut roles and responsibilities?

Leadership - Does organizational leadership provide sufficient education, and adequate resources for teams to reach their goals? Are procedures outlined by management supportive of the team approach?

Quality Assurance/Quality Control - Does this team experience difficulty with the quality of the products, or services they receive? Are there procedures in place whereby this team can ensure the quality of their resources?

Seven Tools for Quality - Do the procedures of this team include the tools for Quality that lead to an understanding their own processes and what is needed to improve them?

Top-Management Commitment and TQM - Are the Quality policies and goals outlined by top-management supportive of the team approach to the extent that the team can impact quality improvements in their work area?

Vital Few/Useful Many - Are the structures and procedures that are in place for this team vital to the overall Quality processes of the organization?

If not, what were to the stoppers?

Initiatives

Don't Touch Me! Punctured Drum. Card variation on Red Bead Experiment. 12 Bits. Create a Monster. One with the Rope. Compass Walk. Rope triangle. Islands. Artesian Beams. Swinging Log. Radioactive Isotopes. Marshmallows. Miracle shoes. Build a Structure. Most any initiative will highlight a team's Processes. They should be able to "see" the ways that they typically approach solving problem. The Personal Styles will be obvious. When the going gets tough, who stays with it? Who "leaves" the group? Help them understand the relationship of these responses to style. Help them experience the importance of maintenance of group members feelings, need for inclusion and input. Encourage "conflict" or "storming" to be viewed as an opportunity and an important part of creative decision making. Emphasize the importance of "accurate" information, and that to be effective, information needs to reach all members.

Quality Concepts to Emphasize with Processes:

All Decision Making Processes - Especially Brainstorming, Flowcharting, Force Field Analysis and the use of STATS tools. An important Quality process is the Plan-Do-Check-Act Cycle (PDCA).

Benchmarking - The acquiring and sharing of information with regard to standards of performance achieved by "best-in-class" companies. Use of benchmarks can help groups come to consensus with regard to their standards and the necessary steps to achieve them.

Continuous Improvement - An important concept with regard to the Quality of team processes. Reaching decisions effectively, communicating well and group maintenance will not come naturally or easily for most groups. An attitude of continually improving a team's processes will set the tone for that same attitude to be applied throughout the organization.

Corrective Action - It will be important that the conclusions, recommendations and input from a team's processes be not listened to and considered, but implemented. The group will be energized by their sense of effectiveness in the organization. It is the team leader's responsibility to represent the conclusions of the group to those who are in a position to make changes.

Cost of Quality - The cost of poor quality as it applies to teams is as critical as the cost that is reflected by poor quality products or services. Poorly functioning teams cost the organization real dollars and cost the individuals a great deal with regard satisfaction and motivation.

Customer-Supplier Partnership - Team members in a real sense are customers and suppliers to each other. There is an interdependence between them that requires accurate, and timely communication. Consideration for other people's time and needs will go a long way in creating the atmosphere needed to be effective decision makers and to ensure maintenance of good working conditions.

Employee Involvement - It is critical that team members be invited to participate in the decisions regarding how their work areas operate. If there is disagreement, the tools that would help them consider the data needed to make a decision are invaluable. When those who disagree on a means to an end are involved in creative problem solving, they are much more likely to help implement the solution.

Leadership - All team members have the responsibility for leadership in the group, offering ideas and being concerned about group maintenance.

Processes

Decision-making procedures are matched to the situation. Consensus is sought for important decisions. Controversy, conflict, and differences are seen as a positive key to involvement, the quality and creativity of decisions, and the continuance of the group in good working condition. Communication is two-way, with emphasis on the accurate expression of both ideas and feelings. Ability and information determine the influence of team members. The members periodically evaluate the effectiveness of the team and decide how to improve its functioning.

Definitions and Theories

Processes have to do with effective interactive skills that take place in meetings and during one on one exchanges. It concerns meeting planning and implementation and how a team goes about problem solving: reaching decisions, getting consensus, handling conflict and the quality of their communication and interaction - not just in meetings but in their daily exchanges. It includes the procedures they use to define their priorities, surface their ideas, build upon their differences and implement their plans. Effective use of meeting time and drawing out the ideas, talents and skills of individual members to arrive at creative solutions which motivate members to action are critical to effective processes. Listening skills and concern for differences that often involve dealing with feelings are important issues. A good look at the differences in Personal Styles will be important throughout this segment. All issues listed above will be affected by the differences between those who speak out easily and profusely and those who withhold or have less to say (the extroverts and the introverts). Task and group maintenance needs are important concepts to review.

Some important problem solving techniques include Brainstorming, Flowcharting, Force Field Analysis, the Decision Matrix and the use of STATS tools. An important Quality process is the Plan-Do-Check-Act Cycle (PDCA). Refer to M. Starcovich's TEAM Handbook for experiential ideas for process problem solving.

It will be important to know what processes this team is familiar with and whether or not the process works for them. (If it surfaces on the TEQ as a problem, obviously it doesn't.)

Introduce Conflict Management techniques if conflict is a problem. (See Getting to Yes by R. Fisher and W. Ury) An emphasis on the Storming Phase of a Group's Life Cycle is appropriate here.

Activities

Group Juggle. Giants, Elves & Wizards. Photofinish. Amoeba Race. These activities will help the group to "warm-up" to the idea of effective interaction, and that clear communication and the need for consensus are important to team efforts.

Trust Activities

Wind in the Willows. Ships in the Ocean. Trust Falls. It might be useful to have the group experience these in the above order and then discuss the process they went through to gain the trust needed to fall backwards into each other's arms. Discuss the information that was needed to come to a decision to try it. How was the two-way communication important? Were individual members free to communicate ideas and feelings with one another?

Prevention vs. Detection - Teams can prevent ineffective processes by using those that are designed to produce desired results. Teams can detect problem areas by looking at any processes that consistently prove ineffective.

Quality Circles (Process Action Teams) - The formation of such groups can be where problems are analyzed, processes used and recommendations made for continuous Quality improvement.

Seven Tools of Quality - Other tools that help teams within organizations to understand their processes in order to improve them: the Cause-and-Effect Diagram, Check Sheet, Control Chart, Flowchart, Histogram, Pareto Chart and Scatter Chart.

Top Management Commitment - An important element in the Quality Process of an organization. Without which teams will not be empowered to strive for Quality.

Direction

The team is clear about its values, vision, mission, strategies, goals and priorities. These are cooperatively structured by the entire team, which results in a high degree of individual focus and commitment. The direction is felt to require stretching, but to be achievable. Energy is mainly devoted to the achievement of results.

Definitions and Theories

One's value system and desire to defend those values are what motivates toward exceptional, high quality performance. For organizations it means answering the questions:

- What does our organization stand for? Not, what do we produce? Not, what are our goods and services? Not, What is our bottom line at the end of each quarter? But, what does our organization stand for?
- What are the values, principles and ethics that set our organization apart?
- Do our employees know our values and do they share them?
- Do our managers work by these values, or do they say one thing and practice another?

(an excerpt from An Organizational Attitude Toward Quality by Dr. Barbara Pate Glacel, Carlson Learning Company Journal, Vol. 3, No. 2, 1992)

The Guiding Principles of Quality are **Vision, Mission, and Goals**. It is imperative that the overall organizational Mission be clear and understood and incorporated in the mission of the team. Teams need to define their own mission and goals. **Smart Rules** will be important to review. **Personal Styles** can be looked at with regard to what individuals value. The important question becomes, do my personal values and goals match that of this group? What becomes compromised if they do not? Other concepts that might be discussed: the **Cascading Effect: Policy, Function and Deployment;** also **Hoshin**.

Activities

Photo finish. Giants, Elves and Wizards. Prui. Kinetic Name Game. When everyone in a group understands and accepts the goals, and has a hand in defining them, the processes tend to run smoothly and results are more easily attained. These activities can be used to help participants assess how clearly they understand the goals of the activity before beginning action. What values are placed on the outcomes, especially in "Photo finish?" Setting personal goals in the "Kinetic Name Game" will open the door for discussion around the importance of having a mental image to guide our goals.

Trust Activities

Wind in the Willows. Ships in the Ocean. Trust Falls. Sherpa's Day Off. To emphasize Mission and Goals, ask participants to apply their personal goal that was stated in the "Kinetic Name Game" to the experiences of being spotted or caught in the above activities. Stress being specific about how those goals are applicable. Focus and commitment to the goals are required. For example, someone with the goal of being alert to others needs (Concerned Carl) may want to be aware of ways he can really listen to what is being said,

verbally and non-verbally. "Go-For-It Georgia" may want to specifically ask for spotters to back up physically so the "fall" in "Willows" is more pronounced. Discuss how carrying that vision/goal into the experience made a difference.

"Sherpa" may want to let the team look toward a goal off in the distance and attempt to get there blindfolded, with no signals from friendly Sherpa. Discuss how seeing the goals and keeping it in mind during the process gave the group strength or determination to reach their destination.

Initiatives

Compass Walk. Again, to reach a goal, it helps if it is "seen" before an attempt is made to reach it. Discuss the difference between the group strategy and the individual efforts. Did the group define a strategy? Did the need to change the strategy alter the mission? Were members committed to reaching the goal enough to stick with it?

Mine Field. Those with "vision" lead those without "vision" through a series of obstacles. Group goals can be defined beforehand and a mission statement developed by the group. Focus is on creating a vision for those who don't have one through very specific communication of details.

Orienteering. Using a map and compass the team will have to problem solve getting past the barriers. This experience deals with Direction and Structure/Resources. Focus and commitment to achieving results while obstacles continue to get in the way are at the core of this experience.

Blind Triangle. The experience involves finding something that has not been seen before putting on a blindfold and then having to arrange the rope in a triangle. Discuss how many different "visions" individuals had with regard to what the triangle would look like. Did that vision change? What if the vision had been stated and agreed upon ahead of time? Were strategies discussed and agreed upon?

Don't Touch Me! This activity begins with a goal involving time. The strategies have to be determined and the goal met to the group's satisfaction. The goal is increasingly refined by *Benchmarking* the team's performance with that of another group. Here it is difficult to envision from the start just how the goal will be reached. But it becomes clearer with adaptation and with each new attempt, especially when the team is committed to reaching the goal.

Quality Concepts to Emphasize with Direction

Acceptable Quality Level - A mission and specific goals should also include the level of quality that is acceptable by the organization or the team. To begin with a vision and goal for quality can cause energy to be directed toward achieving results.

Benchmarking - An important concept for organizations to keep in mind when defining their mission and goals. The question becomes whose standards of quality do we have to match or better?

Big Q, Little Q - Do the mission and goals of the organization and the individual team include the Big Q - managing for Quality in all it's processes or is it limited?

Company Culture - The organizations values, beliefs and practices as defined by top management stress the individual commitment of its members and requires St-r-e-tch-ing into Quality at all levels. But not only is it defined by top management, it is practiced by top management!

Continuous Improvement - A value to be held like a banner. It doesn't happen quickly, there are no "Quick Fixes" the goal and the strategy is incremental and breakthrough improvements.

Corrective Action - A priority in developing strategies toward reaching a

defined goal can include the reduction or elimination of identified problems. Such strategies are developed as needed so as to address the problem as it becomes apparent.

Cost of Poor Quality - It can become the goal of the organization to eliminate or reduce the costs of poor quality when defining its mission and developing its strategies. Individuals are committed to reducing such costs.

Customer Satisfaction/Delight - The mission, vision, principles, needs and values of the customer (both internal and external) needs to be understood. When Organizational mission, vision, principles, needs and values are in alignment with those of its customers Quality work will be the result. The goal of Quality requires some stretching to achieve. But it is attainable. What results does a team want? What does customer satisfaction look like? When will they know they have achieved the desired results? Is such satisfaction and delight always measured by increased revenue?

Employee Involvement - An organization members can help structure the mission and vision of the organization, and most certainly ought to be involved in defining their own strategies, goals and priorities.

Empowerment - When members are clear about the values, vision and mission of the organization, and they are empowered to make decisions and take action to achieve those goals, it is more likely that they will be personally committed to the vision and mission as it is defined.

Instant Pudding/Kaizen - Effort and education is needed to achieve the Goal of Quality. Patience and "going back to the drawing board" are necessary to make quality improvements over time. A direction implies a process, a journey. Worthwhile goals are not arrived at quickly.

Leadership - The source of the values, mission and vision, the strategies and priorities to achieve the goals as defined starts with the leadership of the organization. The members themselves can exercise leadership at all levels to reach Quality objectives, but they too need to be clear about their own mission, vision, values and principles. If considered irrelevant by top-management, members efforts will produce frustration and apathy.

Quality - A concept that is integral to any Mission statement, or any long-term or short-term planning of an organization that espouses a Total Quality process.

Quality Trilogy - A three pronged approach that can be built into an organization's or a team's strategies for implementing a Quality process regardless of the task.

Right the First Time - Can be viewed as a value that ensures Quality at every step in the organization's process and at all levels.

Top-Management Commitment - A necessary component in defining values, and determining the vision, mission, strategies, goals and priorities of an organization.

Total Quality Management - See Quality.

Zero Defects - A goal toward which to strive.

APPENDIX D

WRITTEN QUESTIONNAIRE INSTRUCTIONS

Please take five minutes to complete the following questionnaire.

Answer all the statements on the answer sheet in the back as it applies to your 2 west work team.

Scott Nemmo is the team leader/manager.

Follow the directions (especially the personal identification part) and return the questionnaire answer sheet to the Challenge Quest office no later than October 20th.

Scott Nemmo
Connie Schadel
Machelle Anderson
Ann Krause
Betty Law

APPENDIX E

MONTHLY INCIDENT REPORTS

MONTHLY INCIDENT REPORT TO UNIT/PROGRAM

Unit: T. West Date: 8-21-98

of Staff Incident Reports: 10 # of Patient Incident Reports: 4

Total # of incident reports agency wide: 110 Total # of incidents: 114 This unit: 18

1.	AWOL	---
2.	Attempted AWOL	---
3.	AMA	---
4.	Allegations of Abuse	---
5.	Contraband	---
6.	Injury During R/S	<u>1</u>
7.	Injury - Recreational	<u>1</u>
8.	Accidental Inj. (Not Rec.)	---
9.	Injury Self Inflicted	---
10.	Physical Aggression	<u>1</u>
11.	Phys. Aggression w/Injury	<u>3</u>
12.	Medical Episode	---
13.	Fire	---
14.	Theft	---
15.	Property Damage	<u>3</u>
16.	Other	<u>8</u>
17.	Auto Accident	---
18.	Medication Error	<u>1</u>
19.	Sexual Misconduct	---

Location of Incidents:

Office: _____	Classroom: _____
Storeroom: _____	Gym: <u>2</u>
Restroom: _____	Seclusion room: _____
Reception room: _____	Day room: <u>11</u>
Staff Lounge: _____	Bedroom: _____
Laundry room: _____	Nurses station: <u>1</u>
Pharmacy: _____	Medroom: _____
Ceiling: _____	Hallway: <u>1</u>
Sidewalk: _____	Parking lot: _____
Loading dock: _____	Stairway: _____
Facility grounds: _____	Playground: _____
Therapy office: _____	Off grounds: _____
EATD rooms: _____	Cafeteria: _____
ICU: <u>2</u>	

Average staff to patient ratio during incidents: 2/4

Trends: high rate of reports involving covers
conflicts in scheduling

MONTHLY INCIDENT REPORT TO UNIT/PROGRAM

Unit: TI West Date: 8-21-98

of Staff Incident Reports: 9 # of Patient Incident Reports: 6

Total # of incident reports agency wide: 110 Total # of incidents: 114 This unit: 15

1.	AWOL	<u>1</u>
2.	Attempted AWOL	<u> </u>
3.	AMA	<u> </u>
4.	Allegations of Abuse	<u> </u>
5.	Contraband	<u>1</u>
6.	Injury During R/S	<u> </u>
7.	Injury - Recreational	<u> </u>
8.	Accidental Inj. (Not Rec.)	<u>1</u>
9.	Injury Self Inflicted	<u> </u>
10.	Physical Aggression	<u>4</u>
11.	Phys. Aggression w/Injury	<u>3</u>
12.	Medical Episode	<u> </u>
13.	Fire	<u> </u>
14.	Theft	<u> </u>
15.	Property Damage	<u> </u>
16.	Other	<u>4</u>
17.	Auto Accident	<u> </u>
18.	Medication Error	<u>1</u>
19.	Sexual Misconduct	<u> </u>

Location of Incidents:

Office: <u> </u>	Classroom: <u> </u>
Storeroom: <u> </u>	Gym: <u>1</u>
Restroom: <u> </u>	Seclusion room: <u> </u>
Reception room: <u> </u>	Day room: <u>6</u>
Staff Lounge: <u> </u>	Bedroom: <u>2</u>
Laundry room: <u> </u>	Nurses station: <u> </u>
Pharmacy: <u> </u>	Medroom: <u> </u>
Ceiling: <u> </u>	Hallway: <u>2</u>
Sidewalk: <u> </u>	Parking lot: <u> </u>
Loading dock: <u> </u>	Stairway: <u> </u>
Facility grounds: <u>1</u>	Playground: <u> </u>
Therapy office: <u> </u>	Off grounds: <u> </u>
EATD rooms: <u> </u>	Cafeteria: <u> </u>
ICU: <u>3</u>	

Average staff to patient ratio during incidents: 2/4

Trends: nil

MONTHLY INCIDENT REPORT TO UNIT/PROGRAM

Unit: I West Date: 9-9-92

of Staff Incident Reports: 9 # of Patient Incident Reports: 8

Total # of incident reports agency wide: 90 Total # of incidents: 36 This unit: 16

1.	AWOL	<u>1</u>
2.	Attempted AWOL	<u>1</u>
3.	AMA	<u>1</u>
4.	Allegations of Abuse	<u>1</u>
5.	Contraband	<u>1</u>
6.	Injury During R/S	<u>2</u>
7.	Injury - Recreational	<u>1</u>
8.	Accidental Inj. (Not Rec.)	<u>1</u>
9.	Injury Self Inflicted	<u>1</u>
10.	Physical Aggression	<u>2</u>
11.	Phys. Aggression w/Injury	<u>3</u>
12.	Medical Episode	<u>1</u>
13.	Fire	<u>1</u>
14.	Theft	<u>1</u>
15.	Property Damage	<u>1</u>
16.	Other	<u>5</u>
17.	Auto Accident	<u>1</u>
18.	Medication Error	<u>1</u>
19.	Sexual Misconduct	<u>1</u>

Location of Incidents:

Office: _____	Classroom: _____
Storeroom: _____	Gym: _____
Restroom: _____	Section room: _____
Reception room: _____	Day room: <u>5</u>
Staff Lounge: _____	Bedroom: _____
Laundry room: _____	Nurses station: <u>1</u>
Pharmacy: _____	Medroom: _____
Ceiling: _____	Hallway: <u>1</u>
Sidewalk: _____	Parting lot: _____
Loading dock: _____	Stairway: _____
Facility grounds: _____	Playground: _____
Therapy office: _____	Off grounds: <u>1</u>
EATD room: _____	Cafeteria: _____
ICU: <u>2</u>	O.T. Room <u>1</u>

Average staff to patient ratio during incidents: 2/8

Trends: _____

MONTHLY INCIDENT REPORT TO UNIT/PROGRAM

Unit: II West Date: 9-9-92

of Staff Incident Reports: 4 # of Patient Incident Reports: 2

Total # of incident reports agency wide: 80 Total # of incidents: 36 This unit: 12

- 1. AWOL _____
- 2. Attempted AWOL _____
- 3. AMA _____
- 4. Allegations of Abuse _____
- 5. Contraband _____
- 6. Injury During R/S 2
- 7. Injury - Recreational 2
- 8. Accidental Inj. (Not Rec.) 2
- 9. Injury Self Inflicted _____
- 10. Physical Aggression 1
- 11. Phys. Aggression w/Injury 2
- 12. Medical Episode _____
- 13. Fire _____
- 14. Theft _____
- 15. Property Damage 1
- 16. Other 1
- 17. Auto Accident _____
- 18. Medication Error 2
- 19. Sexual Misconduct _____

Location of Incidents:

- Office: _____ Classroom: _____
- Storeroom: _____ Gym: _____
- Restroom: _____ Seclusion room: _____
- Reception room: _____ Day room: 2
- Staff Lounge: _____ Bedroom: _____
- Laundry room: _____ Nurses station: _____
- Pharmacy: _____ Medroom: _____
- Ceiling: _____ Hallway: _____
- Sidewalk: _____ Parking lot: _____
- Loading dock: _____ Stairway: _____
- Facility grounds: _____ Playground: 2
- Therapy office: _____ Off grounds: _____
- EATD rooms: _____ Cafeteria: _____
- ICU: 1 2 West Library 1

Average staff to patient ratio during incidents: 3/6

Trends: n/a

MONTHLY INCIDENT REPORT TO UNIT/PROGRAM

Unit: West Date: 10/14/98

of Staff Incident Reports: 14 # of Patient Incident Reports: 5

Total # of incident reports agency wide: 98 Total # of incidents: 108 This unit: 19

1.	AWOL	<u>2</u>
2.	Attempted AWOL	_____
3.	AMA	_____
4.	Allegations of Abuse	_____
5.	Contraband	_____
6.	Injury During R/S	<u>3</u>
7.	Injury - Recreational	_____
8.	Accidental Inj. (Not Rec.)	_____
9.	Injury Self Inflicted	<u>1</u>
10.	Physical Aggression	<u>2</u>
11.	Phys. Aggression w/Injury	<u>4</u>
12.	Medical Episode	_____
13.	Fire	<u>1</u>
14.	Theft	_____
15.	Property Damage	_____
16.	Other	<u>5</u>
17.	Auto Accident	_____
18.	Medication Error	<u>1</u>
19.	Sexual Misconduct	_____

Location of Incidents:

Office: _____	Classroom: _____
Storeroom: _____	Gym: _____
Restroom: _____	Seclusion room: _____
Reception room: _____	Day room: <u>7</u>
Staff Lounge: _____	Bedroom: <u>2</u>
Laundry room: _____	Nurses station: _____
Pharmacy: _____	Medroom: _____
Ceiling: _____	Hallway: <u>1</u>
Sidewalk: _____	Parking lot: _____
Loading dock: _____	Stairway: _____
Facility grounds: _____	Playground: _____
Therapy office: _____	Off grounds: <u>2</u>
EATD rooms: _____	Cafeteria: <u>1</u>
ICU: <u>4</u>	

Average staff to patient ratio during incidents: 4/7

Trends: n/a

MONTHLY INCIDENT REPORT TO UNIT/PROGRAM

Unit TT West Date 10/14/92

of Staff Incident Reports 4 # of Patient Incident Reports 4

Total # of incident reports agency wide 98 Total # of incidents 108 This unit 4

- | | | |
|-----|----------------------------|----------|
| 1. | AWOL | _____ |
| 2. | Attempted AWOL | _____ |
| 3. | AMA | _____ |
| 4. | Allegations of Abuse | _____ |
| 5. | Contraband | _____ |
| 6. | Injury During R/S | <u>3</u> |
| 7. | Injury - Recreational | _____ |
| 8. | Accidental Inj. (Not Rec.) | _____ |
| 9. | Injury Self Inflicted | _____ |
| 10. | Physical Aggression | _____ |
| 11. | Phys. Aggression w/Injury | _____ |
| 12. | Medical Episode | _____ |
| 13. | Fire | _____ |
| 14. | Theft | _____ |
| 15. | Property Damage | _____ |
| 16. | Other | _____ |
| 17. | Auto Accident | _____ |
| 18. | Medication Error | _____ |
| 19. | Sexual Misconduct | _____ |

Location of incidents:

Office: _____	Classroom: _____
Storeroom: _____	Gym: _____
Restroom: <u>1</u>	Seclusion room: _____
Reception room: _____	Day room: _____
Staff Lounge: _____	Bedroom: _____
Laundry room: _____	Nurses station: <u>1</u>
Pharmacy: _____	Medroom: _____
Ceiling: _____	Hallway: <u>1</u>
Sidewalk: _____	Parking lot: _____
Loading dock: _____	Stairway: _____
Facility grounds: _____	Playground: <u>1</u>
Therapy office: _____	Off grounds: _____
EATD rooms: _____	Cafeteria: <u>1</u>
ICU: <u>2</u>	

Average staff to patient ratio during incidents: 2/3

Trends: n/a

October 92 MONTHLY INCIDENT REPORT TO UNIT/PROGRAM

CONFIDENTIAL

Unit: 1 West Date: 11/5/92

of Staff Incident Reports: 11 # of Patient Incident Reports: 4

Total # of incident reports agency wide: 68 Total # of incidents: 74 This unit: 15

1.	AWOL	_____
2.	Attempted AWOL	_____
3.	AMA	_____
4.	Allegations of Abuse	_____
5.	Contraband	_____
6.	Injury During R/S	<u>2</u>
7.	Injury - Recreational	_____
8.	Accidental Inj. (Not Rec.)	_____
9.	Injury Self Inflicted	_____
10.	Physical Aggression	_____
11.	Phys. Aggression w/injury	<u>1</u>
12.	Medical Episode	_____
13.	Fire	_____
14.	Theft	_____
15.	Property Damage	_____
16.	Other	<u>5</u>
17.	Auto Accident	_____
18.	Medication Error	<u>4</u>
19.	Sexual Misconduct	<u>1</u>

Location of Incidents:

- | | |
|----------------------------|-----------------------|
| Office: _____ | Classroom: _____ |
| Storeroom: _____ | Gyre: _____ |
| Restroom: _____ | Seclusion room: _____ |
| Reception room: _____ | Day room: _____ |
| Staff Lounge: _____ | Bedroom: <u>1</u> |
| Laundry room: _____ | Nurses station: _____ |
| Pharmacy: _____ | Medroom: _____ |
| Ceiling: _____ | Hallway: _____ |
| Sidewalk: _____ | Parking lot: _____ |
| Loading dock: _____ | Stairway: _____ |
| Facility grounds: <u>2</u> | Playground: _____ |
| Therapy office: _____ | Off grounds: _____ |
| EATD room: _____ | Cafeteria: _____ |
| ICU: <u>4</u> | |

Average staff to patient ratio during incidents: 4/5

Trends: n/a

October 92 MONTHLY INCIDENT REPORT TO UNIT/PROGRAM

CONFIDENTIAL

Unit 2 West Date 11/5/92

of Staff Incident Reports 3 # of Patient Incident Reports 1

Total # of incident reports agency wide 65 Total # of incidents 74 This unit 4

- 1. AWOL _____
- 2. Attempted AWOL _____
- 3. AMA _____
- 4. Allegations of Abuse _____
- 5. Courtroom _____
- 6. Injury During R/S _____
- 7. Injury - Recreational _____
- 8. Accidental Inj. (Not Rec.) 1
- 9. Injury Self Inflicted _____
- 10. Physical Aggression 1
- 11. Phys. Aggression w/Injury _____
- 12. Medical Episode _____
- 13. Fire _____
- 14. Theft _____
- 15. Property Damage 1
- 16. Other 1
- 17. Auto Accident _____
- 18. Medication Error _____
- 19. Sexual Misconduct _____

Location of incidents:

- Office: _____ Classroom: _____
- Storeroom: _____ Gym: _____
- Restroom: _____ Seclusion room: _____
- Reception room: _____ Day room: _____
- Staff Lounge: _____ Bed room: _____
- Laundry room: _____ Nurse station: _____
- Pharmacy: _____ Med room: _____
- Ceiling: _____ Hallway: _____
- Sidewalk: _____ Parking lot: _____
- Loading dock: _____ Stairway: _____
- Facility grounds: _____ Playground: _____
- Therapy office: _____ Off grounds: _____
- EATD room: _____ Cafeteria: _____
- ICU: 1 Report cause 1

Average staff to patient ratio during incidents: +1/3

Trends: n/a

November 92 MONTHLY INCIDENT REPORT TO UNIT/PROGRAM

CONFIDENTIAL

Unit: West Date: 12-7-92

of Staff Incident Reports: 5 # of Patient Incident Reports: 4

Total # of incident reports agency wide: 75 Total # of incidents: 21 This unit: 10

1.	AWOL	_____
2.	Attempted AWOL	_____
3.	AMA	_____
4.	Allegations of Abuse	_____
5.	Contraband	_____
6.	Injury During RS	<u>2</u>
7.	Injury - Recreational	_____
8.	Accidental Inj. (Not Rec.)	<u>1</u>
9.	Injury Self Inflicted	_____
10.	Physical Aggression	_____
11.	Phys. Aggression w/injury	<u>1</u>
12.	Medical Episode	_____
13.	Fire	_____
14.	Theft	<u>1</u>
15.	Property Damage	_____
16.	Other	<u>2</u>
17.	Auto Accident	_____
18.	Medication Error	<u>1</u>
19.	Sexual Misconduct	_____

Location of Incidents:

Office: _____	Classroom: _____
Storeroom: _____	Gym: _____
Restroom: _____	Seclusion room: _____
Reception room: _____	Day room: <u>5</u>
Staff Lounge: _____	Bedroom: <u>1</u>
Laundry room: _____	Nurses station: _____
Pharmacy: _____	Medroom: _____
Ceiling: _____	Hallway: _____
Sidewalk: _____	Parking lot: _____
Loading dock: _____	Stairway: _____
Facility grounds: _____	Playground: _____
Therapy office: _____	Off grounds: <u>1</u>
EATD room: _____	Cafeteria: _____
ICU: <u>1</u>	Exam Room: <u>1</u>

Average staff to patient ratio during incidents: 3/9

Trends: _____

November 98 MONTHLY INCIDENT REPORT TO UNIT PROGRAM

CONFIDENTIAL

Unit: 2 West Date: 12-7-98

of Staff Incident Reports: 3, # of Patient Incident Reports: 5

Total # of incident reports agency wide: 75 Total # of incidents: 81 This unit: 8

1.	AWOL	_____
2.	Attempted AWOL	_____
3.	AMA	<u>1</u>
4.	Allegations of Abuse	_____
5.	Contraband	_____
6.	Injury During RS	<u>2</u>
7.	Injury - Recreational	<u>1</u>
8.	Accidental Inj. (Not Rec.)	_____
9.	Injury Self Inflicted	_____
10.	Physical Aggression	_____
11.	Phys. Aggression w/injury	_____
12.	Medical Episode	_____
13.	Fire	_____
14.	Theft	_____
15.	Property Damage	<u>3</u>
16.	Other	<u>1</u>
17.	Auto Accident	_____
18.	Medication Error	_____
19.	Sexual Misconduct	_____

Location of Incidents:

Office: _____	Classroom: _____
Storeroom: _____	Gym: _____
Restroom: _____	Seclusion room: _____
Reception room: _____	Dry room: _____
Staff Lounge: _____	Bedroom: <u>3</u>
Laundry room: _____	Nurses station: _____
Pharmacy: _____	Medroom: _____
Celling: _____	Hallway: _____
Sidewalk: _____	Parking lot: _____
Loading dock: _____	Stairway: _____
Facility grounds: _____	Playground: <u>1</u>
Therapy office: _____	Oil grounds: _____
EATD rooms: _____	Cafeteria: _____
ICU: <u>2</u>	

Average staff to patient ratio during incidents: 3/1

Trends: _____

December 98 MONTHLY INCIDENT REPORT TO UNIT/PROGRAM

CONFIDENTIAL

Unit: 1 Unit Date: 1-4-98

of Staff Incident Reports: 2 # of Patient Incident Reports: 5

Total # of incident reports agency wide: 75 Total # of incidents: 87 This unit: 7

- 1. AWOL _____
- 2. Attempted AWOL _____
- 3. AMA _____
- 4. Allegations of Abuse _____
- 5. Contraband _____
- 6. Injury During R/S 2
- 7. Injury - Recreational _____
- 8. Accidental Inj. (Not Rec.) 2
- 9. Injury Self Inflicted 1
- 10. Physical Aggression _____
- 11. Phys. Aggression w/injury _____
- 12. Medical Episode _____
- 13. Fire _____
- 14. Theft _____
- 15. Property Damage 1
- 16. Other _____
- 17. Auto Accident _____
- 18. Medication Error _____
- 19. Sexual Misconduct _____

Location of Incidents:

- | | |
|-------------------------|-----------------------|
| Office: _____ | Classroom: _____ |
| Storage room: _____ | Gym: _____ |
| Restroom: <u>1</u> | Seclusion room: _____ |
| Reception room: _____ | Day room: <u>2</u> |
| Staff Lounge: _____ | Bedroom: _____ |
| Laundry room: _____ | Nurses station: _____ |
| Pharmacy: _____ | Metroon: _____ |
| Celling: _____ | Hallway: <u>1</u> |
| Sidewalk: _____ | Parking lot: _____ |
| Loading dock: _____ | Stairway: _____ |
| Facility grounds: _____ | Playground: _____ |
| Therapy office: _____ | Off grounds: <u>1</u> |
| EATD rooms: _____ | Cafeteria: <u>1</u> |
| ICU: <u>1</u> | |

Average staff to patient ratio during incidents: 3/8

Trends: nil

December 92 MONTHLY INCIDENT REPORT TO UNIT/PROGRAM

CONFIDENTIAL

Unit: 2 West Date: 1-4-93

of Staff Incident Reports: 1, # of Patient Incident Reports: 3

Total # of incident reports agency wide: 75 Total # of incidents: 87 This unit: 4

- 1. AWOL _____
- 2. Attempted AWOL 1
- 3. AMA 1
- 4. Allegations of Abuse _____
- 5. Contraband _____
- 6. Injury During R/S _____
- 7. Injury - Recreational _____
- 8. Accidental Inj. (Not Rec.) _____
- 9. Injury Self Inflicted _____
- 10. Physical Aggression 1
- 11. Phys. Aggression w/injury 1
- 12. Medical Episode _____
- 13. Fire _____
- 14. Theft _____
- 15. Property Damage _____
- 16. Other _____
- 17. Auto Accident _____
- 18. Medication Error _____
- 19. Sexual Misconduct _____

Location of Incidents:

- | | |
|-------------------------|-----------------------|
| Office: _____ | Classroom: _____ |
| Storeroom: _____ | Gym: _____ |
| Restroom: _____ | Seclusion room: _____ |
| Reception room: _____ | Day room: <u>1</u> |
| Staff Lounge: _____ | Bedroom: <u>2</u> |
| Laundry room: _____ | Nurses station: _____ |
| Pharmacy: _____ | Medroom: _____ |
| Ceiling: _____ | Hallway: <u>1</u> |
| Sidewalk: _____ | Parking lot: _____ |
| Loading dock: _____ | Stairway: _____ |
| Facility grounds: _____ | Playground: _____ |
| Therapy office: _____ | Off grounds: _____ |
| EATD room: _____ | Cafeteria: _____ |
| ICU: _____ | |

Average staff to patient ratio during incidents: 3/2

Trends: n/a

APPENDIX F
IRB APPROVAL FORM

OKLAHOMA STATE UNIVERSITY
 INSTITUTIONAL REVIEW BOARD
 FOR HUMAN SUBJECTS RESEARCH

Proposal Title: OUTDOOR TRAINING AS A PART OF A CORPORATE QUALITY IMPROVE-
MENT PROGRAM

Principal Investigator: Dr. Gary Oakley, Karin Westerlund

Date: May 5, 1992 IRB # ED-92-053

 This application has been reviewed by the IRB and

Processed as: Exempt [] Expedite [X] Full Board Review []

Renewal or Continuation []

Approval Status Recommended by Reviewer(s):

Approved [X]

Deferred for Revision []

Approved with Provision []

Disapproved []

Approval status subject to review by full Institutional Review Board at
 next meeting, 2nd and 4th Thursday of each month.

 Comments, Modifications/Conditions for Approval or Reason for Deferral or
 Disapproval:

Provisions received and accepted.

Signature: *Maria L. Tilley*

Chair of Institutional Review Board

Date: June 18, 1992

VITA

Karin Elsie Westerlund

Candidate for the Degree of

Master of Science

Thesis: OUTDOOR TRAINING AS A PART OF A CORPORATE QUALITY
IMPROVEMENT PROGRAM

Major Field: Occupational and Adult Education

Biographical:

Personal Data: Born in Oskaloosa, Iowa, February 1, 1949, the daughter of Dick D. and Marjorie A. Van Zante. Married to Rodney S. Westerlund.

Education: Graduate from Pella High School, Pella, Iowa, in May 1967; received Bachelor of Science Degree in Outdoor Recreation Resources from Iowa State University at Ames, Iowa, in November, 1971; received Fellow, Life Office Management, designation in May, 1983; completed requirements for the Master of Science degree at Oklahoma State University in May, 1993.

Professional Experience: Health Claims Approver, Metropolitan Life Insurance, April, 1973 to March, 1981; Personnel Specialist, Metropolitan Life Insurance, April, 1981 to February, 1982; Health Claims Consultant, Metropolitan Life Insurance, February, 1982 to August, 1983; Computer Trainer, Metropolitan Life Insurance, August, 1983 to August, 1984; Telemarketing Supervisor, Metropolitan Life Insurance, August, 1984 to June, 1986; Health Claims Supervisor, Metropolitan Life Insurance, June, 1986 to February, 1988; Corporate Trainer, Metropolitan Life Insurance, February, 1988 to April, 1992; Quality Coordinator/Consumer Relations Supervisor, April 1992 to May, 1993.

Certified Trainer for Wilson Learning's Counselor Relations and Social Styles Programs; Blessing White's MPG (Managing Personal Growth) Program; Zenger Miller's FrontLine Leadership Program; Pacific Learning's Transition to Supervision Program; and Challenge Quest's ROPES Program.