

**A CASE STUDY ON THE TRAINING ISSUES RELATED TO LEADERS
OF SELF-MANAGING TEAMS IN A REDESIGN PLANT**

by

Asela Gunawardena

Thesis submitted to the Faculty of the
Virginia Polytechnic Institute and State University
in partial fulfillment of the requirements for the degree of

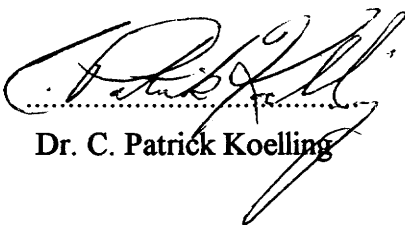
MASTER OF SCIENCE

in
Industrial and Systems Engineering

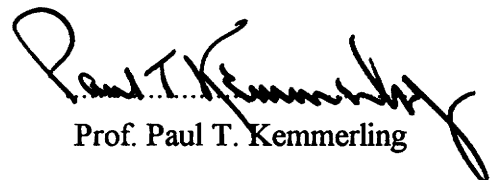
APPROVED:



Dr. Paul E. Torgersen (Chairman)



Dr. C. Patrick Koelling



Prof. Paul T. Kemmerling

May, 1993

C.2

LD
5655
1855
1993
6863
C.2

A CASE STUDY ON THE TRAINING ISSUES RELATED TO LEADERS OF SELF-MANAGING TEAMS IN A REDESIGN PLANT

by

Asela Gunawardena

Committee Chairman: Dr. Paul Torgersen

Industrial and Systems Engineering

(ABSTRACT)

Self-managing teams (SMTs) are receiving increasing attention from organizations striving for continuous improvement and searching for innovative ways to get their employees involved and empowered. More and more organizations are realizing the significant impact these teams have on quality, productivity, the social circles, worker esteem, and profitability.

Consultants and researchers have also paid significant attention to the concept of SMTs, focusing on many aspects of these teams. However, little research has been directed toward the training needs of former supervisors, who, by a plant transitioning to SMTs, have now to take up the role of being coaches of the teams. They invariably are caught in the middle between empowering their teams and satisfying the needs of upper-management. The confusion about their new roles may lead to unsuccessful implementation of the teams. This research is an attempt to answer questions related to the training issues of leaders of self-managing teams.

The purpose of this study is to help managers and consultants further understand the issues, concern, problems and difficulties faced by the coaches of SMTs. The case study sight for this research was the AT&T plant in Richmond. Some of the outputs of this study are: prioritized lists of the issues and concerns of the coaches at AT&T, a simple cause-effect analysis, important issues and solutions proposed by the coaches, and a list of recommendations based on the overall analysis.

ACKNOWLEDGMENTS

Dr. Paul Torgersen, my advisor, mentor, teacher and friend: I am deeply grateful for the wholehearted support, encouragement and guidance you offered with open arms. Your character and profound wisdom have inspired me and greatly influenced my life. The years spent with you, as your graduate assistant and advisee, will always be fondly remembered.

Dr. Pat Koelling, and Prof. Paul Kemmerling: Thank you for your contribution, consistent support, and sound advice on this project. You were very helpful and flexible. I am honored to have had such a distinguished committee.

Dr. Bob Madigan: Your insight and guidance on this project was truly invaluable. I thank you sincerely.

Eileen, my colleague and friend, who introduced the concept of this project to me. Our discussions were stimulating, fruitful, and quite enjoyable. Thanks for getting me started and supporting me throughout this project.

Paul Rossler: Thank you for helping me to see the world in many different ways.

All whom I worked with at AT&T in Richmond: Thank you for your cooperation and enthusiasm. Special thanks to Curt and Debbie Palat, Tina Blake and Rob Taylor. I thoroughly enjoyed working with you. This mutually beneficial project was a very rewarding experience.

Joni: Thanks for helping me produce this manuscript and accommodating all my computer and printing needs.

My Father and Mother: Thank you for all the wonderful opportunities you have given me. Your love, support, and faith have always been there for me to lean on.

Devika, my dearest sister: You have touched every corner of my life with your love, affection and never ending faith . Thank you.

Sammy, my very special friend: Thank you for *always* being with me.

Pablo: Thanks for being an "incredible" apartment-mate, and a very good friend.

CONTENTS

| | |
|---|----|
| CHAPTER 1 - INTRODUCTION | 1 |
| 1.1 Self-Managing Teams..... | 1 |
| 1.2 Research on Self-Managing Teams | 3 |
| CHAPTER 2 - LITERATURE REVIEW | 5 |
| 2.1 Relationships between different Terminology | 5 |
| 2.2 Definition of Self-Managing Teams | 9 |
| 2.3 New Design and Redesign Plants..... | 9 |
| 2.4 Characteristics of Self-Managing Teams | 10 |
| 2.5 The Difference between SMTs and Quality Circles | 13 |
| 2.6 Training for Self-Managing Teams | 14 |
| 2.7 Compensation for Self-Managing Teams | 19 |
| 2.8 Leadership of Self-Managing Teams..... | 21 |
| 2.9 Training for Leaders (Supervisors, Coaches, facilitators, etc.) of SMTs | 24 |
| 2.10 The decisions made by SMTs | 28 |
| 2.11 Information System to Support Self-Managing Teams | 29 |
| 2.12 Implementing Self-Managing Teams..... | 29 |
| 2.12.1 Appropriate situations for SMTs | 29 |
| 2.12.2 Assessing readiness for SMTs | 31 |
| 2.12.3 Stages of implementation | 32 |
| 2.12.4 Phases of Evolution | 35 |
| 2.12.5 Barriers to success | 38 |
| 2.13 Proliferation of Self-Managing Teams..... | 38 |
| 2.14 Results and Outcomes of Self-Managing Teams..... | 39 |
| 2.15 Future Trends..... | 42 |
| CHAPTER 3 - SCOPE OF THIS THESIS | 44 |
| 3.1 Choosing a Research Topic | 44 |
| 3.2 Problem Statement | 45 |
| 3.3 Who will use this research | 45 |
| 3.4 Research Questions | 45 |
| 3.5 Research Purpose..... | 46 |
| 3.6 Research Objective..... | 46 |
| 3.7 Outputs..... | 47 |
| 3.8 Outcomes..... | 47 |
| 3.9 The Relationship of this Thesis to Management Systems Engineering Research | 48 |
| 3.10 Justification for Research..... | 50 |

| | |
|--|-----|
| CHAPTER 4 - METHODOLOGY | 52 |
| 4.1 Definitions of Research..... | 52 |
| 4.2 The Type of Research for this Thesis..... | 52 |
| 4.3 Methods of Research..... | 54 |
| 4.4 The Method of Research for this Thesis..... | 56 |
| 4.5 The Unit of Analysis for this Thesis | 57 |
| 4.6 Sampling | 57 |
| 4.7 Data Collecting | 58 |
| 4.7.1 The Nominal Group Technique (NGT)..... | 58 |
| 4.7.2 Contacting Consultants and Researchers | 60 |
| 4.7.3 Interviews..... | 60 |
| 4.8 Analyzing Case Study Evidence..... | 61 |
| CHAPTER 5 - RESULTS | 62 |
| 5.1 Stage 1: The NGT | 62 |
| 5.1.1 Issues and Concerns of First Shift Coaches | 63 |
| 5.1.2 Issues and Concerns of Second Shift Coaches | 65 |
| 5.1.3 Issues and Concerns of Third Shift Coaches | 67 |
| 5.1.4 Descriptions of some of the issues..... | 69 |
| 5.2 Stage 2: Refining the initial lists..... | 71 |
| 5.2.1 Results of Step 1: Merging, re-wording, adding and deleting items of the initial three lists..... | 72 |
| 5.2.2 Results of Step 2: Categorizing Items..... | 75 |
| 5.2.3 Results of Step 3: Cause - Effect Analysis | 77 |
| 5.2.4 Results of Step 4: Prioritizing the common list | 86 |
| 5.2.5 Results of Step 5: The Confidential Statement..... | 90 |
| 5.3 Some tips and advice to the Coaches | 92 |
| 5.3.1 From the work of R. Moberg and K. Harrington (1988)..... | 94 |
| 5.3.2 From the work of C. C. Manz and H. P. Sims (1980 -1992)..... | 100 |
| 5.3.3 From the work of J. A. Klein (1984 - 1990), and P. A. Posey (1990) | 104 |
| 5.4 Feedback from the coaches..... | 105 |
| CHAPTER 6 - CONCLUSION | 108 |
| 6.1 Key Problem Areas..... | 110 |
| 6.2 Recommendations to Upper-Management | 112 |
| 6.3 Recommendations to Coaches | 113 |
| 6.4 Concluding Thoughts | 114 |
| REFERENCES..... | 116 |

APPENDICES 123

Letter to Consultants and Researchers..... 124

Relevant Company Documentation:

Fact Sheet - AT&T Microelectronics, Richmond Works 125

Cultural Transformation and SMWT Training..... 126

CAMP AT&T 128

Culture Plotting Chart..... 130

SMWT Functional Structure..... 132

Star Diagram of AT&T..... 133

SMWT Guidelines at AT&T 134

Coach Responsibilities 136

Advisor Role in SMWTs..... 137

Vita..... 139

LIST OF FIGURES

| | |
|---|----|
| Figure 2.1 The Authority matrix..... | 6 |
| Figure 2.2 Relationships in Terminology for Self-Managing Teams | 8 |
| Figure 2.3 Stages of Implementation..... | 33 |
| Figure 3.1 The Management System Model | 48 |
| Figure 4.1 Unit of Analysis | 58 |

LIST OF TABLES

| | |
|--|-----|
| Table 2.1 - Differences Between Quality Circles and Self-Managing Teams..... | 13 |
| Table 2.2 - Kinds of team training that members have received recently..... | 16 |
| Table 2.3 - Sequential Steps for Effective Team Training | 17 |
| Table 2.4 - Job descriptions of Traditional Supervisors and New Team Leaders | 22 |
| Table 2.5 - Supervisory Training..... | 25 |
| Table 4.1 - A Typology of Research Purposes..... | 53 |
| Table 4.2 - Research Methods..... | 55 |
| Table 5.1.1 - Voting and Ranking in Order of Importance - First Shift | 64 |
| Table 5.1.2 - Voting and Ranking in Order of Importance - Second Shift | 66 |
| Table 5.1.3 - Voting and Ranking in Order of Importance - Third Shift | 68 |
| Table 5.2.1 - Union related issues | 78 |
| Table 5.2.2 - Upper-Management related issues | 79 |
| Table 5.2.3 - Coach related issues | 80 |
| Table 5.2.4 - Coordinator related issues | 83 |
| Table 5.2.5 - Team related issues | 84 |
| Table 5.2.6 - SMT Process related issues | 85 |
| Table 5.2.7 - The Prioritized Common List of Issues and Concerns..... | 86 |
| Table 5.2.8 - Important Personal Issues and Proposed Solutions | 90 |
| Table 5.3.1 - Shift in mindset of supervisors and managers..... | 94 |
| Table 5.3.2 - Shift in behaviors of supervisors and managers | 96 |
| Table 5.3.3 - Shift in skills of supervisors and managers | 98 |
| Table 5.3.4 - Self-Leadership Strategies..... | 100 |

CHAPTER 1 - INTRODUCTION

In the pursuit of continuous improvement, many organizations are trying bolder forms of employee involvement. These efforts range from new forms of employee suggestion and reward systems to increasingly empowered teams of employees. Of all the possibilities, self-managing teams have received the most attention, perhaps because they are one of the most advanced forms of employee involvement and one of the most productive (Wellins, R. S., et al., 1991).

1.1 Self-Managing Teams

A self-managing team is a group of employees typically responsible for a whole product, process or service; who manage themselves and the work they do. Members of this team handle job assignments, plan and schedule work, set goals, make production-related decisions, solve problems, hire and fire members, and address quality issues. They work with a minimum of direct supervision. Of course there are varying stages of maturity of these teams. While certain teams decide *how* to do work and fulfill expectations, more mature teams decide *what* to do and *how* to do it. Some advanced teams may do strategic planning, budgeting, forecasting, instituting change and other tasks of that nature. Self-Managing Teams are also called different names as: semi-autonomous work groups, autonomous work groups, self-directed work teams, self-designing teams, or work cells. Although there are minor variations (due to maturity, culture, etc.) in the connotations of each label, all the teams are characterized by (Wellins, R. S., et al., 1991):

- Face-to-face interaction in natural work groups
- Responsibility for producing a definable product.
- Responsibility for a set of interdependent tasks.
- Control over managing and executing tasks.

Lately the concept of self-managing teams has proliferated within the business arena almost like a revolution. More and more organizations are realizing the significant impact these teams have on quality, productivity, the social circles, worker esteem, efficiency, effectiveness, profitability and innovation. An underlying theme for organizations to establish such teams is the belief that "None of us are as good as All of us." It is as-

sumed that people are capable of making decisions about their jobs given the right training and information, and they can be intrinsically motivated and are capable of self-control and self-direction. In addition, management believes that employees have ideas about improving the organization and they are given opportunities to make important contributions (Lawler, 1988). Research has shown that high-involvement organizations that empower their employees are among the best performing organizations in the country (Macy et al., 1990).

Key characteristics of self-managing teams necessitate a significant change to many organizational subsystems such as the reward system, the information system, education and training, problem solving and decision making, the measurement system, organizational structure, culture, and planning. Lawler says that self-managing teams are being used in 28% of the organizations that are systematically involving their employees. Approximately 80% of the Fortune 1000 organizations have undertaken one or more involvement initiatives. However, only about 25% have actually significantly changed the way employees are managed and the way work is managed (Lawler et al., 1989).

Management has always been perceived as top-down autocratic processes. A few years ago this top-down emphasis might have been viewed as a little bit outdated by a handful of scholars and practitioners but as a normal logical course to take by most people. Today it seems to reflect either a lack of understanding of current organizational challenges and realities or a resistance to changing our perspectives on organizing and managing to meet contemporary work conditions and pressures (Manz, 1991). Involvement of employees through some process approximating self-managing activity is almost a requirement for successfully competing in the complex highly dynamic environments of modern organizations (Manz, 1991).

In a survey conducted jointly by Development Dimensions International, the Association for Quality and Participation, and Industry Week, 27% of the 800-plus responding executives reported that their organizations currently use self-directed teams. Of those using teams, 47% predicted that more than half their workforce will be organized in self-managing teams within the next five years. Organizations implement self-managing teams for a variety of reasons such as improving quality and productivity, reducing costs, learning to operate with fewer managers, and increasing job satisfaction and morale (Wellins et al., 1991).

Some of the major findings of the survey done by Development Dimensions International, the Association for Quality and Participation, and Industry Week are:

- Executive respondents reported improved quality, productivity, and morale along with reduced labor costs. Team members, consultants, and facilitators noted increased involvement, morale, sense of ownership and commitment.
- The major barriers cited by executives to the success of self-managed teams were insufficient training, incompatible organizational systems (e.g. compensation), resistance from first-line supervisors, lack of planning, lack of management support, and lack of union support. Team members, leaders, and facilitators were most concerned about the lack of management support and lack of supervisory support for the process.
- There was some indication that organizational systems are fast beginning to catch up with changes in organizational structure. When asked about compensation, 59% of the respondents indicated that they still use individual merit increases, while 38% had started a pay-for-skills or pay-for knowledge system.
- Unfortunately, the excitement these teams generated prompted unrealistic expectations. Sixty-eight percent of the executives expected to see substantial results within a year, yet responses from those closer to the teams clearly indicated that progress might take longer.
- Self-Managing Teams are relatively new to most industrial settings. In the research sample, only 23% were three or more years old. The driving force behind the creation of self-managing teams over the next few years most likely will be operating managers and senior executives, the two groups most responsible for the teams that are operating today.

1.2 Research on Self-Managing Teams

Self-Managing Teams have been receiving significant attention from practitioners and researchers in the last several years. Some areas that have been researched are: outcomes of group and organizational performance by using self-managing teams (Trist et al., 1977; Cummings, 1978; Wall et al., 1986; Macy et al., 1990), leadership of self-managing teams (Manz and Sims, 1980, 1984, 1986, 1990; Klein, 1990), the types of decisions teams make (Collins et al., 1989; Easton, 1990), training needed by teams (Cabot, 1989; Muslewhite and Moran, 1990; Wellins et al., 1989), how team members are compensated

(Myers, 1985; Lawler, 1988), implementing teams (Osburn et al., 1990; Wellins et al., 1991) and information systems to support teams (Van Aken, 1991). This research helps practitioners understand whether self-managing teams are worth the effort, how to implement them and how they should operate. However, little research has been directed toward the training needs of former supervisors, who, by a plant transitioning to self-managing teams, have now to take up the role of being coaches of the teams. They invariably are caught in the middle with confusion about their roles and new tasks. This may lead to active or passive resistance by these supervisors, which ultimately may lead to unsuccessful implementation of the teams. Therefore my research will attempt to answer questions related to the training issues of leaders of self-managing teams.

CHAPTER 2 - LITERATURE REVIEW

There are many terms used to describe self-managing work teams, of which some of the most common are: self-regulating groups, self-directing teams, autonomous work groups, semi-autonomous work groups, high performance/high commitment teams, self-designing teams, and work cells. I will universally refer to these as self-managing teams (SMTs). However, to fully understand the phenomenon of self-managing teams, it is necessary to review and clarify any differences in terminology.

2.1 Relationships between different Terminology

Many authors use different terminology to describe self-managing teams. The purpose of this section is to draw relationships between these different terms.

Hackman (1986) using an authority matrix defines a self-managing unit (individual or group) as having responsibility for executing, monitoring, and managing one's own performance. He uses the matrix to distinguish between groups with varying control over what are traditionally "management functions." He identifies four functions that must be performed in work: executing the task; monitoring and managing work processes; designing the performing unit and its context; and setting overall direction. Hackman also identifies four types of performing units and draws relationships between these performing units and the functions, based on how many of the management functions the performing unit is responsible for. Thereby he constructs his Authority matrix as shown in Figure 2.1.

A *manager-led performing unit* represents the traditional work group or individual where the only function the unit performs is actually executing the task(s) -- i.e. producing the product or service. Members have authority only for actually executing the task; managers monitor and manage performance processes, structure the unit and its context, and set overall direction. The most common kind of work groups found in organizations are "coacting" groups, where members of the group report to the same supervisor and work close to one another, but they have individually defined tasks (Hackman, 1984). In a *self-managing performing unit*, members have responsibility not only for executing the task but also for monitoring and managing their own performance. These are common in managerial and professional work -- an example is a team of research assistants who share responsibility for collecting a set of interviews and observations (Hackman, 1986). A *self-designing performing unit* has responsibility for executing the task, managing the work,

| | | | | |
|--|--------------------------------------|-----------------------|---|------------------------|
| Setting Overall Direction | Area of Management Responsibility | | | |
| Designing the Performing Unit and its Context | | | | |
| Monitoring and Managing Work Process | | | | |
| Executing the Task | | | Area of Performing Unit Responsibility | |
| | Manager-led Unit | Self-managing Unit | Self-designing Unit | Self-governing Unit |

Figure 2.1 The Authority matrix (taken from Hackman, 1986)

and designing the unit itself or aspects of the organizational context in which the unit functions. Managers still set the overall direction for the performing unit. An example of a self-designing unit is a top management task force or an individual who is given autonomous responsibility for some task with the right to call on organizational resources to get the job done (Hackman, 1986). According to Hackman, a *self-governing unit* has responsibility for all four of the functions -- they decide what is to be done, structure the unit to accomplish it, monitor and manage how it is done, and actually perform the task(s). Ex-

amples of self-governing units are boards of directors for corporations, worker cooperatives, and sole proprietorships.

A performing unit could include individuals or groups at any organizational level; not only special work groups or teams. Hackman explains that "the horizontal axis of his authority matrix is a continuum reflecting increasing amounts of authority held by unit members relative to managers." There are no clear distinctions between each type as it appears to be.

The terms *autonomous work groups* and *semi-autonomous work groups* make a further distinction in the amount of autonomy work teams have (Van Aken, 1991). Macy (1990) defines a semi-autonomous work group as a "transition step" an organization goes through in the journey toward truly autonomous work groups. In semi-autonomous work groups, the team is mainly responsible for *task-related decisions* such as scheduling production, deciding work methods. As they mature, team members may also begin to take on some *administrative decisions* such as hiring, firing and pay. However, many decisions may still be made by management. Therefore, semi-autonomous work groups are somewhat self-managing and can also be related to Hackman's self-designing performing units.

Autonomous work groups, on the other hand, have no supervision and make *all the decisions* pertaining to the group -- task-related and administrative decisions (hiring, firing, pay, quality standards, production schedules, work methods, overtime and vacation scheduling, addressing training issues and needs, appraisals, procurement, etc.) (Goodman et al. 1989). Autonomous work groups also make strategic decisions, relative to the unit of analysis -- the group. They can make decisions about their products and services, for example, whether to take on a new product (Easton, 1990) , or whether to contract out inputs they need. Therefore, autonomous work groups are not only self-managing, but self-designing and self-governing performing units.

The relationship between the terms discussed above is illustrated in figure 2.2. The continuum from semi-autonomous to autonomous work groups can be superimposed onto Hackman's continuum from self-managing to self-governing performing units, and the relationship depicted. The term "self-managing team" is used in a generic sense, and not in a specific sense as Hackman's "self-managing performing unit." His use of the term implies a group that only executes the task and manages work processes. For my use, self-managing teams may refer to any of the terms -- except the manager-led unit -- discussed so far (semi-autonomous work group, autonomous work group, etc.).

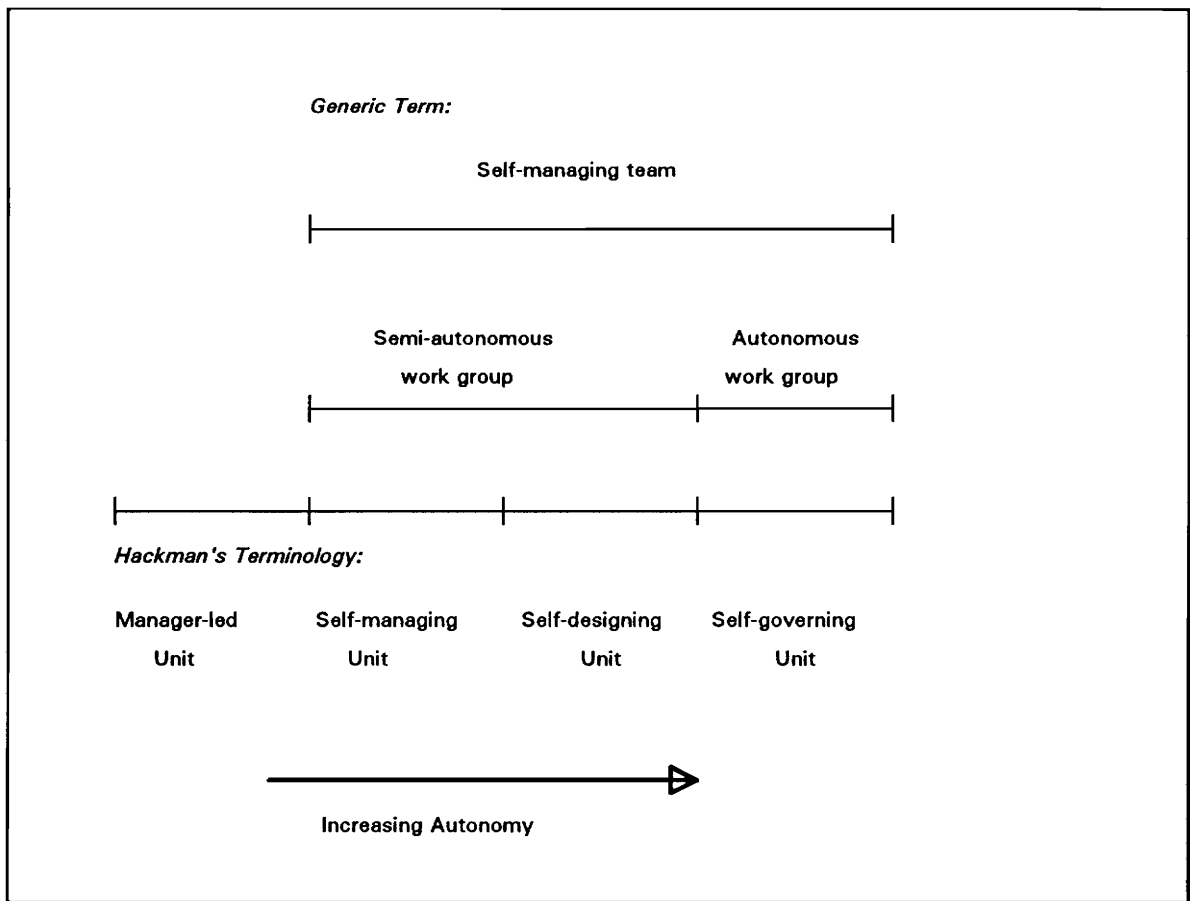


Figure 2.2 Relationships in Terminology for Self-Managing Teams
(adapted from Van Aken, 1991)

Other terms being used to describe self-managing teams are: self-regulating groups (Cummings, 1978), self-directing work teams (Osburn et al., 1990), high performance / high commitment teams (Easton, 1990), and self-directed work groups (Wellins et al, 1991). There is no distinction between these terms and my use of the generic term "self-managing Team." I also see no difference between these terms in the way they've been used in the literature. Although some teams may differ in the amount of autonomy they have, this generally tends to be dependent on the maturity of the teams. As explained before, most teams have to go through a transition step from being semi-autonomous to truly-autonomous teams.

2.2 Definition of Self-Managing Teams

Goodman et al. (1989) provide a descriptive definition of self-managing teams: "Self-Managing Teams are groups of individuals who can self-regulate work on their interdependent tasks. The key elements of such teams are (1) *groups* (versus dyads or organizations) in which there typically is face-to-face interaction, (2) a physically defined *area*, (3) a whole set of *interdependent tasks*, and (4) group members who have *control* over the management and execution of these tasks. *Management* refers to activities such as planning, directing, organizing, staffing, and monitoring. *Control* means that group members have authority and responsibility to initiate the management activities. The *whole set of tasks* refers to all the interdependent activities required to produce a definable product."

Hackman (1984) defines SMTs to be *intact (if small) social systems whose members have the authority to handle internal processes as they see fit in order to generate a specific group product, service, or decisions*. He says these work designs generally include: a relatively whole task; members who each possess a variety of skills relevant to the group task; worker discretion over such decisions as methods of work, task schedules, and assignment of members to different tasks; and compensation and feedback about performance for the group as a whole. These attributes are intended to provide the work group with the *task boundary, autonomy, and feedback* necessary to control variances from goal achievement within the unit rather than external to it (Cummings, 1978).

Easton (1991) refers to self-managing teams as a High Performance/High Commitment workforce, and defines it as being "comprised of well-defined self-directed work teams whose focus is to satisfy customer requirements for quality, cost, schedule, and service with a minimum of organizational supervision. Commitment, ownership, and a thorough understanding of the existing business provides the necessary motivation for the teams to strive toward excellence in all areas of performance."

2.3 New Design and Redesign Plants

A *new design plant*, or a *greenfield plant*, is one that may have been shut down and then started up again after sometime with SMTs or it may be newly built with SMTs being used throughout the plant. A *redesign plant*, or a *brownfield plant*, is one in which a transition is made from traditional work groups to self-managing teams, without shutting down the plant or starting from scratch as in a greenfield plant. In redesign plants, the transition may be made gradually, beginning with a pilot department or division, or the entire organization at once. Dillingham and Delaney (1990) suggest following the second

approach in redesign plants. That way, all the organization sub-systems can be redesigned to support SMTs, rather than having to support teams in one area and traditional groups and individuals in the rest of the plant. The term *high involvement organization*, or *high involvement plant*, refers to a site that uses SMTs system-wide. The site may have been either a new design or a redesign plant.

2.4 Characteristics of Self-Managing Teams

Typical responsibilities for the team may include accountability for quality, costs, output, schedules, inventories, and work design. They often monitor and manage the work assignments; solve problems; make decisions associated with their job; and manage absenteeism, overtime, and vacations. Many teams also evaluate and select team members, design the performing unit and its context, and set their own objectives and strategies (Easton, 1990). Some of the more common characteristics of SMTs are categorized by Kelly (1991) as follows:

Size: Teams can be anywhere from 3 to 30 members - the most common being 5 to 15 members.

Responsibilities: Teams are usually responsible for the planning and production of a whole product or process, or a whole subassembly in the case of a complex product. They take a wide range of technical, social, and administrative responsibilities which may include:

- *Production* - making or delivering the product or service, select production or work methods, and setting team goals.
- *Scheduling* - planning and coordinating production.
- *Quality Control* - inspecting and ensuring high quality.
- *Maintenance* - housekeeping and preventive maintenance.
- *Materials* - obtaining raw materials, tools, parts, and supplies.
- *Safety* - ensuring safety practices and documenting problems.
- *Problem Solving* - diagnosing and investigating problems.
- *Training* - managing cross-training and all training activities.
- *Performance Tracking* - tracking performance, quality, safety, costs, machine utilization, labor utilization, delivery, etc.
- *Budgeting* - developing and monitoring costs.

- *Personnel Issues* - tracking attendance, scheduling, time accounting, vacation schedules, etc.
- *Employee Performance* - managing selection, performance appraisals, discipline, layoffs, and termination.
- *Compensation* - determining pay levels and coordinating raises, gainsharing, recognition, and other rewards.
- *Outside Relationships* - dealing directly with vendors, customers, or other outside parties.
- *Implementing process improvements.*

Leadership: Leadership may vary from having no designated leader to one elected by the team to a formal leader/manager assigned by management.

Skills: Teams require members who are multi-skilled in their technical abilities to carry out tasks. They need a relatively high level of interpersonal skills such as communicating, resolving conflicts, making group decisions, and problem solving. They also need administrative skills in managing meetings and performing whatever administrative responsibilities are assigned.

Time Requirements: Teams may meet daily, weekly, or as needed to coordinate work, solve problems, handle interpersonal issues, or perform administrative tasks. There is usually some blend of regular formal and informal meetings as required.

Success Ingredients: Teams need clearly defined goals and expectations, clearly established roles and responsibilities, well-documented guidelines of behavior and ground rules, open communication in an atmosphere of trust and mutual respect, continuous learning and training in appropriate skills, patience and support by management, rewards tied to results, and a desire to continuously improve and innovate.

Hackman's (1986) behavioral signs of self-management serve to further describe characteristics of self-managing teams. These behavioral signs are arranged below, from the most basic self-managing behavior to those that one would find only in relatively mature SMTs.

- People take personal responsibility for the outcomes of their work and show in their behavior that they feel personally accountable for the results of what they do.
- People monitor their own performance continuously, actively seeking data and feedback to learn how well they are accomplishing their tasks.
- People manage their own performance, taking corrective action at their own initiative to improve their performance.
- When people do not have what they need to perform well, they actively seek from the organization the guidance, help or resources they need for excellent performance -- and they do so assertively and constructively.
- People take initiatives to help people on other areas improve their performance, making sure that their own responsibilities are being met before reaching out to help others.

In addition to behavioral characteristics, there are organizational and job characteristics of SMTs. Cummings (1978) identifies three necessary conditions for self-managing teams:

1. Task differentiation
2. Boundary control
3. Task control

Task differentiation refers to "the extent to which the group's task is itself autonomous, forming a self-completing whole"; *boundary control* is "the extent to which employees can influence transactions with their task environment (e.g., the types and rates of inputs and outputs)"; and *task control* is "the extent to which employees can regulate their behavior to convert raw materials into finished products" (Cummings, 1978). These three characteristics relate directly to a group's capacity for self-management.

2.5 The Difference between SMTs and Quality Circles

To better understand the concept of self-managing teams, it is often helpful to compare these teams to something more familiar such as quality circles. As shown in the table below, SMTs are quite different than other involvement initiatives, such as quality circles or other participation groups.

Table 2.1 - Differences Between Quality Circles and Self-Managing Teams
(adapted from Easton, 1990)

| Quality Circles | Self-Managing Teams |
|--------------------------------|--------------------------------|
| Voluntary | Mandatory |
| 1 Hour / Week | Full Time |
| Task-Oriented | Goal-Oriented |
| Bottom & Top Only | Whole Organization |
| 10% - 20% | 100% |
| Task Force | Business Teams |
| Require Little Cultural Change | Requires Large Cultural Change |
| Quick Implementation | Long Term Implementation |
| Program | Process |

Team members in quality circles meet to solve a problem or make a decision, but it is in addition to, or on the side from their normal day-to-day job. They may not work together every day. They also rarely have the power to implement their problem solutions. More often, they submit problem solutions to management, and management makes the final decision and implements the solution. In some cases quality circles are given a specific problem to address; they do not identify and diagnose the problem. Of course this is not the case with all quality circles. Organizations develop their quality circles to meet their own needs and give them an appropriate amount of power. Some quality circles do indeed identify and diagnose problems, and implement solutions. But this is the exception rather than the rule.

Self-Managing Teams, on the other hand, follow a philosophy of professionalism in their work life. That is, they do not spend just one hour a week thinking about ways to

improve the organization, the team, and their work -- they do it all the time. Generally, they have the authority to decide what type of situation or problem they are to address, and then take appropriate action. This increased authority in problem-solving is the reason why problem-solving skills are so important in SMTs. Typically, the unit of analysis for SMTs in problem-solving and decision-making, is the team itself. They must address the problems and decisions the teams encounter, and not those of a larger unit of analysis such as the organizational system.

Another difference between SMTs and quality circles is their focus of *Goal* vs. *Task*. It is the responsibility of leadership to clarify the common goals and to communicate the SMTs progress toward meeting them (Easton, 1991). Quality circles are given tasks (as opposed to goals), which have a tendency to orient toward quantity at the expense of quality. Naturally quality circles didn't become a success in the United States. The SMTs make task-related decisions and administrative decisions -- the majority of which are made by supervisors in traditional work groups -- in order to achieve their goals.

Glaser (1990) states: "Quality circles are special problem-solving groups, retrofitted to a traditionally-managed work group. Self-Managing Teams replace the traditional structure and become the standard way work is organized and implemented. Quality circles represent an important evolutionary step in employee involvement but should not be confused with any of the forms of autonomous work groups." Implementing SMTs is a process that requires significant cultural change within the organization to be successful. There is a direct correlation between the amount of change needed and the amount of time required (Easton, 1991).

2.6 Training for Self-Managing Teams

Training is of critical importance to any organization. It is of special importance for organizations having SMTs, since team members need special skills to self-manage effectively. Teams generally have four kinds of training: Technical training, Administrative training, Interpersonal training, and Group process training (Van Aken, 1991). *Technical training* is necessary in order for everyone in the team to be cross-trained. Work team productivity and flexibility come from having team members cross-trained in team tasks (Musselwhite and Moran, 1990). This cross-training contrasts with traditional work groups, where each member of the group is responsible for and specializes in a specific task. This arrangement restricts the flexibility of the team to meet varying production de-

mands and filling in for absent workers. A self-managing team is much more flexible because everyone knows the others jobs and has mastered all the necessary skills.

Administrative training is necessary so the team can perform tasks traditionally performed by their supervisor and other support functions in the organization. Administrative training teaches how to deal directly with other parts of the organization -- purchasing, accounting, personnel, etc. (Musselwhite and Moran, 1990). It can include training in: interviewing skills to hire new team members, preparing budgets, performance appraisal, attendance records, work scheduling, etc. Training in administrative skills is tailored to each team's need and maturity.

Interpersonal training is necessary so the team can effectively communicate with one another. Team members need to talk with, explain to, agree with, disagree with, decide, listen to, and convince more people than they probably ever have before ... they need to be skilled communicators, both one-on-one and in group settings (Musselwhite and Moran, 1990). Training given in this area generally includes: conflict resolution, effective listening, giving and receiving feedback, handling diversity, and influencing others.

Group process training involves understanding how groups function, and includes teaching: group dynamics (group roles and group development), problem-solving and decision-making, brainstorming, running effective meetings, and facilitating (Van Aken, 1992).

A survey conducted jointly by Development Dimensions International, the Association for Quality and Participation, and Industry Week, identified twelve types of team training (Table 2.2).

Table 2.2 - Kinds of team training that members have received recently.
(taken from the survey by DDI et al.)

| Type of Training | Percentage of companies that have conducted the type of training |
|----------------------------------|--|
| Group problem solving | 83% |
| Running effective meetings | 65% |
| Communication Skills | 62% |
| Handling Conflict | 61% |
| Roles & Responsibilities in SMTs | 58% |
| Quality tools and concepts | 56% |
| Evaluating team performance | 39% |
| Work flow / Process analysis | 36% |
| Selecting team members | 35% |
| Presenting skills | 35% |
| Influencing others | 29% |
| Budgeting | 14% |

Wellins et al. (1991) outline a framework for training of self-managing teams in their book "Empowered Teams." They clarify sequential steps, giving explicit time frames for each step as shown in Table 2.3.

Table 2.3 - Sequential Steps for Effective Team Training
(taken from Wellins et al., 1991)

| BEFORE TEAM START-UP | | | |
|-----------------------------|--|---|---------------------|
| Time Frame | Managers, Group Leaders, and Key Support Members. | Team Leaders | Team Members |
| 12 months before | Facilitated agreement on mission, vision, and values for the line | (not yet selected) | (not yet selected) |
| 11 months before | Project planning and implementation training | | |
| 10 months before | Team building activity Management team development planning | | |
| 8 months before | Team building activity | | |
| 6 months before | Selection skills training Empowerment training Leadership and influence training | | |
| 5 months before | Group leadership training | Orientation: • Mission, vision, and values • Role clarity • Expectations and objectives • Personal development planning • Basic interaction skills training | |
| 4.5 months before | Developing organizational talent training (to agree on development plans for team leaders) | Technical training on new equipment and processes, interspersed with team-building activities | |
| 3 months before | Encouraging initiatives training (to help team leaders actually implement an improvement) | Action skills training: • Analyzing customer requirements • Identifying root causes • Exploring alternatives • Implementing improvements • Evaluating projects | |
| 2.5 months before | - Joint team-building activity - | | |

Table 2.3 (Cont.)

| | | | |
|-----------------|--|--|--|
| 2 months before | | Selection skills training | |
| 1 month before | | Facilitator training: • Coaching • Reinforcing | |
| 3 weeks before | | Job skills training | Orientation: • Mission, vision, and values • Expectations • Personal development planning • Basics of working in teams |
| 2 weeks before | | Leading meetings | Technical training on new equipment and processes, interspersed with basic interaction skills training |

1 week before - Joint team-building activity -

| AFTER TEAM START-UP | | | |
|---------------------|--|--|---|
| 5 weeks after | | Encouraging initiatives | Meetings skills: Participating and leading |
| 6 weeks after | | (Team leaders deliver action skills training within their own teams) | Action skills training: Analyzing customer requirements |
| 7 weeks after | | | Action skills training: Exploring alternatives |
| 8 weeks after | | Valuing differences | Action skills training: Implementing improvements |
| 9 weeks after | | | |
| 9 - 14 weeks after | | (Team leaders provide coaching and reinforcement) | (Team members actually implement their planned improvement) |

| | | | |
|---|---|--|--|
| 14 weeks after | | | Action skills training: Evaluating the project. |
| 16 weeks after | | Performance planning and feedback training (followed by actually setting process and results objectives) | |
| 4 months after - Renewal activity - | | | |
| 5 months after | Leadership team as- sesses its performance | (Team leaders prepare to deliver additional training) | Gaining team agree- ment |
| 6 months after | | | Assessing team per- formance |
| 1 year after - Renewal activity - | | | |
| 1 yr to 18 months after | | | Team members start to pursue their own needs and interests: making presentations, budget- ing, etc. |
| 18 months after - Refresher training in leadership skills - | | | |
| 18 mts to 2 yrs after | | Team leaders support team members; prepare to deliver additional training. | Refresher training in basic interaction skills, including handling conflict, influencing others, and supporting others. |
| 2 years after - Renewal activity - | | | |

2.7 Compensation for Self-Managing Teams

For years, American industry has rewarded "the lone hero" based on individual performance or seniority. With the proliferation of SMTs, attitudes toward compensation and reward systems are changing (Wellins, 1992). One of the most frequent characteristics of the compensation system for SMTs is a skill-based pay system, where team members

are compensated based on their cumulative skill level (Hoerr, 1986; Myers, 1985; Easton, 1990; Wellins, 1991). Necessary skills are identified, and team members are paid more for every skill they acquire (and become proficient at); thus increasing production flexibility. Wellins (1992) identifies three such (skill) areas:

1. **Job depth** - team members are paid more for learning specific processes in greater depth.
2. **Job breadth** - team members learn all the tasks required of an entire team.
3. **Vertical skills** - team members learn leadership skills used in all jobs (e.g. troubleshooting techniques, training, safety, and leading meetings).

Usually, technical skills are mastered first, then administrative, interpersonal, and process skills are developed in parallel, as and when needed. Generally, team members rely on peer appraisal to determine when another team member has sufficiently mastered a skill to be compensated for it. Often, a team member is required to perform a skill at a given proficiency level for some period of time before he or she receives additional compensation. The system is also designed such that it takes a few years for a team member to master all skills.

One potential problem that arises in this type of system is "topping out" -- acquiring all the specified skills and being unable to receive additional pay raises. This can lead to frustration and lack of motivation to perform. This issue needs to be addressed in the design of the compensation system for teams. Some companies address this issue by encouraging employees who have acquired all the necessary skills to continue advancing in the pay system by teaching the skills to other team members and other teams.

Gainsharing or team bonus programs can also reward team performance (increases in productivity that exceed some measure of baseline performance). Management may divide the bonus equally among team members or the teams may decide how to distribute the bonus among themselves (Wellins, 1992).

In organizations using self-managing teams, there is less opportunity for advancement (vertical career growth) since there are fewer management layers, so team members must be rewarded for horizontal growth (acquiring additional skills and knowledge). The issue of compensation (and training) is also relevant for leaders of self-managing teams and management in general. In the trend of flatter leaner organizations, there is going to be less room for advancement in general. Compensation systems must be overhauled to

reward horizontal growth and development (Lawler, 1990; Dillingham and Delaney, 1990).

2.8 Leadership of Self-Managing Teams

Traditionally, supervisors have been those individuals whose task was controlling and directing the behavior of others. As those "others" become more autonomous, the supervisors' role must also shift (Moberg and Harrington, 1988).

Supervisors (leaders of self-managing teams) have been one of the biggest sources of resistance to the concept of employee involvement and self-managing teams, primarily because they are not involved in the design and implementation of the teams (Klein, 1984, 1988; Walton and Schlesinger, 1979; Wellins, 1992; Geber, 1992). An inherent paradox in self-managing teams is, if they are supposed to be self-managing, what do you need a supervisor for? And if you have a supervisor, what is his or her role, and how does it change? SMTs are designed to take on many of the functions traditionally ascribed to management, but this does not mean that external supervision is unnecessary. As organizations continue to change to a more participative or SMT culture, and as teams mature with time, the old adage that "every team needs a coach" continues to hold true (Klein and Posey, 1990).

In reality, very few organizations using self-managing teams have no supervisors at all (typically, the word supervisor is changed to something like coordinator, facilitator, or coach). Only the most mature teams (truly autonomous work groups) operate without external leaders. In most organizations using self-managing teams, the supervisor role is changed to an external team leader role. The role of the leader is significantly different from the traditional supervisor; rather than the primary responsibility of monitoring and managing work processes, the external leader's primary responsibility is to get the team to be self-managing as quickly as possible, through coaching and facilitating. This includes facilitating team meetings if necessary, being a role model, not jumping in to solve problems as they did in the past, and reinforcing self-managing behavior by the team (Manz and Sims, 1980, 1984, 1986; and Manz and Angle, 1986). The primary focus of the traditional supervisor's role is task oriented, whereas the team leader's is more relationship oriented (Klein and Posey, 1990). Implicit in the focus of the job description of traditional supervisors is the expectation that they supply the controlling influence over production activities and direct work effort internally to the work units. However, in a SMT culture, job descriptions are more general, and represent goal expectations rather than behavioral

imperatives. They are focused on the development of the team and team effort; a critical part being training of teams in group problem solving (Klein and Posey). Table 2.4 compares job descriptions of traditional supervisors and team leaders.

Table 2.4 - Job descriptions of Traditional Supervisors and New Team Leaders.
(adapted from Klein and Posey, 1990)

| Traditional Supervisor | Team Leader |
|---|--|
| Plan, organize, direct, and control line | Insure resources are available for team to produce on-time, quality product. |
| Meet cost, quality, and delivery objectives | Develop team maturity -- coach and counsel |
| Manage daily variance | Represent team in plant-wide activities |
| Coordinate activities and resources | Train and lead team in problem solving |
| Plan / implement line improvements | Motivate team toward goal achievement |
| Administrative tasks <ul style="list-style-type: none"> • Safety • Housekeeping • Communications | Assume responsibility for indirect tasks |

The team leaders in a high-commitment or participative plant operate in a more ambiguous environment than do those in a traditional plant. Supervisors involved in this transition may sense a loss of power and job security. This can be emotionally painful. They have to undergo special training programs to learn their new roles and acquire coaching skills. These training programs have to be custom designed for different companies according to their culture, infrastructure, reward system, education and development system, and other subsystems. Team autonomy is also a major factor in designing training programs for supervisors.

Cummings (1978) says that the supervisory role of SMTs involves two major functions: developing group members and helping the group maintain its boundaries. Developing group members in SMTs requires a consultative style of management, and helping the

group maintain its boundaries is necessary if members are to sustain sufficient autonomy to control variances and relate to their task environment (Cummings, 1978).

Manz and Sims (1986) divide the SMT leader's role into three categories: (1) model the specific self-management strategies, (2) encourage and provide guidance for groups to use them, and (3) provide reinforcement when they are used. They (1989) call leaders of SMTs "superleaders," whose main task is leading others to lead themselves (self-leadership). Self-leadership is the influence we exert over ourselves to help us achieve the self-motivation and self-direction we need to behave in desirable ways (Manz and Sims, 1990). Becoming a self-leader is the first step to being a superleader and leading others to self-leadership. The overall steps involved in superleadership are (Manz and Sims, 1990):

1. Become an effective self-leader.
2. Model self-leadership.
3. Encourage self-set goals.
4. Create positive thought patterns.
5. Reward self-leadership.
6. Promote self-leadership through teamwork.
7. Facilitate a self-leadership culture.

Some of the more mature SMTs have internal leadership roles. These roles can be taken up by one person or a few of the team members, depending on the leadership characteristics of the members. Barry (1991) has developed a distributed model that is uniquely suited for SMTs. He says, "at its heart is the notion that leadership is a collection of roles and behaviors that can be split apart, shared, rotated, and used sequentially and concomitantly." That is at any one time multiple leaders can exist in a team with each leader assuming a complementary leadership role. These leadership roles are (Barry, 1991):

- *Envisioning leadership* - revolves around creating new and compelling visions. Leading this process requires facilitating idea generation and innovation, defining and championing overall goals, finding conceptual links between systems, and fostering frame-breaking thinking.
- *Organizing leadership* - brings order to the many disparate elements that exist within the group's task. Characteristics associated with the role include a focus on details, deadlines, time, efficiency, and structure.

- *Spanning leadership* - involves facilitating the activities needed to bridge and link the SMT's efforts with outside groups and individuals. Associated behaviors include networking, presentation, management, developing and maintaining a strong team image with outsiders, intelligence gathering, locating and securing critical resources, bargaining, finding and forecasting areas of outside resistance, being sensitive to power distributions, and being politically astute.
- *Social leadership* - focuses on developing and maintaining the team from a socio-psychological position. Related behaviors include surfacing different members' needs and concerns, assuring that everyone gets his or her views heard, interpreting and paraphrasing other views, being sensitive to the team's energy levels and emotional state, injecting humor and fun into the team's work, and being able to mediate conflicts.

Barry says that these leadership roles must be differentially emphasized during the various phases of an SMT's life. To establish an effective distributed leadership system, members must learn about the personal qualities of one another; a working knowledge of the different orientations, beliefs, and skills of the others is necessary so that those with leadership skills in a certain area can gain the team's consent to use those skills (Barry, 1991).

Some SMTs refer to their internal leaders as coordinators. Characteristics of these coordinators are: (1) they are generally elected, (2) different people rotate through the role, (3) the internal team leader is also a team member, (4) they are paid a little more, and (5) they also coach and facilitate the group in self-leadership (Sundstrom et al., 1990; O'Fallon, 1990; Dillingham and Delaney, 1990). Often managers express concern that teams will always elect the same person -- the strong and dominant group members -- as internal team leaders. Ideally managers should encourage members to rotate the leadership role among all (or most) members so that each individual gets an opportunity to exercise one's inherent leadership qualities, and learn from those who are good leaders.

2.9 Training for Leaders (Supervisors, Coaches, facilitators, etc.) of SMTs

Those in leadership positions also need training in topics such as coaching for success, reinforcing effective performance, encouraging and supporting initiatives, and team leadership (Wellins, 1992). Many of the responsibilities previously reserved for supervisors and managers are transferred to the SMT. Supervisors (former) are being asked to serve

as coaches while at the same time they worry about the security of their own jobs. They need to be trained in coaching skills if they are to be effective coaches. Training coaches of SMTs is as important -- or even more -- as training the teams. Their resistance is real and natural, say Wellins, because "they have to give up power, and they have to learn fundamentally new roles." There are three important components in the strategy for training leaders of SMTs (Wellins, 1992):

- Skills - coaching and facilitation
- Awareness and Commitment
- Role Clarity - the new roles should be clearly defined. Also, managers should find innovative goals, tasks, etc. for coaches of SMTs.

Wellins believes that ineffective training -- not supervisor resistance -- is the number one barrier to successful team implementation. Therefore it is of utmost importance that top management emphasize appropriate training of leaders as well as the team members. This issue should be of top priority in a company's endeavor to implement SMTs which requires radical changes in both its culture and its way of operation.

In a study of thirty organizations that use SMTs, Harrison (1992) identified several areas of training for supervisors (Table 2.5).

Table 2.5 - Supervisory Training
(taken from Harrison, 1992)

| Training area | Number of companies | Percentage |
|--|---------------------|------------|
| Team building / Team dynamics | 19 | 31% |
| Problem-solving skills | 12 | 19% |
| Total quality / Continuous improvement | 12 | 19% |
| Interaction / Interpersonal skills | 8 | 13% |
| Leadership skills | 7 | 11% |
| Adjustment to new role | 4 | 6% |

Other training subjects include communication skills, company culture, facilitation skills, values, giving/receiving feedback, and coaching skills (Harrison, 1992). Although

delivery and content of the training program are important factors in the success of the training program, Harrison says he found top management participation and support to be the most critical factor. Other factors contributing to successful training identified by him are:

- Participant control over course selection/design.
- Management and teams training first to set example.
- Experiencing problems during training (making training relevant).
- Joint participation of labor and management in the development of training.
- Tying performance evaluation and promotion to developing desired (new) behavior.
- Ensure job security for supervisors.
- Reinforce training.

Moberg and Harrington (1988) say that in the context of High-Involvement management, the sharing of power, knowledge, information and rewards such that all of us can know more, care more, and do more can and will only happen if our supervisors and managers become "developers" of full member capability. They explain the shift in role from a traditional "manager as hero" concept to a new "developer" concept on three levels:

1. Shift in mindset/orientation - a fundamental and lasting shift that would-be developers must make in their basic beliefs, values and assumptions about themselves, others, and the organization.
2. Shift in behavior - the way developers act, function or react.
3. Shift in skill requirements - new and key skills required by the developer

According to an ancient Chinese saying, "The best of all leaders is the one who helps people so that, eventually, they don't need him" (Lao Tzu, taken from Manz and Sims, 1989). This statement draws a strong relationship to the "developer" concept of Moberg and Harrington (1988) and the "superleadership" concept of Manz and Sims (1989). It also captures the idealistic essence of what external leadership of SMTs should be. Manz and Sims say that *a superleader is one who leads others to lead themselves*. They say that subordinates can perform leadership functions for themselves and the leader's job is to teach and encourage subordinates to lead themselves effectively. To be effective, say Manz and Sims, a leader must successfully influence the way people influence themselves. Leaders of self-managing teams must strive to be "superleaders." But

they cannot learn to be "superleaders" over-night. Top-Management should provide the appropriate training, support and encouragement; and most of all, be patient.

The organization's infrastructure, culture, education and development system, measurement system, and reward system should support self-leadership of all employees and superleadership of the leaders. Top management should encourage employees to become effective self-leaders, they should model self-leadership, reward self-leadership and promote it through teamwork, and facilitate a self-leadership culture.

According to Manz and Sims, self-leadership is a philosophy and a systematic set of behavioral and cognitive strategies for leading ourselves to higher performance and effectiveness. They say that self-leadership is the foundation to superleadership. The main objectives of superleadership are to stimulate and facilitate self-leadership capability and practice and, further, to make the self-leadership process the central target of external influence (Manz and Sims, 1989). Some of the *themes of superleadership* discussed by them are:

- An important measure of a leader's own success is the success of others.
- What makes a leader successful at one level can be counterproductive at a higher level.
- Leaders should empower subordinates to do "traditional" leadership tasks and start looking at the big picture a little more.
- The strength of a leader is measured by the ability to facilitate the self-leadership of others - not the ability to bend the will of others to the leader's.
- If a person wants to lead somebody, he must first lead himself.
- The best of all leaders is the one who helps people so that eventually, they don't need him.
- Give a man a fish, and he will be fed for a day; teach a man to fish, and he will be fed for a lifetime.

There is a growing realization in the United States that traditional management and leadership methods are inadequate. One of the primary weaknesses of these methods is the neglect of the self-leadership capability of employees (Manz and Sims, 1989). Organizations should strive to tap this natural resource of their employees through systemic changes in culture, rewards, measurement, infrastructure, and training.

2.10 The decisions made by SMTs

Self-Managing Teams have the authority and power to make many more and different types of decisions than traditional work groups. The work design (job characteristics approach to task design) and the structure of the teams drives the type of decisions teams must make. SMTs typically have the authority to make *task-related decisions* (work methods, production scheduling, quality standards, and output), and *administrative decisions* (vacation scheduling, shift-work scheduling, overtime scheduling, hiring, firing, and scheduling of breaks) (Cummings, 1978; Goodman et al., 1988; Hoerr, 1989; Hoerr et al., 1986; and Myers, 1985). The work system generally places more responsibility on employees than do typical manufacturing or service environments. SMTs are assigned a wide range of tasks and responsibilities, including preparation of an annual budget, keeping records of hours worked, recording quality control statistics, making within group job assignments and participating in assessment of performance of fellow group members. Teams engage in various problem-solving activities that include handling and scheduling equipment, and process problems as well as group-member problem behaviors such as absenteeism (Manz and Sims, 1987).

Another perspective that describes the autonomy of self-managing teams relates back to Hackman's authority matrix. As teams become more autonomous they gradually take over the decisions made by management. A *semi-autonomous team* would have responsibility for task-related decisions, which are monitoring and managing work processes. In this situation, the team is what Hackman calls a self-managing performing unit. Semi-autonomous work groups may also have responsibility for designing the performing unit and its context, which includes: decisions about group rewards and pay, work environment, hiring and firing, and structure of the team.

An *autonomous work group* (called self-governing by Hackman) may have responsibility in decision-making for some or all of the support functions that the organization would typically supply through centralized support service departments. Examples of these are quality control, maintenance, purchasing, production control, and shipping and receiving. All this, is of course in addition to their own task related and administrative decisions the group will have to make. An autonomous team is also responsible for strategic decisions for the team, which might include selection of suppliers and customers, new products or services, etc. Some teams, for example, determine whether or not they want to procure their inputs from internal upstream systems or from external organizations.

This enables the team to be almost entirely self-supporting and to operate as a small business.

2.11 Information System to Support Self-Managing Teams

Because of their autonomy and the type of decisions that SMTs are required to make, the information they need will be much different than the typical information provided to traditional work groups. Information technology must support the teams (Lawler, 1990). Information typically provided to SMTs include feedback on the team's performance (quality, productivity, schedule, etc.), goals for the team, goals for the overall organization, performance of the organization, customer requirements, and other information about the organization and about its competitors (Lawler et al. 1989; Easton, 1990; Van Aken, 1991). The mechanism for sharing information can be reports and memos, charts and graphs, formal and informal meetings, as well as computer networks, closed circuit TV, electronic mail, and verbal information (Van Aken, 1991).

The information needs of teams change as they become more mature and autonomous. Information needs will become more broad, as teams begin to take on more strategic decisions -- as related to the team (Musselwhite and Moran, 1990). One critical element of the information system is the ability for team members to influence and change the design of the information system. Teams and their activities are dynamic, and the information system must also be dynamic (adaptive and flexible) to support them. Information also flows from the team to other groups or individuals in the organization. Teams may give presentations to management and other teams on their performance and their goals and accomplishments (Van Aken, 1991).

2.12 Implementing Self-Managing Teams

This section explores guidelines for determining what situations are appropriate for SMTs, describes how managers should assess readiness of organizations for SMTs, the necessary conditions needed for successful implementation of SMTs, the process to introduce SMTs to an organization, and the phases of evolution of SMTs.

2.12.1 Appropriate situations for SMTs

Although the reasons for transitioning to self-managed teams seem intuitively sound and the benefits seem promising, not every situation may be conducive to teams (Dillingham and Delaney, 1990; Easton, 1990; Musselwhite and Moran, 1990). One con-

sultant in this area has expressed the concern that many organizations are going to jump on the bandwagon of the team approach and create high performance teams (what appears to have happened with TQM), when teams may not be appropriate for the given application. There are two types of questions when considering work teams: would more employee involvement improve productivity?; and would employees with multiple skills improve productivity? (Musselwhite and Moran, 1990). In some situations, the answers may not be so. When designing or redesigning an organization using SMTs, the following issues should be carefully considered before implementation (Kelly, 1991; Dillingham and Delaney, 1990):

- **External Factors:** Markets, customer requirements, vendors, competitors, owners, organization history, and resources.
- **Strategy:** Organization mission, management philosophy, key goals and objectives, operating strategies, and long-term and short-term plans. Dillingham and Delaney (1990) call this the *Purposing System*, and advise to look at goals, strategies, vision, and values, as well as pull in environmental data to look at "what is our purpose for being?" and "where do we want to go?"
- **Technical Systems:** The way products and services are produced and the methods and systems needed to do it, including tasks, technologies, and facilities. Look at work flow, technology, and methods; the work system is based on the purposing system and ask: "are we doing any work that doesn't get us to our purposing system?."
- **Structural Systems:** How people are organized, including both formal and informal systems. Look at division of labor, reporting relationships, and physical layout; ask "what kind of structure will best get the necessary work done?."
- **Decision Making & Information Systems:** How decisions are made and how information flows throughout the organization. Look at decision processes, information needs, and information sources; given the type of work, the structure, the decisions to be made, what are the information needs of teams?

- **People Systems:** How people are recruited, selected, trained, evaluated, disciplined, promoted, and developed. Look at linkages, norms, quantity, skills, and careers; need to think of people as "pulling themselves up."
- **Reward Systems:** How people and their contributions are recognized and rewarded, both formally and informally. Look at desired behavior, types of rewards, and distribution methods. The system needs to be flexible and should reward people for making change.
- **Renewal Systems:** How the organization evaluates and improves itself. Dillingham and Delaney say that organizations should look at *Essential Processes*: leadership, learning, renewal, communication, and problem-solving; and ask "how we as an organization can continue to move forward?"
- **Results:** How the organization performs in terms of customer satisfaction, technical performance, people performance, and business results.

Organizations contemplating on implementing SMTs should follow the advice of Kelly (1991), Dillingham and Delaney (1990); and seriously consider the above issues. Dillingham and Delaney recommend that their process of implementing teams (integrated above with Kelly's "issues") be used to create teams throughout the organization as opposed to a pilot group, because the process includes looking into the organization's vision, mission, etc.; in an effort to get the entire organization working toward common goals.

2.12.2 Assessing readiness for SMTs

Now that SMTs have become popular, they are often implemented with little planning and knowledge. Although the principles are the most basic elements of human behavior and this process seems extremely simple, it is very complex (Easton, 1990). Before an organization invests the inordinate amount of time and resources necessary for the transition to SMTs, it should assess its readiness on a variety of fronts (Musselwhite and Moran, 1990):

- **Top management commitment** - strong and clear commitment.

- **Operations conducive to work teams** - many industrial operations (especially ones in which employees perform repetitive tasks without much opportunity to use their brain power) could benefit from work teams.
- **Union participation** - unions should be brought into the planning stage at the very outset and kept involved as active partners throughout the process. Unions should broaden their focus beyond protecting job positions to include a concern for an organization's overall health.
- **Enough time and resources** - successful implementation calls for massive planning, retraining, and often a major physical redesign of plants and offices; the payoff may be months or years away.
- **Commitment to training** - work teams succeed or fail on the training they receive.
- **Willingness to take risks** - personal and organization risks. Managers must be willing to risk a complex and costly organizational innovation, and workers must trade their traditional jobs for more demanding roles as team members.
- **Willingness to share information** - to manage themselves, teams need management information. The more teams make decisions to support their organization's goals, the more they will want and need information about the organization's overall operation, including financial information.
- **Management-employee trust** - there must be mutual trust and respect.
- **Access to help** - organizations should know where to find the best assistance - qualified people with first-hand experience in setting up SMTs. Organizations using both external and internal consultants are the most likely to succeed (Macy et al., 1990).

Thorough examination of these fronts will ensure the organization is ready to take on such a large encompassing change. Even if the change is in a pilot group, these elements should exist to some extent since there are most likely plans to diffuse the change throughout the rest of the organization if it proves successful (Van Aken, 1991).

2.12.3 Stages of implementation

The specifics in the stages of implementing SMTs should obviously be tailored for each company going through this transition. However, there are some distinct phases to the process, described by Easton (1990), and depicted in Figure 2.3.

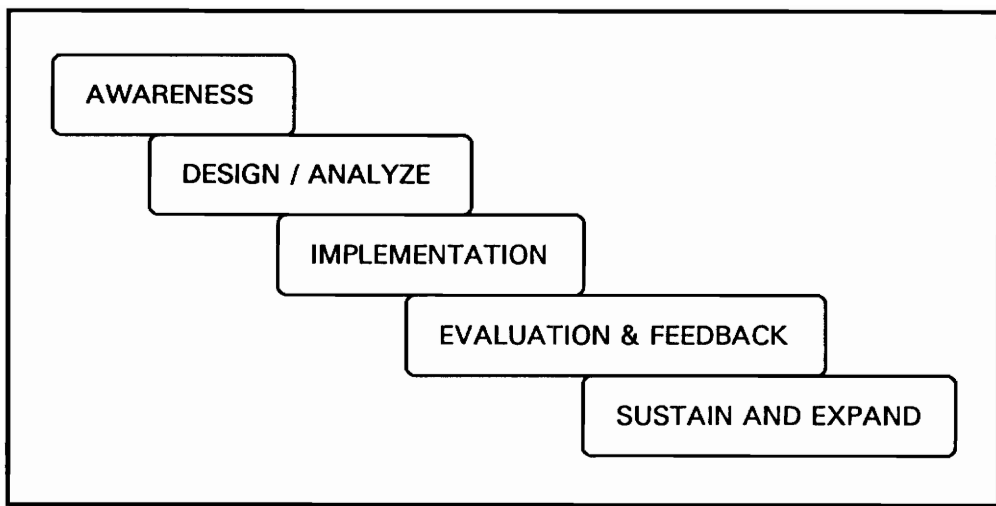


Figure 2.3 Stages of Implementation
(taken from Easton, 1990)

AWARENESS: The first phase requires an understanding of SMTs and its application to the business. Managers should raise the level of understanding throughout the organization and assess appropriateness of SMTs

DESIGN / ANALYZE: Create a change plan based on needs assessment. There must be a clear understanding of the current state, and a clear vision of the desired state.

IMPLEMENTATION: Create group identity and begin the training and empowerment process. Teams are developed around clearly defined boundaries that respond to internal and external customer needs.

EVALUATION AND FEEDBACK: Develop feedback loop for constant improvement on lessons learned, and assess readiness for the next step in training and work requirements.

SUSTAIN AND EXPAND: Maintain a constant improvement cycle. This is the most difficult part. Until the entire organization is working this way -- instead of having isolated

pockets of excellence, or pilots -- there will always be significant pressure to revert to the old ways (Easton, 1990).

These phases of implementation give a general idea of what needs to be done when implementing SMTs in an organization. However, practitioners and managers need more specific guidance in the implementation process. Kelly (1991) describes in a step-by-step form, an implementation methodology that most organizations use:

Step 1: Form a Steering Committee - include key people from top management, unions, or other critical areas of the organization. Their role is to establish the overall guidelines, to manage the process, and to approve recommendations.

Step 2: Establish a Design Team - with key representatives from all areas of the organization to be designed. Their role is to analyze the existing state of the organization and to develop recommended changes. Their activities would include steps 3-6.

Step 3: Envision the Future - study and learn about what other organizations are doing. Develop a project game plan. Create a vision in broad terms of what the future state of the organization might be like.

Step 4: Analyze the Present State - consider the issues identified in the previous sections titled "Appropriate situations for SMTs" and "Assessing readiness for SMTs."

Step 5: Develop Design recommendations - prepare suggestions and design recommendations for all of the systems in question.

Step 6: Develop Transition Plans - prepare implementation plans to guide the organization from the present to the future state. Report recommendations to the Steering Committee for approval.

Step 7: Implement Recommendations - implement the transition plans, provide whatever training and education is required, and monitor the results. Implementa-

tion may begin with a pilot area with a subsequent roll-out to the rest of the organization.

Step 8: Evaluate Results - study the benefits and problems as a result of implementation. Get feedback from the organization. Develop a plan of continuous improvement and renewal.

When implementing SMTs, Kelly (1991) advises organizations to: (1) Allow enough time - 6 months to 2 years before implementation, depending on the size and complexity of the organization; (2) Create your own solution; (3) Get some good help; (4) Be flexible and innovative; (5) Communicate; (6) Anticipate an adjustment period - expect and be prepared to deal with resistance to change; (7) Be patient - it will take several years to see the process through to fruition.

2.12.4 Phases of Evolution

Although the process in the previous section outlines the steps in designing self-managing teams, it does not describe the phases of evolution of the team itself. Musselwhite and Moran (1990), Osburn (1990), and Kelly (1991) describe the following phases through which teams will progress:

Stage 1 - Start-up

- No structural change has occurred yet.
- Management and union have made a commitment.
- Communicating plan to all employees, win their commitment.
- Address goals, expectations and tasks to be done.
- Members anxious about acceptance by others.

The challenge: Get everyone committed to the plan and prepare selected employees to participate.

Training focus: Help executives, managers and supervisors to get employees commitment. Basic interpersonal training begins. Administrative training - focus on basic tasks as completing attendance records, ordering materials, etc. Technical training - provide members with an overview of all team tasks.

Stage 2 - State of Confusion

- Work teams have started.
- Team members have taken on some tasks from supervisors.
- A lot of meetings, everything is chaotic, anxiety and confusion reign.
- Work team members struggle to communicate with each other and other groups in the organization.
- Management struggles to provide the necessary support and training.
- Team must resolve the issue of how leadership and power will be distributed.
- Roles and "spheres of influence" need to be clarified.

The challenge: Help people work through their confusion and personal anxiety. Management needs to demonstrate support often and clearly.

Training focus: Learn how to do things together. Cross training begins at this stage.

Stage 3 - Leader-Centered Work Teams

- Work team members are tired of confusion and chaos and may turn to strong members to take control and resolve issues.
- Functional relationships among members are established.
- Members may try to stick to team tasks they already know rather than taking on new assignments; productivity may increase.
- Management becomes more comfortable as roles and responsibilities are clarified.
- Temptation to cut off further growth as a last-ditch effort to recreate the safety and familiarity of the old structure.

The challenge: Encourage further team growth without giving up gains in productivity.

Training focus: Help members become effective leaders by training in group leadership and problem solving skills. Learn how to evaluate team members' work performance.

Stage 4 - Tightly Formed Work Teams

- Teams focus on performance and results. At this stage, most indicators are up.
- Management is positive and more team members are assuming leadership duties.
- Teams are competitive with each other and individual members feel strong commitment to each other.
- Inter-team competitiveness can lead to efforts to sabotage other work teams.

- Members work together in constructive ways to achieve common goals

The challenge: Broaden work teams' goals to include the organization as a whole without destroying their team spirit.

Training Focus: Learn how to work across team lines and through technical training in other teams' tasks. Members can take on responsibility for peer review and grievances.

Stage 5 - Self-Directed Work Teams

- Teams are now functioning at their peak and productivity is up.
- Work teams are flexible and members feel confident and know how to acquire the resources they need.
- Teams have developed a sense of identity with the larger organization; they take a broader view of work, and subsequently need information on the organization as a whole.
- Teams may have to deal with periods of significant change - losing or adding members, redefining a team's primary mission, or a total break-up of the team. Furthermore, Kelly says that these changes will force members to address their fundamental expectations, goals, norms, and ground rules.

The challenge: Avoid complacency by working toward new goals -- organization should grow by entering new markets, or developing new products or services.

Training focus: Learn about marketplace, present or potential - understanding customer expectations, dealing with dissatisfied customers, supporting innovation, reading financial reports, evaluating teams' productivity in terms of ROI, etc.

The speed at which teams move through these stages may vary, depending on their size, complexity of tasks, character and personality of members, circumstances surrounding the teams, and issues the teams have to face. In reality, this evolutionary process can be much more complex, especially in those organizations that have been using SMTs for several years. Performance of SMTs usually reach a plateau after about three years into the process, having steadily increased in the early stages. The general agreement among managers and consultants seemed to be that the plateau was a result of the organization ceasing to be flexible and adapt to fit the changing needs of the teams (Van Aken, 1991). Appropriate training, consistent support, and time to deal with issues are the keys to the SMTs smooth development through these stages.

2.12.5 Barriers to success

In the survey conducted jointly by Development Dimensions International, the Association for Quality and Participation, and Industry Week; they identified the following issues to be the most prevalent barriers to successful implementation of SMTs. The team members indicated that the major barriers limiting the effectiveness of SMTs were:

- Personnel issues and conflicts.
- Difficulty with the transition to new roles.
- Unwillingness of managers to give up their power.
- Confusion and anxiety about job security and career growth.

The barriers cited by the respondents to the Executive Survey are:

- Insufficient training.
- Incompatible organizational systems.
- Resistance from first-line supervisors.
- Lack of planning.
- Lack of management support.
- Lack of union support.

One interesting finding is that 68% of the Executive Survey respondents expect significant results from SMTs within the first year of implementation. Given the time reportedly needed to achieve business results, this expectation may itself be a barrier to the ongoing support for team efforts (Katz et al., 1991).

2.13 Proliferation of Self-Managing Teams

The use of work teams has spread to many very large and well-known organizations, such as Xerox, General Electric, AT&T, Proctor & Gamble, TRW, and Cummins Engine. Some of the benefits that each of these companies have received as a result of SMTs are: improved productivity, better quality products and services, higher employee morale, reduced or more flattened staffing, and more responsive organization structures (Musselwhite and Moran, 1990).

There has been a fair amount of success in implementing SMTs in widely varied organizations: coal mining industry (Trist et al., 1977), pet food manufacturing plant (Walton, 1977), paper plant (APQC, 1989a), cable TV service (APQC, 1989b), mutual life insurance firm (Myers, 1985; Hoerr et al., 1986); a credit financing company (Hoerr,

1989) are just a few. There are more applications in manufacturing than service, although the number of cases in the service industry is increasing, and there is evidence that self-managing teams in service organizations will work just as well as in manufacturing organizations (Macy et al., 1990; Goodman et al., 1988; Lawler et al., 1989).

There are also many more applications in the private sector than the public sector, although, again, there is no reason to believe SMTs could not work in the public sector. City governments are also beginning to look into SMTs (Van Aken, 1991).

There have been successful applications of SMTs in both non-union and union plants. Provided that union representatives are involved from the very beginning stages of design and implementation, and provided that management can clearly communicate the benefits for all parties, there is no reason why SMTs can't be successful in any union plant.

Self-Managing Teams have been successfully implemented in large and small facilities. Although it is easier to implement teams in a smaller plant - which is the case in any organizational change - it is not overly difficult in large plants. A comprehensive, well thought-out plan, and total top-management commitment are essential. In large organizations, it is important to involve the entire organization in the change effort. It is also important to have a champion who will spear-head the process. This "champion" has to be totally devoted to the cause, be patient, have the power to make the necessary changes, rapidly adapt to changing situations, obtain support and commitment from top-management and all participants, and be able to pull everyone together to fulfill a shared vision.

2.14 Results and Outcomes of Self-Managing Teams

As a result of implementing SMTs, Easton (1990) says that most organizations often experience expanded jobs with less required manpower, reduced layers of supervision and increased span of control, less bureaucracy, increased communication, improved quality of products or services, faster turn-around, reduced turnover and absenteeism, and, of course, increased productivity.

The promise of improved performance is the number one reason organizations are moving toward self-managing teams, so it is understandable that there is a lot of interest and research on performance results. Performance is defined as effectiveness, efficiency, productivity, quality, quality of work life, innovation, and profitability/budgetability (Sink, 1989). Some of the reasons for organizations to consider SMTs are (Wellins et al., 1990):

- **Quality:** Prevailing theory maintains that success in quality comes not from giant steps but from the everyday steps that constitute continuous improvement. SMTs facilitate this very process.
- **Flexibility:** It is hoped that teams will communicate more effectively, tackle more opportunities, find better solutions, accommodate shifting requirements, implement actions and adapt more quickly.
- **Flatter Organizations:** Fewer middle managers improve cost efficiencies, improve communication, and shift decision-making powers downward.
- **Changing workforce:** The collective talent that teams provide facilitates the changing demographics of the American population and helps organizations face the need to fill highly technical, varied, and ever-changing work roles.

Some studies show significant impact on performance, such as extrinsic and intrinsic job satisfaction (Wall et al., 1986), turnover, absenteeism, and productivity (Trist et al., 1977), while other studies show less than promising results. Macy et al., performed a meta-analysis over the last five years to examine the results of work innovation in North America from 1961 to 1990. They conducted the study because of the inadequacy of existing studies on work innovations which lack longitudinal data and are fraught with methodological weaknesses (Macy et al., 1990). They began with thousands of studies of work innovations and successively narrowed the number down to 131, through the use of three criteria: (1) the study had to be in North America, (2) it had to have empirical data (quantitative results) to permit comparison, and (3) it had to be longitudinal. The most frequently cited resources from the 131 studies were the Journal of Applied Psychology and the Journal of Applied Behavioral Sciences.

Macy et al. divided the work innovations into three different categories of what they called "action levers" - *structural* (included things such as MBO, autonomous work groups, semi-autonomous work groups, physical layout/human factors, etc.); *human resources* (included management development/training, job enrichment, problem solving teams), and *technology* (CAD/CAM, robotics, automation, and computer networks). They used statistical meta-analysis to aggregate individual level data from across multiple experiments by standardizing the data. Twenty nine moderating/intervening variables and 55 dependent variables/outcomes were identified. Categories of *moderating variables* were:

- Contextual - geographic location, type of technology.
- Organizational - organization size, group size.

- General attitudes - perceived trust, perceived security.
- Improvement program variables - length of change program, diffusion.

Categories of *dependent variables* included:

- Quality
- Quantity
- Costs
- Attitudes about the work environment
- Group characteristics, and Individual characteristics.

The results of the study showed that both semi-autonomous and autonomous work groups have positive results, but the biggest improvements by far come with using autonomous work groups. These teams typically resulted in 40% to 70% improvement along any number of performance dimensions. This type of improvement was far greater than improvement shown from any of the other work innovations. The organizations using autonomous work groups have been using them for a number of years, so these types of gains do not come quickly. Many of the unsuccessful and disappointing results of SMTs in other studies may quite well be due to lack of patience. Those teams may have turned around had they been given a chance to mature and develop further.

There are several other implications from this study for the use of self-managing teams. First, the transition from traditional manager-led work groups with parallel problem-solving teams to semi-autonomous work groups may take five to seven years. The transition from semi-autonomous to autonomous work groups may take another several years. Organizations considering this undertaking must realize from the very beginning that the use of self-managing teams is not a quick fix. Semi-autonomous and autonomous work groups are an integrative strategy that uses many of the "action levers" reported in the studies conducted by Macy et al. This type of change is more holistic and systemic; it requires examining and changing a significant number of organizational sub-systems. Work innovations (action levers) that change only one or a few sub-systems (such as financial rewards, training, automation, etc.) are less likely to succeed and will produce significantly smaller performance gains than autonomous work groups (Macy et al., 1990).

SMTs lead to performance improvements in speed, quality, and costs because lower level employees are able to act more quickly and in a more informed, more motivated manner.

2.15 Future Trends

The concept of self-managing teams has created a new revolution in organizational systems. Many organizations that have implemented SMTs have reaped a good harvest in profitability and productivity; seen improvements in quality of products and services, quality of work life, creativity, flexibility and innovation; and enjoyed relating many success stories. Those organizations which undertake the challenge of implementing SMTs will have a competitive advantage in the future. Those who don't may be left behind. Goodman et al. (1988) project a slow but sure growth of their use. They predict *slow* growth because of the complexity and sophistication of self-managing teams as an involvement initiative. They predict growth for several reasons. First, self-managing teams are congruent with the cultural trend of participation and democracy in the workplace. Secondly, organizations experimenting with less sophisticated involvement initiatives will gradually move on to more complex ones such as SMTs. A third reason they list is new technology. For example, the spread of computer integrated manufacturing is changing the nature of work toward more integration, more flexibility and faster reaction time - all consistent with the use of SMTs.

With the increase of SMTs, Goodman et al. (1988) predict several changes in their form. Currently, most applications of self-managing teams are in manufacturing organizations. However, their use in non-manufacturing environments is expected to increase (Lawler et al., 1989) as well as in managerial levels (Goodman et al., 1988; Lawler, 1990). Additionally, satellite organizations which represent linked autonomous units appear to be conducive to the use of self-managing teams (Van Aken, 1991). Telecommuting may have an influence on the form of SMTs by allowing team members to work outside traditional boundaries or face-to-face groups. Goodman et al. (1988) predict that as Telecommuting increases, self-managing teams linked by computer networks may develop.

In his *Second Generation Approach* to management of organizational systems, Lawler (1992) emphasizes importance of increasing the degree to which information, power, knowledge and rewards are placed in the hands of individuals who are actually creating the products and services. The intention, he says, is to develop a high level of business involvement among all employees. It is particularly important for business involvement of future SMTs to have responsibility for producing a whole product or completely serving an identifiable customer base.

Manz, Sims, and many other researchers envision self-managing teams eventually becoming Self-Leading Teams in the future. These advanced teams will not only manage themselves, but will do strategic planning, budgeting, competitive bench marking, etc. and will lead themselves into the future. Goodman et al. (1988) conclude by observing that "self-managing teams are in place in the United States and other industrialized countries [and] there are strong forces - from cultural values about participation, the evolution of new forms of involvement, and changes in new technology - that will support the growth and redesign of self-managing teams." Self-managing teams are said to be one of the most important work innovations to come along in the past two hundred years (Harper and Harper, 1988). Whether or not this is true, there is no doubt that they are beginning to represent a preferred way of managing work. Their use is becoming more and more widespread. We are seeing increased interest in these teams as a result of social, economic, and technological changes (Wellins et al, 1991). In the most recent set of data collected, Lawler, of the USC's Center for Effective Organizations, found that the use of SMTs has increased, although it is still limited compared to other involvement initiatives. Treated carefully, and given the time needed for experimenting, learning, and adapting to change, SMTs hold considerable promise for the future.

CHAPTER 3 - SCOPE OF THIS THESIS

The phenomenon of self-managing teams is indeed quite captivating, and I have been fascinated by the successes of organizations using them. However, to generate a feasible topic for a master's thesis, I had to narrow the phenomenon to a specific issue or concept.

3.1 Choosing a Research Topic

Mr. Curt Palat and Mrs. Debbie Palat, both managers at the AT&T Microelectronics plant in Richmond, Virginia, conducted a seminar for the Management Systems Engineering students, here at Virginia Tech in March 1992. They explained the process of establishing self-managing teams in their organization, emphasizing the change in culture from "traditional" (non-participative, rigid hierarchical structure, etc.), to a participative culture, fostering SMTs. They encouraged students interested in learning more about their change effort, to visit them in Richmond. I accepted this offer and spent several hours in Richmond with Mr. Curt Palat, listening, observing, and learning about AT&T's endeavors in implementing SMTs in their organization. He explained the pros and cons of teams, the obstacles they had to face, and the roadblocks and limitations they had to overcome. He stressed the difficulty they were having in developing coaching skills for supervisors (now coaches) of the teams, and the struggle they faced in the transition from supervisor roles to coaching roles. This immediately attracted my attention.

I developed a keen interest to study *the new role of supervisors* of self-managing teams in redesign plants. Their successful transition from being "traditional" supervisors to being coaches or facilitators of SMTs is undoubtedly critical to organizations and therefore is a useful and interesting research subject. The *new role of supervisors* is the *role of being successful coaches*. For this thesis I chose to analyze system-wide problems and issues associated with the new role of supervisors, and assist them to overcome some of the difficulties by sharing information obtained from the literature and consultants.

I *first* conducted the Nominal Group Technique (NGT) -- described in section 4.7.1 on page 58 -- with the AT&T supervisors and obtained a prioritized list of the problems, issues, concerns, barriers to success, etc. they face in their new roles as coaches of SMTs. *Secondly*, I conducted interviews with some of the supervisors to obtain richer information on the problems and difficulties they face, and how they compare their new

roles to the old ones. *Thirdly*, I obtained information from consultants, researchers and the literature to address these issues. *Fourthly*, I presented this information (structured specifically to address the above issues) to the supervisors. *Lastly*, I got feedback from the coaches on the effectiveness of method, and usefulness of the presented information.

3.2 Problem Statement

The aim of this research is to understand the systemic problems and training issues faced by "new" coaches of self-managing teams in a redesign plant, and to help them overcome those problems.

3.3 Who will use this research

This research is designed for managers of organizations implementing SMTs to understand the system-wide problems encountered by former supervisors of the SMTs, and to help them design appropriate programs to fulfill training needs of these supervisors. Consultants and researchers, teaching and studying self-managing teams may also use this research to design and construct their training programs incorporating comments, ideas, and suggestions generated by the NGT, and the interviews.

3.4 Research Questions

The following research questions are aimed at diagnosing organizational problems, building a comprehensive training program to address these problems and related issues, and then testing its effectiveness. The information I gathered from consultants, books, articles, the conference on Self-Managing Work Teams, and the coaches and managers at AT&T, contributed to answering these questions.

1. What are the problems, issues, concerns, barriers, etc. that supervisors face in their new role as coaches of SMTs?
2. How do you compare the new role to the old one? What are the similarities and differences?
3. How do the supervisors feel about job security? What are their anxieties?
4. What *skills* do coaches of SMTs need to be successful?

5. What new *behaviors* should coaches of SMTs practice?
6. What should be the shifts in *mindset* (trust, tolerance, patience, risks, etc.), of supervisors from traditional to SMT culture?

3.5 Research Purpose

The purpose of my research is to *improve an intervention* - specifically to improve training programs for coaches of self-managing teams; and *attempt to solve a problem* - satisfy some of the training needs of these coaches. This results in two sub-purposes:

1. To help managers of redesign plants understand the problems and difficulties faced by the supervisors and to select appropriate training programs for their organizations.
2. To help consultants design effective training programs for coaches of SMTs.

My research questions are based on this dual-purpose. The research purpose answers the question: "why am I doing this research?" It is stated as a general overriding reason.

3.6 Research Objective

The objective of this research is to make recommendations for improvements of training programs for coaches of self-managing teams. I focused my research on analyzing systemic problems faced by the coaches, and procuring their ideas on appropriate training to solve some of the problems and difficulties. To accomplish my objective, I took the following steps:

1. Performed the NGT with all the supervisors, and constructed a prioritized list of the problems, issues, difficulties, etc. they face in their new roles.
2. Conducted interviews to obtain in-depth information on the issues identified by the NGT.
3. Obtained information, ideas, suggestions, etc.; from consultants, researchers, and the literature; on skills, behaviors, and shift in mindset, required to be successful coaches of SMTs.

4. Structured this information to address issues identified, and the training needs of the supervisors.
5. Presented this information to the coaches (supervisors) of SMTs at AT&T - i.e. administer a form of training.
6. Conducted interviews with supervisors to get feedback on the effectiveness of method, usefulness of the presented information; and also to gain their thoughts on strengths and weaknesses of the different types of training they have been through.
7. Made recommendations for improvements based on the responses.

3.7 Outputs

My research has resulted in the following products:

1. A prioritized list of the problems, difficulties, issues, concerns, and barriers to success, faced by supervisors of SMTs in a redesign plant.
2. A comprehensive list of skills, behaviors, and shift in mindset required to be successful coaches of SMTs.
3. An analysis of the system-wide issues faced by the coaches of SMTs.
4. A list of recommendations for upper-management as well as the coaches.

3.8 Outcomes

Following is a list of outcomes (long term) which I desire to occur as a result of this research:

1. Stimulate further research on self-managing teams.
2. Disseminate knowledge gained from this research by publishing papers from this thesis.
3. Improve the implementation of SMTs in organizations.
4. Improve understanding of the phenomenon of SMTs among managers of such teams and executives contemplating on implementing such teams.
5. Improve training programs for coaches of SMTs.

3.9 The Relationship of this Thesis to Management Systems Engineering Research

Management Systems Engineering focuses on the research, design, development, and implementation of improved management systems. A management system consists of three components: who manages (the decision maker), what is managed (the organizational system), and what is used to manage (tools and techniques). A management system also has three interfaces: the decision/action interface, the measurement/data interface, and the information portrayal/information perception interface (Kurstedt, 1988). I have modified Kurstedt's Management System Model for this research, as depicted in Figure 3.1.

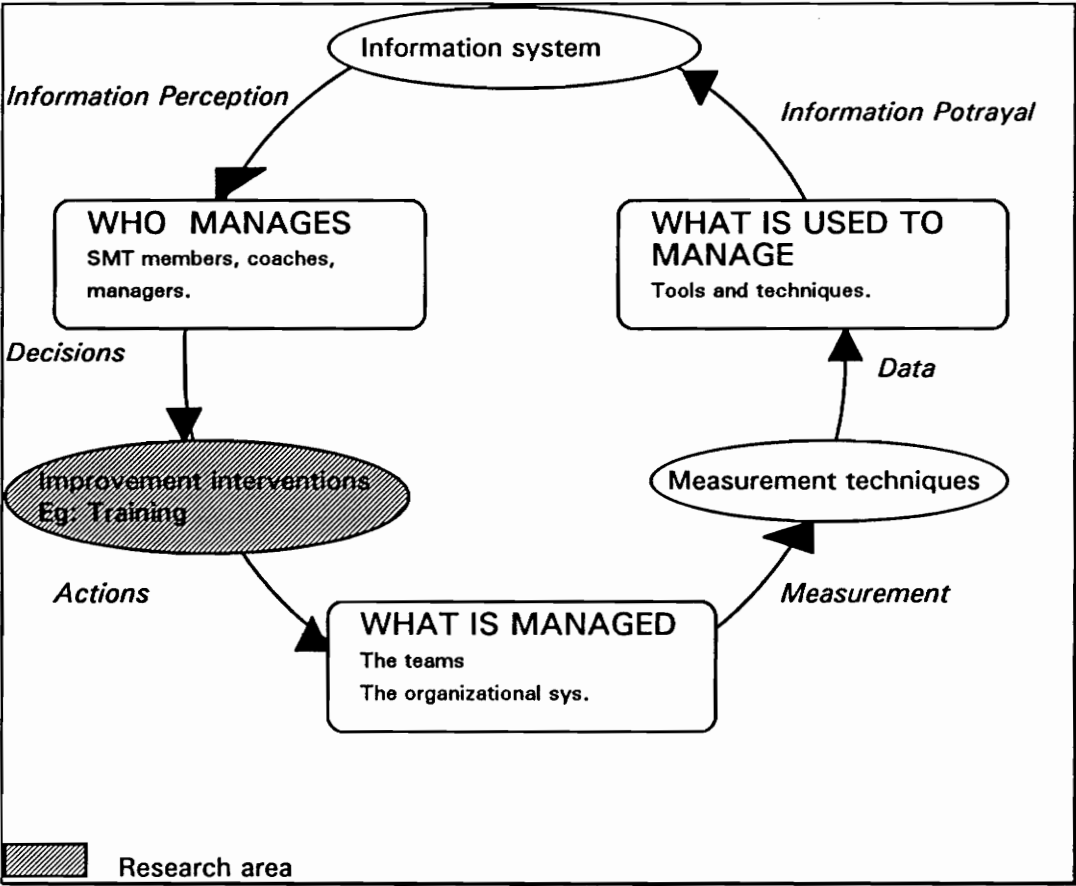


Figure 3.1 The Management System Model
(adapted from Kurstedt, 1988)

The "who manages" component of the Management System Model consists of the managers, coaches and team members at AT&T. All three groups contribute to making decisions or helping to make decisions related to the training issues of coaches. The improvement intervention interface is the area of research for this thesis. The "what is managed" component focuses on the teams. However, since this is only a part of the entire organization, and some of the issues and problems the coaches face are systemic, occasional reference will be made to the whole organizational system. The "what is used to manage" component consists of the tools and techniques coaches use to do their work.

Typically a management systems engineer identifies problems from a generalist's perspective, and solves them with a specialist's tools. I analyzed the problems and other issues faced by the coaches at AT&T with an open mind and a broad perspective. I gathered information and gleaned advice from consultants and researchers (specialists) of SMTs.

Sink (1989) stresses the importance of organizations simultaneously pushing on crucial "fronts" in their journey of continuous improvement. Those fronts, which can also be considered to be distinct management systems, are:

- Planning system
- Measurement system
- Culture
- Education and Development (training)
- Reward System
- Infrastructure
- Information system
- Technology
- Other organizational specific "fronts"

Sink perceives continuous improvement as an ongoing war in a world of intense competition. Therefore he uses the analogy of organizations pushing on these fronts simultaneously and maintaining a balance in moving forward to the future. Training is a management system and a strategic "front" that must be designed, developed and implemented like any other system. *Analyzing training related issues and problems of coaches of self-managing teams and shaping an improvement intervention is the contribution of this thesis to Management Systems Engineering.*

3.10 Justification for Research

Employee involvement is an area which is receiving a lot of attention in management literature and practice. Involvement is an integral element of many of the most prevalent improvement interventions. Many organizations which are currently using problem-solving teams, quality circles, or other kinds of participation groups in their improvement efforts will naturally evolve toward using more sophisticated and complex involvement initiatives such as SMTs (Goodman, et al., 1988). The potential for SMTs to have a positive impact on organizational performance is very great (Van Aken, 1991). Goodman et al. (1988) predict slow but sure growth of SMTs: *slow* because of the complexity and sophistication of SMTs as an involvement initiative. They predict *growth* because SMTs are congruent with the cultural trend of participation and democracy in the workplace. Self-managing teams have been called the productivity breakthrough of the '90s. Company after company is recognizing the value of empowering their employees (Wellins, et al., 1991).

There are many areas in self-managing teams that have been researched and well documented. There is quite a bit of research at a very theoretical level. This theoretical research tends to look at the conditions for self-management, what is self-management, job and organizational characteristics of self-managing teams, etc. While useful for conceptual and theoretical discussions, this research does little for the practitioner struggling to implement teams. For the practitioner, however, there are several books written about self-managing teams: (1) Explaining how SMTs work, how they're different from other teams, and what they do on a day-to-day basis; (2) Offering the key factors for successful implementation of SMTs; and (3) Providing practical advice for working through the stages of building strong teams. But little, if any, research has been done in an operation level, to test the effectiveness of training programs for the leaders or coaches of self-managing teams in redesign plants.

Leadership is a critical factor in the success of self-managing teams. Former supervisors of traditional work groups need to be trained in their new roles as coaches and facilitators of SMTs. Top-Management emphasizes the training that teams need in order to get them up-and-running; and almost neglect the needs of the (former) supervisors. In their rush to empower Self-Managed Teams as a path to greater efficiency and productivity, some organizations have disempowered managers and supervisors, and cut their numbers sharply (Geber, 1992). Naturally, resistance from supervisors is listed as one of the major barriers to success of SMTs. This is a pressing problem, since organizations don't

want to ignore their supervisors, yet at the same time, they don't want to hinder teams' development.

Managers and supervisors are essential to the process. Not only must they smooth the way for the new order, many of them will become coaches and advisors to the newly Self-Managed Teams (Geber, 1992). Their cooperation is vital. Supervisors need to be trained in coaching skills, facilitating skills, and on how to "help others lead themselves - to become *superleaders*" (Manz and Sims, 1989). Organizations must continue to articulate the role of the team leaders and come up with innovative things for them to do as teams gradually become self-managing and gain more autonomy. The transition from manager to coach is probably the most difficult of all the individual changes that must take place to bring work teams into being (Geber, 1992).

Top Management needs to understand the systemic problems and issues faced by the supervisors, and plan comprehensive training programs, not only for the team members, but also for the team leaders or coaches in order to ensure a smooth and amicable transition to self-managing teams. Consultants need to constantly improve the training programs they conduct for coaches of SMTs. My research will help consultants to build and test the effectiveness of such training programs, will help managers to select appropriate programs to satisfy their training needs, and will attempt to make the road easier for organizations making the transition to self-managing teams.

CHAPTER 4 - METHODOLOGY

In this chapter I will first define the concept of research and then explain my methodology by drawing relationships to the different methods of research described in the literature.

4.1 Definitions of Research

Research is "the manner in which we attempt to solve problems in a systematic effort to push back the frontiers of human ignorance or to confirm the validity of the solutions to problems others have presumably solved" (Leedy, 1985). Research can involve a controlled experiment conducted in a laboratory, or a careful observation and interpretation of events over which the researcher does not have much control. Furthermore, Leedy states that research is "a way of looking at accumulated fact so that those data become meaningful in the total process of discovering new insights into unsolved problems and revealing new meanings."

Patton (1990) describes five types of research in the context of their purpose, focus, desired results, desired level of generalization, and key assumptions. These are listed in table 4.1. In the next section I will classify the type of research I will conduct, and relate it to the different characteristics of research types explained by Patton.

4.2 The Type of Research for this Thesis

Referring to Table 4.1, I will do *Formative Evaluation and Action research*. Therefore the **purpose** of my research is twofold: (1) to improve an intervention; specifically to improve training programs for coaches of self-managing teams, and (2) to solve problems in an organization; specifically some of those faced by the coaches. The **focus** of my research would be understanding the problems, attempting to solve some of them through training, and identifying the strengths and weaknesses of training programs. The **desired results** will be immediate action through consultation, interviews and presentation of information needed to make necessary changes; and recommendations for improvements of training programs. The **desired level of generalization** was limited to a specific setting studied; namely the AT&T plant in Richmond, Virginia. The **key assumptions** were that people (supervisors and managers) can and will use the information I provided and upper-management will improve the training they conduct for coaches of SMTs.

Table 4.1 - A Typology of Research Purposes
(taken from Patton, 1990)

| Types of Research | Purpose | Focus of Research | Desired Results | Desired Level of Generalization | Key Assumptions |
|------------------------------------|---|---|--|--|--|
| <i>Basic Research</i> | Knowledge as an end in itself; discover truth. | Questions deemed important by one's discipline or personal intellectual interest. | contribution to theory. | Across time and space (ideal). | The world is patterned; those patterns are knowable and explainable. |
| <i>Applied Research</i> | Understand the nature and sources of human and societal problems. | Questions deemed important by society. | Contributions to theories that can be used to formulate problem-solving programs and interventions. | Within as general a time and space as possible, but clearly limited application context. | Human and societal problems can be understood and solved with knowledge. |
| <i>Summative Evaluation</i> | Determine effectiveness of human interventions and actions (programs, policies, personnel, products). | Goals of the intervention. | Judgments and generalizations about effective types of interventions and the conditions under which those efforts are effective. | All interventions with similar goals. | What works one place under specified conditions should work elsewhere. |
| <i>Formative Evaluation</i> | Improving an intervention: a program, policy, organization, or product. | Strengths and weaknesses of the specific program, policy, product, or personal being studied. | Recommendations for improvements. | Limited to specific setting studied. | People can and will use information to improve what they're doing. |
| <i>Action Research</i> | Solve problems in a program, organization, or community. | Organization and community problems. | Immediate action; solving problems as quickly as possible. | Here and now. | People in a setting can solve problems by studying themselves. |

Organizations are getting more and more interested in employee involvement and participation in general. Evidence exists that SMTs will become a more common initiative in organizations. The overall purpose of this research is not knowledge as an end in itself (as with basic research) but to investigate and understand problems associated with an important phenomenon (role of coaches in a SMT environment) in order that it directly contributes to the practical application of building effective training programs for coaches of SMTs.

The nature of this research is both **exploratory** and **descriptive**. I have **explored** and analyzed the problems faced by supervisors, the varying skills required to be successful coaches of SMTs, the different behaviors they need to practice, and the shifts in mind-set (trust, tolerance, patience, risk, etc.) they need to go through the transformation from traditional to SMT culture. I have gathered information from consultants, researchers, books and articles, structured this information so that it relates to the issues identified by the coaches at AT&T, and obtained feedback on the usefulness of this information. I have **described** the problems and other issues associated with the new role of the supervisor, and the process I used for this research; explained the reactions, ideas and suggestions of the supervisors, and made recommendations for improvements.

4.3 Methods of Research

Table 4.2 is a listing of research methods along with each methods' characteristics and research goals taken from Leedy (1985). I have drawn relationships of my research to the methods described by Leedy and explained how it fits into a particular category (or a combination of categories or methods).

Table 4.2 - Research Methods
(taken from Leedy, 1985)

| Method | Characteristics of the Method and the Research Goals |
|---|--|
| <i>Action Research</i> | The approach in action research is to do something to see if it works. Will playing video games improve eye-hand coordination in typing? Method: Get a bank of computers, a group of typists; set up a training session. See if typing skills improve. |
| <i>Case and Field Study Research</i> | A type of descriptive research in which data is directly gathered from individuals (individual cases) or social or community groups in their natural environment for the purpose of studying interactions, attitudes, or characteristics of individuals or groups. |
| <i>Descriptive (or normative) Survey</i> | The descriptive survey method, also called the normative survey method, is employed to process the data that comes to the researcher through observation. This method looks with intense accuracy at the phenomena of the moment and then describes precisely what the researcher sees. |
| <i>Developmental</i> | This type of research is an observational-descriptive genre of investigation that usually stretches over a period of time and is frequently called "the longitudinal study." Trend studies and projections of future trends are sometimes considered as developmental research projects. |
| <i>Historical</i> | The historical method attempts to solve certain problems arising out of a historical context through a gathering and examination of relevant data. |
| <i>Experimental Method</i> | The experimental method attempts to control the entire research situation, except for certain input variables which then become suspect as the cause of whatever change has taken place within the investigative design. |
| <i>True Experimental Method</i> | The true experiment evinces a greater degree of control and refinement and a greater insurance of both internal and external validity. |
| <i>Quasi-Experimental Method</i> | Quasi-Experimental designs are used in situations where random selection and assignment are not possible. The researcher must be aware of the specific variables the design fails to control and take these into account in the interpretation of data. |

| | |
|----------------------|---|
| <i>Ex Post Facto</i> | This method observes existing conditions and searches back through the data for plausible causal factors. It is the "detective method" in which the situation of the crime is discovered and then the search for the cause or motivation for the crime is sought. |
|----------------------|---|

4.4 The Method of Research for this Thesis

I used the *case study method* of research for this thesis. Case studies provide the depth, detail, and individual meaning necessary of relatively new phenomenon (Patton, 1990). The case study "approach to qualitative analysis is a specific way of collecting, organizing, and analyzing data ... the purpose is to gather comprehensive, systematic, and in-depth information about each case of interest" (Patton, 1990). A case study allows a researcher to investigate a contemporary phenomenon within it's real life context (Yin, 1989). Self-managing teams are indeed a relatively new phenomenon. A characteristic of case studies is the combination of data collection methods. The data collection method used in this research will be the NGT, interviews, direct observation, and documents.

From table 4.2, Leedy defines a case study as a type of descriptive research in which data is directly gathered from individuals or social or community groups in their natural environment for the purpose of studying interactions, attitudes, or characteristics of individuals or groups. I directly gathered information from the coaches of SMTs at the AT&T plant, through interviews and meetings. The first set of meetings focused on the problems, issues and concerns the coaches face in their new roles. The last set of meetings focused on attitudes, thoughts, ideas, suggestions and reactions to the information presented and comparison of different training programs. The purpose of the first set of meetings was to identify and analyze the systemic problems associated with supervisors of SMTs. The purpose of the last set was to obtain feedback on the process and the usefulness of the presented information.

Patton (1990) says, "the case study approach to qualitative analysis (qualitative inquiry) is a specific way of collecting, organizing, and analyzing data ... the purpose is to gather comprehensive, systematic, and in-depth information about each case of interest." A characteristic of case studies is the combination of data collection methods, such as interviews, questionnaires, observation, archives, and even experiments. The data collection

methods used in this research were the NGT, interviews, meetings, documents, and direct observation.

4.5 The Unit of Analysis for this Thesis

The AT&T plant in Richmond was the case-study site for this research. The plant, called a Strategic Business Unit (SBU) within the AT&T circles, is divided into five departments: (1) Marketing, (2) Research and Development, (3) Human Resources, (4) Manufacturing, and (5) Overall Business. The department of Manufacturing is further divided into ten Internal Business Units (IBUs). Since AT&T began their change in culture to be more participative and foster employee involvement, six of these IBUs have been transformed to incorporate and be supported by self-managing teams. These IBUs are: (1)PDDF - Photo Dielectric & Dry Film, (2)ASL - Automatic Shuttle Loading, (3)PRINT - Hardboard Printing, (4)GIRH - Gold Imadizole Reflow HASL (Hot Air Solder Level), (5) Final Mechanical, and (6)Chemical. These six IBUs were my unit of analysis, as shown in Figure 4.1.

4.6 Sampling

The Manufacturing division works three shifts with the SMTs having a different coach (formerly supervisor) for each shift. Therefore I interacted with 18 coaches - my sample size. In relation to Patton's (1990) methods of sampling, I used purposeful sampling as opposed to probability sampling. By this I mean that I purposefully selected people, settings, events, and social processes as opposed to randomly selecting the same.

I worked with the people "championing" the SMT effort. In the case of AT&T they were Tina Blake and Rob Taylor from the Human Resource Department. In any change effort, there is typically an individual, or group of individuals, responsible for "championing" the intervention (Van Aken, 1991). They serve as a link between the self-managing teams and the rest of the organization and are responsible for the training of teams and implementation of new teams.

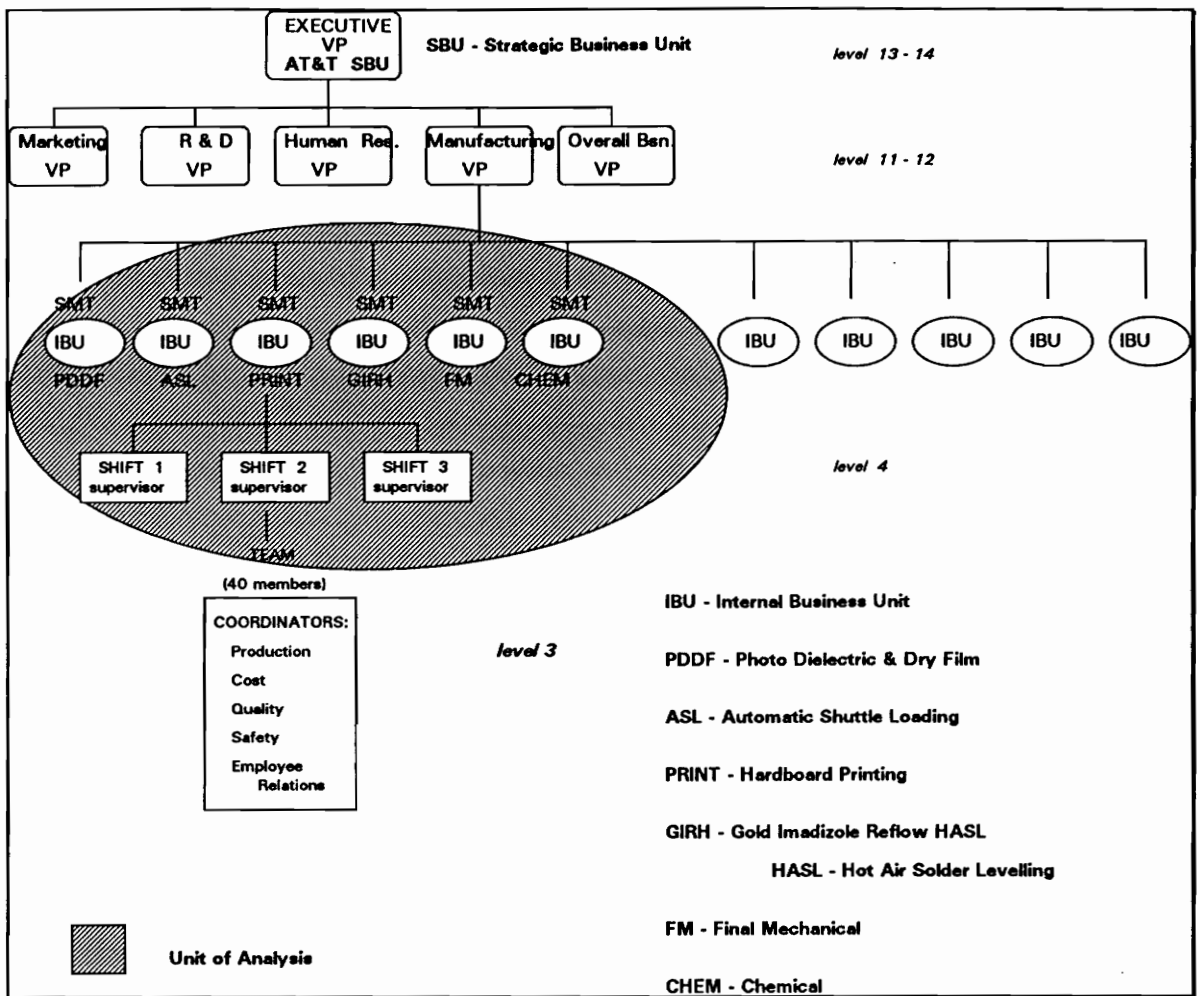


Figure 4.1 Unit of Analysis

4.7 Data Collecting

My initial method of data collection was the NGT with the coaches. I also conducted interviews with them and asked them specific questions during group meetings to obtain deeper information on the issues brought up during the NGT. I also requested information from consultants and researchers, and attended a conference on Self-Managing Work Teams in Chicago on September 24 and 25, 1992.

4.7.1 The Nominal Group Technique (NGT)

The NGT was developed by Andre L. Delbecq and Andrew H. Van de Ven in 1968. Following is the technique as described by Delbecq, Van de Ven and Gustafson, in

their book, *Group Techniques for Program Planning*. The NGT was derived from socio-psychological studies of decision conferences, management-science studies of aggregating group judgments, and social-work studies of problems surrounding citizen participation in program planning. Since then, NGT has gained extensive recognition and has been widely applied in health, social service, education, industry, and government organizations.

NGT is a structured group meeting that proceeds along the following format. Imagine a meeting room in which seven to ten individuals are sitting around a table in full view of each other; however, at the beginning of the meeting they do not speak to each other. Instead, each individual is writing ideas or thoughts on a pad of paper in front of him or her. These thoughts are generated from a *task statement* given to the participants at the beginning of the session. At the end of five to ten minutes, a structured sharing of thoughts takes place. Each individual, in round-robin fashion, presents one thought from his or her private list. A recorder writes that thought on a flip chart in full view of the other members. There is still no discussion at this point of the meeting -- only the recording of privately narrated thoughts. Round-robin listing continues until all members indicate they have no further thoughts to share.

The output of this nominal phase of the meeting is a list of statements usually numbering eighteen to twenty five. Discussion follows during the next phase of the meeting; however, it is structured so that each thought receives attention before independent voting. This is accomplished by asking for clarification, or stating support or nonsupport of each thought listed on the flip chart. Independent voting then takes place. Each member, privately, in writing, selects priorities by rank-ordering (or rating). The group decision is the mathematically pooled outcome of the individual votes.

To summarize, the process of decision making in NGT is as follows:

1. Silent generation of thoughts (issues, problems, solutions, etc.) in writing.
2. Round-robin feedback from group members to record each thought in a terse phrase on a flip chart.
3. Discussion of each recorded thought for clarification and evaluation.
4. Individual voting on priority ideas or thoughts with the group decision being mathematically derived through rank-ordering or rating.

Thus, NGT overcomes a number of critical problems typical on interacting groups. The objectives of the process are:

- To facilitate independent idea generation and structured feedback.

- To balance participation among members.
- To incorporate mathematical voting techniques in the aggregation of group judgment

The NGT pays attention to each idea or thought and increases opportunity for each individual to assure that his or her thoughts are part of the group's frame of reference. The nominal (silent and independent) generation of ideas, the round-robin listing and serial discussion, and the independent voting all increase individual participation. By contrast, the conventional interacting group discussion generally succumbs to the influence of a few individuals due to status, personality, and other forces (Delbecq et al., 1986).

4.7.2 Contacting Consultants and Researchers

The types of data I collected through requests to consultants and researchers, and through the interviews with the coaches of SMTs at AT&T, are indeed *qualitative*. In order to collect information to address issues of the coaches and to build a training program for the coaches, I requested information from consultants and researchers on:

1. What *skills* do coaches of SMTs need, to be successful?
2. What is the *most effective method* of teaching these skills?
3. How do you measure or *test the effectiveness* of such methods and skills?
4. How do you *compare* these new skills to the traditional supervisor skills?
5. What new *behaviors* should coaches of SMTs practice?
6. What should be the shifts in *mindset* (trust, tolerance, patience, risks, etc.) of supervisors from traditional to SMT culture?

4.7.3 Interviews

Before I met the coaches formally (to conduct the NGT), I talked with a few of them, informally, just to introduce myself and find out how they perceived their change of roles from being supervisors to being coaches of SMTs. After administering the NGT I conducted interviews with some coaches in order to clarify some of the thoughts obtained from the NGT and to obtain more insight into the problems, difficulties, concerns and

issues they face. I asked them to describe some of these issues so that anyone could understand them.

After I presented the information obtained from consultants, researchers and the literature, I obtained feedback from the coaches, and their suggestions for improvement.

4.8 Analyzing Case Study Evidence

Yin (1984), explains that the potential analytic difficulties can be reduced if an investigator has a general strategy for analyzing the data -- whether such a strategy is based on theoretical propositions or a basic descriptive framework. In the absence of such a strategy, the investigator is encouraged to play with the data in a preliminary sense, as a prelude to developing a systematic sense of what is worth analyzing and how it should be analyzed (Yin, 1984). He says, given a general strategy, several specific analytic strategies can be used. Of these, three strategies: (1) pattern-matching, (2) explanation-building, and (3) time-series analysis, are effective ways of laying the groundwork for high-quality case studies. I used a combination of pattern-matching and explanation-building to analyze the data in my study.

CHAPTER 5 - RESULTS

The Nominal Group Technique (NGT) is basically a structured group process meeting with a purpose of creating a prioritized list of ideas, concerns, issues, problems, solutions, etc. that are generated by a specific "task statement." The NGT is structured by the following stages:

Stage 1: Silent Generation

Stage 2: Round Robin Feedback

Stage 3: Discussion and Clarification

Stage 4: Voting and Ranking

5.1 Stage 1: The NGT

I met with the coaches of the Self-Managing Work Teams at AT&T during their daily production meetings on the 19th and 20th of November 1992. Three separate meetings were held for the three shifts, and in each meeting I conducted the NGT to obtain a prioritized list of the issues and concerns faced by the coaches. The "task statement" given to the coaches at AT&T was the following question:

What are the issues and concerns you face in your new role as coach of a Self-Managing Work Team?

During the Silent Generation stage the coaches independently responded to the above question by listing their own concerns and issues on a blank paper. I gave them about 10 minutes to accomplish this task. I then asked for a single issue or concern from one coach at a time and wrote it on a flip chart for everyone to see. During this Round Robin Feedback stage I created a list of issues and concerns of coaches by going round the table collecting one thought at a time. I then gave the coaches about 10 minutes to clarify some of the ambiguous issues and concerns listed, and to discuss some of them so that everyone fully understood each others' concerns and related issues. Lastly, I asked the coaches to identify the six most important items listed on the flip chart, and rank these six items in order of importance giving a 6 to the most important and a 1 to the least important item. This Voting and Ranking process was also conducted in a rather structured manner according to the guidelines of the NGT.

All three meetings progressed without any flaws, and were indeed quite successful. Following are the results of the three meetings.

Note: The phrases or statements in quotes, in this section and subsequent sections, are those that were directly vocalized by some of the coaches. They are more personal than the some of the other issues.

5.1.1 Issues and Concerns of First Shift Coaches

1. Losing control in initial stage.
2. Limited accountability of the team-members but coaches still fully responsible.
3. Limitations of the group by company guidelines and contractual agreements / Interference of the union in self-management.
4. Teams take longer to get things done.
5. Loss of time and effort (resources) in implementing new ideas/suggestions.
6. "Now I'm being forced to deal with personalities."
7. Upper-management unwilling to "pay" for losses caused by the transition.
8. Lack of enthusiasm in the group - trying to keep them motivated.
9. Now it takes more of the coaches time.
10. The fear of creating one more level of management (coordinators).
11. "Is this (SMTs) just another program for AT&T?"
12. Upper-management still dictating direction of the team.
13. Being a coach is much harder and stressful than being a supervisor.
14. Routine and boring weekly team-meetings.
15. SMTs are more costly - time (over-time because of all the meetings), lost production, training, etc.
16. Inability to compensate high performers because of contractual agreements.

Table 5.1.1 - Voting and Ranking in Order of Importance - First Shift

| Rank | Issue or Concern | Individual Ranking | Total |
|-------------|---|---------------------------|--------------|
| 1 | Limited accountability of the team-members but coaches still fully responsible. | 6 2 5 | 13 |
| 2 | Upper-management unwilling to "pay" for losses caused by the transition. | 2 6 4 | 12 |
| 3 | Limitations of the group by company guidelines and contractual agreements / Interference of the union in self-management. | 5 6 | 11 |
| 4 | Being a coach is much harder and stressful than being a supervisor. | 4 5 | 9 |
| 4 | Upper-management still dictating direction of the team. | 3 2 4 | 9 |
| 6 | SMTs are more costly - time (over-time because of all the meetings), lost production, training, etc. | 3 3 2 | 8 |
| 6 | Takes longer to get things done. | 2 5 1 | 8 |
| 6 | Losing control in initial stage. | 5 3 | 8 |
| 7 | "Is this (SMTs) just another program for AT&T?" | 1 6 | 7 |
| 8 | "Now I'm being forced to deal with personalities." | 6 | 6 |
| 9 | Now it takes more of the coaches time. | 1 4 | 5 |
| 9 | Inability to compensate high performers because of contractual agreements. | 4 1 | 5 |
| 11 | Loss of time and effort (resources) in implementing new ideas/suggestions. | 1 3 | 4 |

5.1.2 Issues and Concerns of Second Shift Coaches

1. Overwhelmed new group coordinators with too much responsibility.
2. Resolving Conflict.
3. "What would be expected of me as a coach vs. a supervisor?"
4. Keeping teams focused in the right direction.
5. Cross training.
6. Releasing business control decisions to the team.
7. Monitoring team progress.
8. Encouraging teams to accept company goals as their goals.
9. Trying to get team-members to understand what part they play in this new environment (culture change).
10. Allowing the team to grow and mature in decision making.
11. Assuring the team stays focused on pertinent issues.
12. How and when to enforce/administer discipline.
13. Provide training and support for decision making.
14. How to encourage a team to accept responsibility for achieving goals.
15. "Will upper-management support the concept of SMTs?"
16. Resolving conflicts that will split the group and its efforts.
17. Concern that I don't over-coach.
18. Assuming the role of a mentor/coach of an established team.
19. The need for as many coaches after teams reach maturity or become self-managing.
20. "Would I be held responsible for decisions made by the SMTs?"
21. Achieving a spirit of cooperation among team-members.
22. Having them accept the transition from being supervised to self-managing.
23. Changing my management style to SMT culture.

Table 5.1.2 - Voting and Ranking in Order of Importance - Second Shift

| Rank | Issue or Concern | Individual Ranking | Total |
|-------------|--|---------------------------|--------------|
| 1 | Encouraging teams to accept company goals as their goals. | 6 4 5 4 | 19 |
| 2 | Keeping teams focused in the right direction. | 5 5 3 3 | 16 |
| 3 | Provide training and support for decision making. | 6 5 | 11 |
| 4 | Resolving Conflict. | 4 2 2 | 8 |
| 4 | How to encourage a team to accept responsibility for achieving goals. | 4 4 | 8 |
| 6 | Changing my management style to SMT culture. | 6 | 6 |
| 6 | Overwhelming new group coordinators with too much responsibility. | 6 | 6 |
| 6 | Having them accept the transition from being supervised to self-managing. | 6 | 6 |
| 9 | Cross training. | 5 | 5 |
| 10 | Concern that I don't over-coach. | 1 2 | 3 |
| 10 | Allowing the team to grow and mature in decision making. | 3 | 3 |
| 10 | Achieving a spirit of cooperation among team-members. | 3 | 3 |
| 10 | "Will upper-management support the concept of SMTs?" | 3 | 3 |
| 14 | "What would be expected of me as a coach vs. a supervisor?" | 2 | 2 |
| 14 | Releasing business control decisions to the team. | 1 1 | 2 |
| 14 | Resolving conflicts that will split the group and its efforts. | 2 | 2 |
| 17 | Monitoring team progress. | 1 | 1 |
| 17 | The need for as many coaches after teams reach maturity or become self-managing. | 1 | 1 |

5.1.3 Issues and Concerns of Third Shift Coaches

1. Team making all the decisions.
2. Lack of total team participation.
3. Upper-management does not know how well the process is going.
4. Team-members unwillingness to take on responsibility and pressures of other team-members.
5. Focus on corporate goals vs. self-serving interests.
6. Upper-management not receiving honest feedback.
7. Coordinators being another level of management.
8. Went too fast with the process (supervisory -> self-directed -> self-managed i.e. SMT).
9. Team-members handling conflict in a constructive manner (takes it as a personal assault).
10. Forcing those not interested into key positions as leaders (production/layout).
11. Lost time on minor issues.
12. Adjustment to being a coach vs. a supervisor (loss of complete control but not responsibility).
13. Started process too late - and currently have slowed it .
14. Upper-management impeding growth of team's decision making process.
15. Tough issues haven't been handled yet (handling non-performers in quality, job performance, non-team players, etc.).
16. Lack of recognition among team-members.
17. Conflict between Union / Company / SMTs.
18. Moving personnel adversely impacts the team (level III s).
19. Key positions (cost, quality, safety, employee relations coordinators) are impacted by popularity vs. qualifications.
20. Need continuous dynamics (self-motivations).
21. Need to develop a thought process of the key leaders (coordinators).

Table 5.1.3 - Voting and Ranking in Order of Importance - Third Shift

| Rank | Issue or Concern | Individual Ranking | Total |
|-------------|--|---------------------------|--------------|
| 1 | Conflict between Union / Company / SMTs. | 2 5 6 5 | 18 |
| 2 | Lack of total team participation. | 6 1 5 3 | 15 |
| 2 | Focus on corporate goals vs. self-serving interests. | 1 6 4 4 | 15 |
| 4 | Forcing those not interested into key positions as leaders (production/layout). | 3 2 2 5 | 12 |
| 5 | Upper-management impeding growth of team's decision making process. | 4 3 1 | 8 |
| 6 | Team making all the decisions. | 6 | 6 |
| 6 | Moving personnel adversely impacts the team (level III s). | 6 | 6 |
| 8 | Team-members handling conflict in a constructive manner. | 5 | 5 |
| 8 | Need continuous dynamics (self-motivations). | 4 1 | 5 |
| 10 | Tough issues haven't been handled yet (handling non-performers in quality, job performance, non-team players, etc.). | 4 | 4 |
| 11 | Team-members willingness to take on responsibility and pressures of other team-members. | 3 | 3 |
| 11 | Went too fast with the process (supervisory -> self-directed -> self-managed i.e. SMT). | 3 | 3 |
| 13 | Need to develop a thought process of the key leaders (coordinators). | 2 | 2 |
| 13 | Upper-management does not know how well the process is going. | 2 | 2 |
| 15 | Started process too late - and currently have slowed it . | 1 | 1 |

5.1.4 Descriptions of some of the issues

After the meetings and conversations with the coaches, I asked a few of them to briefly describe some of the stated issues in writing. The coaches described the issues as follows:

Conflict between union / company / SMTs.

"The union tends to challenge a lot of ideas and proposals that the teams and management try to implement, citing contract violations, instead of working together to create a win-win environment for all three parties involved."

Lack of total team participation.

"Non-participating team members can impede the growth of the team by negatively influencing undecided team members in the early development of the SMT. The participating team members tend to get overloaded with issues, and others are not willing to take on some of the tasks."

Focus on corporate goals vs. self-serving interests.

"After early stages of development and structure by the coaches and mentors, team goals should be driven by the needs of the business."

Forcing those not interested into key positions as leaders (production / layout).

"A perfect example of the union getting involved by making the layouts of each IBU be the production coordinator rather than the team being able to elect a production coordinator. All of the other coordinators are elected by the team."

Upper-management impeding growth of team's decision making process.

"Upper-management is unwilling to let the team make poor decisions and learn from their mistakes. Therefore, the team members get the wrong message, when they are overruled on some issues."

Moving personnel adversely impacts the team (level III's)

"When movement of team members and/or coordinators to other areas, and new people such as level III's enter the group from another area, the effectiveness of the team suffers until new members get up to speed."

Team-members handling conflict in a constructive manner

"Conflict and peer pressure are sensitive areas of SMTs. Most people have to get adjusted to taking criticism from a peer without getting defensive. On-going issue that will vary with individuals and situations."

Need continuous dynamics (self-motivations)

"Reinforcement of SMTs through training on all the different aspects of the process, so that team members stay motivated and focused on improvements and moving the team forward."

Encouraging teams to accept company goals as their goals

"Most teams do not find it easy to except company goals as their own. This is primarily due to the fear or mistrust of management's reactions if the goals are not achieved. We have an award system where teams are rewarded if they achieve their goals. This leads to the tendency of setting low standards for their goals."

Keeping teams focused in the right direction

"Most teams still focus on Quality of Work Life items. It is hard to focus on maintaining a cohesive team because personal items get precedence over functioning of the team."

Provide training and support for decision making

"Most teams do not explore all options before making a decision. They should take more time and think of the consequences of their decisions. Most members of the teams still look for leadership from the coach. The union still maintains a strong influence over some team members, and this interferes with the efforts of the team."

Resolving Conflict

"You have to be a good negotiator, use your listening skills, and above all be flexible in your use of discipline."

How to encourage a team to accept responsibility for achieving goals.

"Have the teams set their goals with minimum direction from management. You have to explain how the goals affect the objectives and earnings of the company."

Changing my management style to SMT culture.

"Some coaches do find it hard to relinquish control. But most teams still like the coach to give them input in decision making - they still look to the coach as a supervisor."

Having the team accept the transition from being supervised to self-managing.

"Some people just sit back and wait for things to happen. Many team members resent the role of the coordinator, and prefer to be led by the coach. Others 'take the bull-by-the-horn' and charge forward. Most have no problem with the simple issues of day-to-day production activities. But they rely on the coach for decisions on hard issues.

5.2 Stage 2: Refining the initial lists

The second meeting with the coaches of AT&T in Richmond was held on 7 January, 1993. The objective of the meeting was to refine the initial lists of issues and then do a simple cause-effect analysis. I wanted to find out how the coaches would prioritize the items after the cause-effect analysis. I also wanted to know, confidentially, the most important issue or concern each coach faced, and the most important immediate action that should be taken to resolve that issue or concern. The following steps were taken in order to achieve these objectives.

Step 1: Review initial lists (not the ranked lists) of **all three shifts**; merge like items, add new items, delete redundant items, and **create one common list** of issues and concerns.

Step 2: **Categorize** similar type of items.

Step 3: Do **Cause-Effect** analysis. That is, identify what items are causes (fundamental problems) and what items are effects (symptoms). For those items that are effects or symptoms, identify the underlying problems causing those effects.

Step 4: **Prioritize** the common list of issues and concerns (same method as first meeting).

Step 5: Each person, confidentially, on a blank sheet of paper ...

- Write THE MOST IMPORTANT issue or concern he/she faces.
- Write the most important immediate action that should be taken to resolve that issue or concern.

5.2.1 Results of Step 1: Merging, re-wording, adding and deleting items of the initial three lists

The coaches of each shift were asked to merge like items, delete items that now seem irrelevant or repeated, and re-word items to better describe the issues. Following is the output of this process - a common list of issues and concerns.

Losing control in initial stage.

Limited accountability of the team-members but coaches still fully responsible.

"Would I be held responsible for decisions made by the SMTs?"

Adjustment to being a coach vs. a supervisor (loss of complete control but not responsibility).

Limitations of the group by company guidelines and contractual agreements.

Interference of the union in self-management.

Conflict between Union / Company / SMTs.

Loss of time and effort (resources) in implementing new ideas/suggestions.

Teams take longer to get things done.

Lost time on minor issues.

"Now I'm being forced to deal with personalities."

How and when to enforce/administer discipline.

Upper-management unwilling to "pay" for losses caused by the transition.

"Will upper-management support the concept of SMTs?"

"Is this (SMTs) just another program for AT&T?"

Achieving a spirit of cooperation among team-members.

Lack of total team participation.

Lack of enthusiasm in the group - trying to keep them motivated.

Need continuous dynamics (self-motivations).

Now it takes more of the coaches time.

The fear of creating one more level of management (coordinators).

Upper-management still dictating direction of the team.

Being a coach is much harder and stressful than being a supervisor.

"What would be expected of me as a coach vs. a supervisor?"

"Changing my management style to SMT culture."

Routine and boring weekly team-meetings.

Inability to compensate high performers because of contractual agreements.

Overwhelmed new group coordinators with too much responsibility.

Resolving Conflict.

Team-members not handling conflict in a constructive manner (takes it as a personal assault).

Keeping teams focused in the right direction.

Cross training - Making time and facilities for cross training everyone.

Releasing business control decisions to the team.

Monitoring team progress.

Encouraging teams to accept company goals as their goals.

Focus on corporate goals vs. self-serving interests.

Trying to get team-members to understand what part they play in this new environment (culture change).

Allowing the team to grow and mature in decision making.

Provide training and support for decision making.

How to encourage a team to accept responsibility for achieving goals.

Concern that I don't over-coach.

Assuming the role of a mentor/coach of an established team.

The need for as many coaches after teams reach maturity or become self-managing.

Having them accept the transition from being supervised to self-managing.

Team making all the decisions.

Upper-management not receiving honest feedback.

Upper-management does not know how well the process is going.

Team-members unwillingness to take on responsibility and pressures of other team-members.

Went too fast with the process (supervisory -> self-directed -> self-managed i.e. SMT).

Forcing those not interested into key positions as leaders (production/layout).

Key positions (cost, quality, safety, employee relations coordinators) are impacted by popularity vs. qualifications.

Started process too late - and currently have slowed it .

Tough issues haven't been handled yet (handling non-performers in quality, job performance, non-team players, etc.).

Lack of recognition among team-members.

Moving personnel adversely impacts the team (level III s).

Need to develop a thought process of the key leaders (coordinators).

5.2.2 Results of Step 2: Categorizing Items

With the coaches help, I grouped the items in the common list into the following categories.

Upper Management related issues

Upper-management unwilling to "pay" for losses caused by the transition.

"Will upper-management support the concept of SMTs?"

"Is this (SMTs) just another program for AT&T?"

Upper-management still dictating direction of the team.

Upper-management not receiving honest feedback.

Upper-management does not know how well the process is going.

Union related issues

Limitations of the group by company guidelines and contractual agreements.

Interference of the union in self-management.

Conflict between Union / Company / SMTs.

Inability to compensate high performers because of contractual agreements.

Coach related issues

Losing control in initial stage.

Limited accountability of the team-members but coaches still fully responsible.

"Would I be held responsible for decisions made by the SMTs?"

Adjustment to being a coach vs. a supervisor (loss of complete control but not responsibility).

"Now I'm being forced to deal with personalities."

How and when to enforce/administer discipline.

Achieving a spirit of cooperation among team-members.

Lack of total team participation.

Lack of enthusiasm in the group - trying to keep them motivated.

Need continuous dynamics (self-motivations).

Now it takes more of the coaches time.

Being a coach is much harder and stressful than being a supervisor.

"What would be expected of me as a coach vs. a supervisor?"

"Changing my management style to SMT culture."

Resolving Conflict.

Team-members handling conflict in a constructive manner (takes it as a personal assault).

Keeping teams focused in the right direction.

Releasing business control decisions to the team.

Monitoring team progress.

Encouraging teams to accept company goals as their goals.

Focus on corporate goals vs. self-serving interests.

Trying to get team-members to understand what part they play in this new environment (culture change).

Allowing the team to grow and mature in decision making.

Provide training and support for decision making.

How to encourage a team to accept responsibility for achieving goals.

Concern that I don't over-coach.

Assuming the role of a mentor/coach of an established team.

Having them accept the transition from being supervised to self-managing.

Coordinator related issues

The fear of creating one more level of management (coordinators).

Overwhelmed new group coordinators with too much responsibility.

Forcing those not interested into key positions as leaders (production/layout).

Key positions (cost, quality, safety, employee relations coordinators) are impacted by popularity vs. qualifications.

Moving personnel adversely impacts the team (level III s).

Need to develop a thought process of the key leaders (coordinators).

Team related issues

Loss of time and effort (resources) in implementing new ideas/suggestions.

Teams take longer to get things done.

Lost time on minor issues.

Cross training - Making time and facilities for cross training everyone.

Team making all the decisions.

Team-members unwillingness to take on responsibility and pressures of other team-members.

Lack of recognition among team-members.

SMT Process related issues

Routine and boring weekly team-meetings.

The need for as many coaches after teams reach maturity or become self-managing.

Went too fast with the process (supervisory -> self-directed -> self-managed i.e. SMT).

Started process too late - and currently have slowed it .

Tough issues haven't been handled yet (handling non-performers in quality, job performance, non-team players, etc.).

5.2.3 Results of Step 3: Cause - Effect Analysis

Process:

1. For each shift meeting, I went back to the three initial lists (created by the NGT) and used the appropriate one for the cause-effect analysis. This was because I wanted the coaches to analyze the issues they had expressed, and not get involved with the issues of coaches from other shifts.
2. I took each item, one at a time, and asked them if it was a cause, i.e. a fundamental problem, or an effect of some other underlying problem, i.e. a symptom.
3. If the item was identified as a cause, I asked them what its effect was.
4. If it was a symptom or an effect, I asked them to identify the causes of that problem.
5. Each item on their list was thoroughly examined.
6. I then combined the results of this analysis to fit into the common list and categorized items of the previous two steps, and created the following tables.

Note: The expressed issues and concerns (from the common list) are in *italics*.

Also some issues were identified as effects of fundamental problems as well as causes of larger problems.

Table 5.2.1 - Union related issues

| CAUSE | EFFECT |
|--|---|
| Union environment. | <i>Inability to compensate high performers because of contractual agreements.</i> |
| <i>Limitations of the group by company guidelines and contractual agreements.</i> <i>Interference of the union in self-management.</i> <i>Conflict between Union / Company / SMTs.</i> | Not the best environment for SMTs. Causes schisms and splits. Internal disruptions. Obstructions to performance. |

Table 5.2.2 - Upper-Management related issues

| CAUSE | EFFECT |
|--|--|
| Structure and hierarchy still hasn't changed. | <i>Upper-management unwilling to "pay" for losses caused by the transition.</i> |
| <i>Upper-management unwilling to "pay" for losses caused by the transition.</i> | Lack of interest in teams. Team members detect a lack of real commitment. |
| AT&T's past programs never lasted. Reluctance to release more control to SMTs. | <i>"Will upper-management support the concept of SMTs?"</i> <i>"Is this (SMTs) just another program for AT&T?"</i> |
| <i>Upper-management still dictating direction of the team.</i> | Enthusiasm, creativity and effectiveness of the team diminishes. |
| Fear of reprisal from upper-management. | <i>Upper-management not receiving honest feedback.</i> <i>Upper-management does not know how well the process is going.</i> |
| <i>Upper-management not receiving honest feedback.</i> <i>Upper-management does not know how well the process is going.</i> | Deceive themselves. Misconception of reality. See what they want to see, not what is actually happening. |

Table 5.2.3 - Coach related issues

| CAUSE | EFFECT |
|--|---|
| <p>Insufficient training for coaches and teams. Lack of experience. Poor judgment by management and coaches.</p> | <p><i>Losing control in initial stage.</i></p> |
| <p>Restrictions placed on the structure of the SMTs because the plant is a union shop. - Contractual agreements - Lack of effective reward and recognition Teams make selfish decisions. Lack understanding of SMT concept and process. Implementation team did not provide direction.</p> | <p><i>Limited accountability of the team-members but coaches still fully responsible. "Would I be held responsible for decisions made by the SMTs?" Adjustment to being a coach vs. a supervisor (loss of complete control but not responsibility).</i></p> |
| <p>Because you can have personalities that can destroy the team. Lack of training for coaches. Understanding the coaches role.</p> | <p><i>"Now I'm being forced to deal with personalities." How and when to enforce/administer discipline.</i></p> |
| <p>Union obligations / contractual agreements. Inability to implement creative and meaningful ideas because of contractual agreements. Management and coaches stifle creative ideas. Coaches lack experience. Lack of motivation.</p> | <p><i>Lack of enthusiasm in the group - trying to keep them motivated. Need continuous dynamics (self-motivations).</i></p> |
| <p>A coach has to share knowledge and experience with coordinators and team. Explain why the task is necessary. Need to research and explain purpose of decision or task.</p> | <p><i>Now it takes more of the coaches time.</i></p> |

| | |
|---|--|
| <p><i>Being a coach is much harder and stressful than being a supervisor.</i></p> <p><i>"What would be expected of me as a coach vs. a supervisor?"</i></p> <p><i>"Changing my management style to SMT culture."</i></p> | <p>Reluctance to relinquish control.</p> |
| <p><i>Now it takes more of the coaches time.</i></p> <p><i>"Now I'm being forced to deal with personalities."</i></p> <p><i>How and when to enforce/administer discipline.</i></p> <p><i>Limited accountability of the team-members but coaches still fully responsible.</i></p> <p><i>"Would I be held responsible for decisions made by the SMTs?"</i></p> <p><i>Adjustment to being a coach vs. a supervisor (loss of complete control but not responsibility).</i></p> <p>Team looking for direction.</p> <p>Lack of proper training.</p> <p>Set in our ways.</p> <p>Implementation team did not provide direction.</p> | <p><i>Being a coach is much harder and stressful than being a supervisor.</i></p> <p><i>"What would be expected of me as a coach vs. a supervisor?"</i></p> <p><i>"Changing my management style to SMT culture."</i></p> |
| <p>Misunderstand the coordinator roles.</p> <p>Lack of communication.</p> <p>Uncertain role of coach in resolving conflict.</p> <p>Personalities.</p> <p>Not enough up-front training for the whole team as opposed to coaches and coordinators.</p> | <p><i>Resolving Conflict.</i></p> <p><i>Team-members not handling conflict in a constructive manner (takes it as a personal assault).</i></p> |
| <p><i>Keeping teams focused in the right direction.</i></p> | <p><i>Encouraging teams to accept company goals as their goals.</i></p> <p><i>Focus on corporate goals vs. self-serving interests.</i></p> |

| | |
|--|---|
| <p>Concern about misinterpreting information.</p> <p>Team not seeing the big picture.</p> <p>Giving too much responsibility without knowledge of the job requirements.</p> | <p><i>Releasing business control decisions to the team.</i></p> |
| <p><i>Monitoring team progress.</i></p> | <p>Make sure team progresses in right direction.</p> |
| <p><i>Trying to get team-members to understand what part they play in this new environment (culture change).</i></p> | <p>Fosters cooperation.</p> |
| <p>Allow teams to make decisions without fear of repercussions.</p> | <p><i>Allowing the team to grow and mature in decision making.</i></p> |
| <p><i>Provide training and support for decision making.</i></p> | <p>Getting everyone involved.</p> |
| <p>Lack of understanding SMT process.</p> | <p><i>How to encourage a team to accept responsibility for achieving goals.</i></p> |
| <p><i>Concern that I don't over-coach.</i></p> | <p>Not allowing the team to develop due to over-coaching.</p> |
| <p><i>Assuming the role of a mentor/coach of an established team.</i></p> | <p>Different styles of coaches.</p> <p>Adjusting to what has been established.</p> |
| <p>Team unable to develop self-confidence.</p> <p>Don't believe in the SMT concept.</p> <p>Lack of responsibility for team members.</p> <p>Negative attitudes.</p> <p>Peer pressure.</p> | <p><i>Achieving a spirit of cooperation among team-members.</i></p> <p><i>Lack of total team participation.</i></p> |
| <p>Giving credibility to their effort to self-manage.</p> | <p><i>Having them accept the transition from being supervised to self-managing.</i></p> |

Table 5.2.4 - Coordinator related issues

| CAUSE | EFFECT |
|--|---|
| Separation between the coordinator and the team. | <i>The fear of creating one more level of management (coordinators).</i> |
| Giving too much responsibility without knowledge of the job requirements. High coordinator requirements. | <i>Overwhelmed new group coordinators with too much responsibility.</i> |
| <i>Forcing those not interested into key positions as leaders (production/layout). Key positions (cost, quality, safety, employee relations coordinators) are impacted by popularity vs. qualifications.</i> | Don't have the best qualified people in the appropriate positions. Lose team moral. Coaches are totally responsible with limited control. |
| <i>Moving personnel adversely impacts the team (level III s).</i> | Automatic drop back in stages. Don't have the best qualified people in the appropriate positions. Lose team moral. |
| Lack of direction from the implementation team. Moving personnel. | <i>Need to develop a thought process of the key leaders (coordinators).</i> |
| <i>Need to develop a thought process of the key leaders (coordinators).</i> | Ineffective, self-serving, and costly decisions. No leadership direction. Long time to re-direct the thought process. |

Table 5.2.5 - Team related issues

| CAUSE | EFFECT |
|--|---|
| <p>Involvement of more people to make and implement decisions. Explain why the task is necessary. Need to research and explain purpose of decision or task. Lack of direction and effective leadership.</p> | <p><i>Loss of time and effort (resources) in implementing new ideas/suggestions. Teams take longer to get things done. Lost time on minor issues.</i></p> |
| <p><i>Cross training - Making time and facilities for cross training everyone.</i></p> | <p>Enhance overall performance.</p> |
| <p><i>Team making all the decisions.</i></p> | <p>Loss of control. Poor decisions. Improper direction.</p> |
| <p>Don't believe in the SMT concept. Lack of responsibility for team members. Negative attitudes. Peer pressure.</p> | <p><i>Team-members unwillingness to take on responsibility and pressures of other team-members.</i></p> |
| <p>Past practices.</p> | <p><i>Lack of recognition among team-members.</i></p> |

Table 5.2.6 - SMT Process related issues

| CAUSE | EFFECT |
|---|---|
| Present same old data, in the same way over and over. Lack of enthusiasm and commitment on the part of management. | <i>Routine and boring weekly team-meetings.</i> |
| <i>The need for as many coaches after teams reach maturity or become self-managing.</i> | Termination of my role as a coach. |
| <i>Went too fast with the process (supervisory -> self-directed -> self-managed i.e. SMT).</i> | No defined role for the coaches. Chaos. Cost the company. |
| Out of touch upper-management. Hierarchy. | <i>Started process too late - and currently have slowed it .</i> |
| Nobody can or will make the tough decisions. | <i>Tough issues haven't been handled yet (handling non-performers in quality, job performance, non-team players, etc.).</i> |

5.2.4 Results of Step 4: Prioritizing the common list

For this step of the "refining" process, I requested the coaches to select the six most important items from the common list. Then I asked them to rank these six items, giving a 6 to the most important and a 1 to the least important. Following are the summarized results.

Table 5.2.7 - The Prioritized Common List of Issues and Concerns

| RANK | ISSUE OR CONCERN | INDIVIDUAL RANKING | TOTAL |
|-------------|--|---------------------------|--------------|
| 1 | <i>Upper-management not receiving honest feedback. Upper-management does not know how well the process is going.</i> | 5 6 6 6 4 5 | 32 |
| 2 | <i>Limitations of the group by company guidelines and contractual agreements. Interference of the union in self-management. Conflict between Union / Company / SMTs.</i> | 4 6 4 5 6 6 | 31 |
| 3 | <i>Achieving a spirit of cooperation among team-members. Lack of total team participation.</i> | 3 4 5 6 5 6 | 29 |
| 4 | <i>Encouraging teams to accept company goals as their goals. Focus on corporate goals vs. self-serving interests.</i> | 6 3 6 4 3 1 4 | 27 |
| 5 | <i>Lack of enthusiasm in the group - trying to keep them motivated. Need continuous dynamics (self-motivations).</i> | 6 1 5 3 4 5 | 24 |

| | | | |
|----|---|-----------|----|
| 6 | <p><i>Limited accountability of the team-members but coaches still fully responsible.</i></p> <p><i>"Would I be held responsible for decisions made by the SMTs?"</i></p> <p><i>Adjustment to being a coach vs. a supervisor (loss of complete control but not responsibility).</i></p> | 2 2 2 5 6 | 17 |
| 7 | <p><i>How to encourage a team to accept responsibility for achieving goals.</i></p> | 3 4 3 6 | 16 |
| 8 | <p><i>Resolving Conflict.</i></p> <p><i>Team-members not handling conflict in a constructive manner (takes it as a personal assault).</i></p> | 1 5 1 2 4 | 13 |
| 9 | <p><i>Tough issues haven't been handled yet (handling non-performers in quality, job performance, non-team players, etc.).</i></p> | 6 3 3 | 12 |
| 10 | <p><i>Keeping teams focused in the right direction.</i></p> | 2 3 3 3 | 11 |
| 10 | <p><i>Forcing those not interested into key positions as leaders (production/layout).</i></p> <p><i>Key positions (cost, quality, safety, employee relations coordinators) are impacted by popularity vs. qualifications.</i></p> | 2 2 5 2 | 11 |
| 12 | <p><i>Upper-management unwilling to "pay" for losses caused by the transition.</i></p> | 5 1 4 | 10 |
| 13 | <p><i>"Will upper-management support the concept of SMTs?"</i></p> <p><i>"Is this (SMTs) just another program for AT&T?"</i></p> | 5 4 | 9 |

| | | | |
|----|---|---------|---|
| 13 | <i>Provide training and support for decision making.</i> | 5 4 | 9 |
| 15 | <i>Allowing the team to grow and mature in decision making.</i> | 4 4 | 8 |
| 15 | <i>Cross training - Making time and facilities for cross training everyone.</i> | 5 3 | 8 |
| 17 | <i>Loss of time and effort (resources) in implementing new ideas/suggestions. Teams take longer to get things done. Lost time on minor issues.</i> | 2 5 | 7 |
| 18 | <i>Being a coach is much harder and stressful than being a supervisor. "What would be expected of me as a coach vs. a supervisor?" "Changing my management style to SMT culture."</i> | 2 1 1 2 | 6 |
| 18 | <i>Team making all the decisions.</i> | 6 | 6 |
| 18 | <i>Lack of recognition among team-members.</i> | 6 | 6 |
| 21 | <i>Inability to compensate high performers because of contractual agreements.</i> | 3 1 1 | 5 |
| 21 | <i>Having them accept the transition from being supervised to self-managing.</i> | 5 | 5 |
| 21 | <i>Trying to get team-members to understand what part they play in this new environment (culture change).</i> | 3 2 | 5 |
| 24 | <i>The fear of creating one more level of management (coordinators).</i> | 4 | 4 |

| | | | |
|----|--|-----|---|
| 25 | <i>Losing control in initial stage.</i> | 3 | 3 |
| 25 | <i>Overwhelmed new group coordinators with too much responsibility.</i> | 3 | 3 |
| 25 | <i>Releasing business control decisions to the team.</i> | 2 1 | 3 |
| 25 | <i>Went too fast with the process (supervisory -> self-directed -> self-managed i.e. SMT).</i> | 3 | 3 |
| 29 | <i>Routine and boring weekly team-meetings.</i> | 2 | 2 |
| 29 | <i>Assuming the role of a mentor/coach of an established team.</i> | 2 | 2 |
| 29 | <i>Team-members unwillingness to take on responsibility and pressures of other team-members.</i> | 1 1 | 2 |
| 32 | <i>"Now I'm being forced to deal with personalities." How and when to enforce/administer discipline.</i> | 1 | 1 |
| 32 | <i>Upper-management still dictating direction of the team.</i> | 1 | 1 |
| 32 | <i>Moving personnel adversely impacts the team (level III s).</i> | 1 | 1 |

5.2.5 Results of Step 5: The Confidential Statement

I distributed a blank paper to every coach and asked them to (confidentially) state the most important issue or concern they face, and the most important immediate action that should be taken to resolve that issue. Some of the statements were from, or related to, the common list, but some were not. The feedback from the coaches is organized in the following table.

Table 5.2.8 - Important Personal Issues and Proposed Solutions

| MOST IMPORTANT ISSUE OR CONCERN OF EACH COACH | PROPOSED SOLUTION BY EACH COACH |
|---|---|
| Feeling the pressure to meet the production schedule and at the same time try to back-off so as to allow the team the chance to make decisions on the how's, what's and when's. | Upper-management needs to "bite the bullet" and make the necessary sacrifice(s) in order to effectively put SMWTs in place. Do not put so much pressure on making number of production level loaded to allow time for the SMWTs to "truly" come to fruition. Upper-management needs to back-off and let the teams establish time tables, schedules, etc. based on the customer's demand. |
| Getting the team to accept the SMWT concept and the commensurate responsibilities. | Re-educate team on the rewards of being self-managing. At present they do not trust management and feel that SMWTs are only a scheme to get them to accept more responsibility without pay. |
| The efforts of the team to get all members to accept a role in making a good SMWT and my actions without proper training to assist this process - Coach vs. old role of Supervisor. | Most coaches should have training before assuming the role, instead of finding your own way through the process. |
| Fully understanding the concept of coaching a SMWT. | Provide as much training as possible on SMWTs and what is expected prior to starting. |

| | |
|--|---|
| We started too late and are implementing too slow. Training is too long and is not focused enough on the entire team. | Spend more training time on the masses with regard to what corporate goals are, how decisions are made and can be made to achieve those goals, and how they can affect our future. |
| Finding ways to encourage team members to "buy in" to the process and work toward goals that benefit all of us (as a company). | Steps must be taken to move away from the barriers such as union/management guidelines and <u>trust must be built</u> so that team members believe what they hear and work toward improvements. |
| Create continuous participation among team members and maintain motivation. | Create projects of interest to involve other team members. Seek new job interest. Find out each team-member's interest level. Where are they relative to the team? What are each team-members expectations and contributions? |
| Maintaining interest at the SMWT meeting each week. | Give them projects (to discuss) which directly affect their job. Try to include everyone in responding to the issues. |
| Getting the team motivated to work on issues that they have control over. Most of the people still only want to come to work, do their job, go home, and just leave the problems behind. | Somewhat convince people that their involvement is necessary to keep this business going. Condition of employment. |
| Team members losing interest. | Be aware that coaches must keep members motivated. |

| | |
|--|---|
| Over-optimistic about the outcome of the SMWT concept and implementation. | Upper-management needs to know the whole truth. They need to be fully aware of the good and bad (success and failure) sides of the implementation progress to make timely adjustments. The concept is good but it needs to be tailored to different circumstances and situations. There is no "one size fits all." |
| Dealing with different personalities of team members. | Need training on this subject. |
| Union structure impeding growth of SM-WTs. | Agreement between management and union to allow more flexibility in rewards and recognition (compensation) for excellent team performance. |
| Group losing interest in Self-Management. | The company needs to agree with the union on procedures to handle poor performers and choose coordinators. |
| Achieving production goals with lost time from meetings, training, movement of personnel, etc. | Take a good look at what SMWTs are costing in real dollars. |
| Trying to keep high enthusiasm both within me and the team. | I don't know. |
| Real fear of the decisions upper management makes and how they affect my life both inside and outside the plant. | Pray. |

5.3 Some tips and advice to the Coaches

I wrote to several consultants and researchers and requested information on the transition of supervisors to coaches. To my request, I received many articles written by these consultants. After carefully reading all this information, I selected what I thought might be helpful information to the coaches. I then structured this information, which relates to the issues identified by the coaches, in table and bullet format. This section is,

therefore, a somewhat structured summary of the information I received from the consultants and what I have read in the literature. I have not drawn direct relationships between this advice (or tips) and the issues identified by the coaches. This is to give the coaches freedom to pick the appropriate tips to suit their individual issues and concerns. After all, they know best about their personal concerns. The advice is structured to address some of the identified issues and can be used as a basis on which to build training programs. They specifically relate to issues such as:

- Dealing with different personalities.
- Administering discipline.
- Lack of enthusiasm in teams - trying to keep team-members motivated.
- Expectations of a coach vs. a supervisor.
- Changing management style to SMT culture.
- Adjustment to being a coach vs. a supervisor.
- Resolving conflict.
- Keeping teams focused in the right direction.
- Encouraging teams to accept company goals.
- Releasing business control decisions to the team.
- Monitoring team progress.
- Allowing the team to grow and mature in decision making.
- Encouraging team to accept responsibility for achieving goals.
- Achieving a spirit of cooperation among team-members.
- Having the team accept the transition from being supervised to self-managing.

The information is arranged according to its authors, beginning with the work of R. Moberg and K. Harrington (1988), followed by C. C. Manz and H. P. Sims (1980 - 1992), J. A. Klein (1984 - 1990), and P. A. Posey (1990).

5.3.1 From the work of R. Moberg and K. Harrington (1988)

The following tables and explanations of shifts in mindset, behavior, and skills of supervisors and managers, are adapted from a paper by Moberg and Harrington (1988).

Table 5.3.1 - Shift in mindset of supervisors and managers

| TRADITIONAL CONCEPTION | SMT CONCEPTION |
|--|--|
| DOESN'T TRUST PEOPLE to do what's right (treats them like children) | TRUST PEOPLE to do what's right (treat them like adults) |
| PEOPLE ARE A LIABILITY: focus on their weaknesses | PEOPLE ARE AN ASSET: focus on their strengths |
| "I AM THE BOSS" (preference for autocratic & authoritarian style) | DEVELOPER OF INDIVIDUALS AND TEAMS (preference for participative and empowering style) |
| HAVING TO KNOW IT ALL | INSPIRES OTHERS TO LEARN such that all feel responsible for finding the answers. |
| COMFORT IN OWN EXPERIENCE and well-defined situations (focus on what is) | HIGH TOLERANCE FOR AMBIGUITY and experimentation (focus on what could be) |
| SATISFIES OWN NEEDS: supports management. | RESPONSIVE TO MEMBER NEEDS: supports teams |
| ADVERSE TO RISK: appears invincible & superior. | WILLING TO TAKE RISKS: displays vulnerability. |

Trust people to do what's right - We can't treat employees as children and at the same time expect them to take responsibility for the successes and future of the business.

- Treat people the way you would like to be treated.

People are an asset - This is an organization for our employees, where their creative work, well being, health and physical development can flourish. You should:

- Provide vigorous support for organization members.
- Focus on their strengths, not weaknesses.
- Create a vision of greatness for yourself; expect your team to do the same.

Developer of individuals and teams - Have them share in the management of the business unit. Become participative and empowering by:

- Letting shared responsibility and control take the place of the "hero" carrying the burden alone.
- Recognizing that, as managers, we become more powerful as we nurture the power of those we serve.
- Realizing true delegation means transferring psychological ownership to the delegates -- really let go.
- Becoming known and appreciated as a true developer and promoter of people: develop strong, self-confident, independent employees

Inspires others to learn - Let everyone feel individually responsible for finding answers.

- People live up (or down) to our expectations of them -- expect the best!
- Find ways to interact daily on a developmental basis.

Develops a high tolerance for ambiguity and experimentation - Focus on what could be.

- If our primary commitment is to contribute, be of service to our users, treat people well, and maintain our integrity, then we have to expect adventure, uncertainty, and risk. Learn to embrace them!
- An experiment is a conscious effort to learn things you don't already know. Remember that the results may not be a tremendous success but the learning is always valuable.

Responsive to needs of organization members - Be a giver and contributor.

- Support the needs of the team: turn the organization chart "upside down" -- and then see your role as serving the people at the top.

Willing to take personal risks - Be flexible and adaptable; display vulnerability; admit your mistakes.

- Become willing to give up the mantle of "heroic invincibility"

- Remember that a mistake is simply another learning opportunity; that making intelligent mistakes is part of the price you pay for personal and company growth.
- Have the courage to risk criticism or rejection for not always conforming to accepted practice.

Table 5.3.2 - Shift in behaviors of supervisors and managers

| TRADITIONAL CONCEPTION | SMT CONCEPTION |
|---|---|
| ACTS AS A ROLE MODEL FOR "HERO" OR "LONE RANGER" | ACTS AS A ROLE MODEL FOR HIGH-INVOLVEMENT MANAGEMENT |
| TIGHTLY CONTROLS information and resources | PROVIDES ALL MEMBERS WITH relevant information, resources and support. |
| PERPETUATES AND MAINTAINS STATUS QUO through enforcement of rules, procedures and policies. | SEEKS OUT AND INITIATES new ways of doing business; innovates. |
| SUPPRESSES DIFFERENCES; strives for conformance and consistency. | ENCOURAGES A DIVERSITY of opinions and approaches; accepts conflicts; welcomes disagreements. |
| COMPETITIVE, CONTROLLING, AND DOMINANT OVER OWN "TURF"; builds walls between people and departments | COLLABORATES WITH AND SUPPORTS peers and other departments. |
| JUDGMENTAL AND CRITICAL of everybody; intimidating. | ACCEPTS PEOPLE THE WAY THEY ARE; enhances their self-esteem. |
| SHOWS INDIFFERENCE; treats people like spare parts | SHOWS EMPATHY; consider people's feelings; is caring & nurturing |
| ELICITS DEFENSIVENESS; does not ask for feedback. | SEEKS AND RECEIVES FEEDBACK on own behavior. |

Acts as a role model for High-Involvement Management.

- Behaves in ways that are congruent with high-involvement ideals and values -- incongruence undermines your credibility.

Provides all members with relevant information, resources, and support.

Seeks out and initiates new ways of doing business; innovates.

- Risk-taking must ripple throughout the organization.

Encourages a diversity of opinions and approaches. Accepts conflicts; welcomes disagreements.

- Remember that none of us is as smart as all of us.
- Creates an atmosphere where people feel free to disagree without fear of reprisal.

Collaborates with and supports peers and other departments. Manages boundaries effectively; is a barrier buster.

Accepts people the way they are. Enhances their self-esteem.

Shows empathy; considers people's feelings; is caring and nurturing.

Openly and actively seeks feedback on own behavior.

- Asking for and receiving feedback on your behavior from all the people you work with is empowering to them.

Table 5.3.3 - Shift in skills of supervisors and managers

| TRADITIONAL CONCEPTION | SMT CONCEPTION |
|---|--|
| EXPERT ON TECHNICAL and administrative tasks | ENCOURAGES AND DEVELOPS EXPERTISE throughout the organization; shares knowledge |
| A GOOD AND ACTIVE TALKER | IS A GOOD AND ACTIVE LISTENER |
| INDIVIDUAL PROBLEM-SOLVER & DECISION-MAKER | FACILITATES TEAM PROBLEM-SOLVING AND DECISION-MAKING |
| MOTIVATES SUBORDINATES through rewards and punishments | MOTIVATES TEAMS AND INDIVIDUALS THROUGH INVOLVEMENT |
| DEVELOPS OWN CAPABILITY; teaches, trains, & tells | DEVELOPS CAPABILITY IN SELF & OTHERS |
| DEVELOPS GOOD FOLLOWERS | DEVELOPS GOOD INITIATORS |
| PLANS, ORGANIZES, DIRECTS & CONTROLS | MAKES PLANNING, DIRECTING & CONTROLLING ACTIVITIES EMERGE FROM THE GROUP; builds shared responsibility in teams. |
| SETS GOALS FOR BUSINESS UNIT & subordinates | FACILITATES THE DEVELOPMENT OF A SHARED VISION for your business unit |
| UNCONSCIOUS OF ORGANIZATION DESIGN and its impact on behavior | CARRIES OUT ORGANIZATION ANALYSIS AND DESIGN |

Encourages and develops expertise throughout the organization.

- Provides resources and support for continuous development of individual and team skills in social, technical, and administrative areas.
- Uses every opportunity to share own experience and to learn from others.

Is a good and active listener. Asks people how they feel & listens closely; asks, "what is your opinion?"

Facilitates team problem-solving and decision-making (process facilitation and design)

- Considers how each problem can be solved in a way that further develops member commitment and capabilities.
- Finds a balance between need for completion of tasks and concern for how the tasks are completed.

Motivates team individuals through involvement.

Develops team maturity through coaching, counseling, and nurturing, i.e., empowering self and others.

- Creates excitement
- Builds trust and openness
- Makes people feel significant

Develops capability in self and others. Is a learner as well as a teacher.

- Institutionalizes "learning how to learn", which lies at the heart of continuous improvement.
- Organizes, leads, and evaluates experiments.

Develops good initiators. Develops people who can initiate ideas and concepts.

Makes planning, organizing, directing, & controlling activities emerge from the group.

Builds shared responsibility in teams.

- Taking on these responsibilities yourself can be an impossible task.
- Lets workers become "the lowest level of management."

Facilitates the development of a shared vision for the business unit. Helps the teams set goals in support of that vision.

Carries out organization analysis and design. Develops an understanding of how structures, rules, roles, systems, processes, beliefs, outcomes and environment all affect each other.

5.3.2 From the work of C. C. Manz and H. P. Sims (1980 -1992)

Superleadership can help subordinates learn and effectively practice self-leadership. First, a Superleader must recognize what self-leadership is all about. The related self-leadership strategies are presented in table 5.3.4. By mastering behavioral-focused self-leadership strategies, such as self-set goals and self-administered rewards, people can work through difficult and sometimes unattractive tasks. Furthermore, by building in the natural rewards of work that promote feelings of competence, self-control, and purpose, workers can motivate themselves to achieve higher performance through natural enjoyment. Finally, the establishment of effective thought patterns through the management of beliefs, imagined experience, and self-talk can contribute to progress toward excellence. By modeling encouraging, reinforcing, and otherwise facilitating these self-leadership processes in subordinates, a leader can become a Superleader (Manz and Sims, 1989).

Table 5.3.4 - Self-Leadership Strategies

| BEHAVIORAL FOCUSED STRATEGIES | |
|--------------------------------------|--|
| Behavior | Strategy |
| Self-Set Goals | Setting goals for your own work efforts. |
| Management of Cues | Arranging and altering cues in the work environment to facilitate your desired personal behaviors. |
| Rehearsal | Physical or mental practice of work activities before you actually perform them. |
| Self-Observation | Observing and gathering information about your own specific behaviors that you have targeted for change. |
| Self-Reward | Providing yourself with personally valued rewards for completing desirable behaviors. |
| Self-Punishment | Administering punishments to yourself for behaving in undesirable ways (this strategy is generally <i>not</i> very effective). |

Table 5.3.4 - Self-Leadership Strategies (Cont.)

| COGNITIVE FOCUSED STRATEGIES | |
|--|---|
| Building Natural Rewards into Tasks | <p>Self-redesign of where and how you do your work to increase the level of natural rewards in your job. Natural rewards that are part of, rather than separate from, the work (i.e., the work, like a hobby, becomes the reward) result from activities that cause you to feel:</p> <ul style="list-style-type: none">• a sense of competence• a sense of self-control• a sense of purpose |
| Focusing Thinking on Natural Rewards | <p>Purposely focusing your thinking on the naturally rewarding features of your work.</p> |
| Establishing Constructive Thought Patterns | <p>Establishing constructive and effective habits or patterns in your thinking (e.g., a tendency to search for opportunities rather than obstacles embedded in challenges) by managing your:</p> <ul style="list-style-type: none">• beliefs and assumptions• mental imagery• internal self-talk |

Manz and Sims (1987), further, give the following advice for successful leadership of SMTs:

- Encourage the group to solve its own problems.
- Encourage the group to assign tasks to its members on its own.

- Encourage group to be flexible in its work (i.e., maintain flexible task boundaries and do whatever needs to be done that the work group is capable of).
- Communicate in a way that is truthful and believable to group members.
- Encourage work group to be self-reinforcing of high group performance.
- Encourage work group to be self-critical of low group performance.
- Encourage work group to set performance goals.
- Encourage work groups to monitor, be aware of, and evaluate their level of performance.
- Encourage work group to have high expectations for group performance.
- Encourage work group to go over an activity and "think it through" before actually performing the activity.
- Communicate group views to upper management (i.e., support group) and management views to the group - serve as a open and honest communication link.
- Encourage open communication among group members, including the exchange of information for learning new jobs.
- Set personal goals for your work efforts.
- Arrange and alter cues in the work environment to facilitate your desired personal behaviors.
- Observe and gather information about your own specific behaviors that you have targeted for change.
- Search for opportunities rather than obstacles embedded in challenges - establish constructive thought patterns.

According to Manz and Sims (1991), an effective leader does not bend the wills of others to his or her own. Rather, the effective leader empowers others and gives them ownership of their jobs. They call this "Superleadership." The fundamental idea behind Superleadership is to help employees become "superfollowers" - to help them master self-leadership skills. Manz and Sims (1991) describe seven steps that leaders should follow to become a "superleader":

Step 1: Become an effective self-leader

Set specific, challenging but achievable goals and reward yourself for your own accomplishments. Redesign your own job so that you find it more motivating while still meeting your responsibilities. Practice thinking constructively and positively so that you take advantage of opportunities rather than retreating from obstacles.

Step 2: Model self-leadership for followers

Once you've mastered some self-leadership strategies yourself, vividly display these effective techniques for your followers to learn from. Demonstrate self-leadership strategies in a clear and credible manner, and give followers a chance to try them out for themselves and to adapt them to their own needs.

Step 3: Encourage followers to set their own goals

Help followers to learn the importance of setting challenging but realistic targets for their performance. First, help them set their goals, then gradually allow them to set goals for themselves.

Step 4: Create positive thought patterns

Help followers to see their own potential and capabilities. Help them to believe in themselves. Also, encourage them to look for the opportunities nested in problems rather than focusing on all the reasons to give up and stop trying.

Step 5: Reward self-leadership (and promote constructive critical feedback)

Recognize and reward followers for initiative, taking on responsibility, and using self-leadership strategies. The focus of praise should shift to effective self-leadership rather than just performance. Also, as followers become more confident, they will be better able to accept constructive critical feedback on how they can improve. The key is that the feedback is constructive. And over time, the follower should develop the ability to provide his or her own constructive feedback.

Step 6: Promoted self-leading teams

Encourage followers to work together and help, encourage and reinforce one another.

Step 7: Facilitate a self-leadership culture

Work to establish values and norms that center on initiative and self-leadership. If the first six steps are carried out effectively, this process should unfold naturally. In general, encourage, guide, and reward self-leadership behavior while continually demonstrating in your own actions effective self-leadership.

5.3.3 From the work of J. A. Klein (1984 - 1990), and P. A. Posey (1990)

Janice Klein and Pamela Posey (1990) studied the role of supervision in traditional versus new work systems. Following is summary of their findings:

"At the traditional site, **outstanding supervisors** are characterized as being strongly goal oriented self-starters. They like their jobs and let others know it. They push for quality goals, provide clear direction to the workers, and give timely and accurate feedback to motivate them. They tend to coach their workers and share information with them. They enjoy challenges, and look on problems as such rather than stumbling blocks. They are flexible people who have high tolerance for the stress inherent to the work they do. In addition, they take responsibility for the actions and outcomes of their units, know how to get the right people involved in the problem solving process, and take the initiative to do so. Finally, they are the supervisors who look beyond the immediate boundaries of their areas to understand the plant and company as a whole. They push to achieve company goals, not just the targets in their immediate area."

"The profile of outstanding supervisors in the high commitment (SMT) plant is strikingly similar. They have developed reputations for delivering what they said they will, and this gives them credibility which allows them to shape and influence performance. They understand what developing the teams means in practical terms, and are able to share their skills and knowledge willingly with team members. They believe in and demonstrate power sharing and turn decision making into learning experiences for the teams. They are enthusiastic, committed, and flexible: they view ambiguity and the lack of structure as a challenge rather than as a frustration. They are not reluctant to take control in a crisis, and recognize that they have the responsibility and authority to do so. Yet, they are committed to the goals of teamwork and the participative spirit, and find ways to foster the development of this spirit within the team and plant."

In comparing average versus outstanding supervisors, Janice Klein and Pamela Posey found three important aspects which contributed to success in both plants:

1. *A strong mutual respect between outstanding supervisors and their employees.*

Outstanding supervisors respect their workers abilities and efforts. They are viewed as honest and trustworthy and are noted for treating people fairly. This credibility, in turn, leads to their ability to motivate their employees.

2. *Outstanding supervisors accept responsibility for getting the job done.*

In the traditional plant they accept and follow through on their responsibilities, and take pride in accomplishing their tasks. Although team advisor (coach) responsibilities are not as well defined in the SMT culture, they willingly assume responsibility and strive for improvement because they view it as the right thing to do, not because they are told to.

3. *Outstanding supervisors are described as top-notch problem solvers.*

In the traditional plant supervisors do much of the problem solving themselves, while team coaches are skillful in helping the teams do much of the problem solving. But in both plants, outstanding supervisors take the lead in process improvement and possess the knowledge and skills to pull together the needed resources to get the problems solved.

"In essence, outstanding supervisors in both plants are characterized as competent, caring, and committed to both the work and the people. They are highly respected within the plants, and are perceived as credible, honest, and trustworthy. Outstanding supervisors find ways to motivate their workers toward better performance: they all use some participative methods regardless of the type of system in which they work. *They are described by workers, peers, and their bosses as goal oriented and people centered.*" (Klein and Posey, 1990).

5.4 Feedback from the coaches

I presented, to the coaches, the information in section 5.3 (Some tips and advice to the Coaches) together with section 2.8 (Leadership of Self-Managing Teams) as back-

ground material. Afterwards, I spoke to some of the coaches specifically to obtain their comments on this information. Following is the feedback I received from these coaches.

- They regarded the information to be very valuable.
- Found some of the advice to directly address many of the identified issues.
- They really liked Table 5.3.3 - "Shift in skills of supervisors and managers." In their SMT overview class, they use a table similar to this, but not as complete, and appropriate as this. The staff in the Human Resource Department said this was much better than what they use to illustrate the shift in skills of supervisors in the SMT culture, and asked me if they could use this in future classes. I advised them to request permission from the authors or give the authors due credit if this information was to be used in future training.
- Liked Manz and Sims concept of "Superleadership." They had never heard of this concept and were very happy to have been exposed to it. In fact one coach was "thrilled" about it. To this coach, it was the highlight of all the information. She said, the advice of these researchers will help her to be an effective facilitator and a successful coach. "After all," they said, "we all want to be 'superleaders'."
- They commended me on the organization of the information, its diversity, specificity, and appropriateness.
- Some of them had seen similar type of information, in articles and books they had read. But, they liked the way I had organized it in tables and bullet-form. They viewed it as a summary of what they had read (and more), and considered it to be an excellent refresher course, and a very handy reference.
- The information reinforced some of the key concepts that they had learned.
- Reminded them of some of the key issues they have to be sensitive to. After all, due to the lack of continuous training and reinforcement, they said they forget some of the relevant skills and behaviors of successful coaching.

- The tables and bullets provide the main highlights of being an effective coach, and serves as an excellent check-sheet.
- The information - specially the work of Moberg and Harrington - they said, is very appropriate to be used in training in the transition of supervisors to coaches.
- All the information was very useful. According to some of the coaches, "a lot of it hit the nail on the head."
- They found the comparison of "old ways" (Traditional Concept) versus the "new ways" (SMT Concept) to be very useful and enlightening. Some commented that this comparison helped them to understand the new philosophy and visualize a much clearer picture.

CHAPTER 6 - CONCLUSION

In November, 1992, I began my study of the issues related to the new role of supervisors (coaches) at the AT&T plant in Richmond by first conducting the Nominal Group Technique (NGT). The result of this meeting was a prioritized list of issues and concerns faced by the coaches of each of the three shifts. During this visit, I also conducted interviews with some of the coaches to get a better understanding of the issues they face. My next step was to refine these three initial lists and come up with one common list for the entire plant.

The second meeting with the coaches of AT&T in Richmond was held on 7 January, 1993. The objective of the meeting was to refine the initial lists of issues and then do a simple cause-effect analysis. I wanted to find out how the coaches would prioritize the items after the cause-effect analysis. I also wanted to know, confidentially, the most important issue or concern each coach faced, and the most important immediate action that should be taken to resolve that issue or concern. The following steps were executed in order to achieve these objectives.

Step 1: Review initial lists (not the ranked lists) of **all three shifts**; merge like items, add new items, delete redundant items, and **create one common list** of issues and concerns.

Step 2: **Categorize** similar type of items.

With the coaches help, I grouped the items in the common list into the following categories:

1. Upper-management related issues
2. Union related issues
3. Coach related issues
4. Coordinator related issues
5. Team related issues
6. SMT process related issues

Step 3: Do **Cause-Effect** analysis. That is, identify what items are causes (fundamental problems) and what items are effects (symptoms). For those items that are effects

or symptoms, identify the underlying problems causing those effects.

Process:

1. For each shift meeting, I went back to the three initial lists (created by the NGT) and used the appropriate one for the cause-effect analysis. This was because I wanted the coaches to analyze the issues they had expressed, and not get involved with the issues of coaches from other shifts.
2. I took each item, one at a time, and asked them if it was a cause, i.e. a fundamental problem, or an effect of some other underlying problem, i.e. a symptom.
3. If the item was identified as a cause, I asked them what its effect was.
4. If it was a symptom or an effect, I asked them to identify the causes of that problem.
5. Each item on their list was thoroughly examined.
6. I then combined the results of this analysis to fit into the common list and categorized items of the previous two steps.

Step 4: Prioritize the common list of issues and concerns (same method as first meeting).

For this step of the "refining" process, I requested the coaches to select the six most important items from the common list and then rank them as they did for the NGT.

Step 5: Each person, confidentially, on a blank sheet of paper ...

- Write THE MOST IMPORTANT issue or concern he/she faces.
- Write the most important immediate action that should be taken to resolve that issue or concern.

I had two reasons for doing this step:

Reason 1- To make upper-management aware of the most important personal issues the coaches face (the NGT results in the most important issues the group faces), and to let them know the solutions to these issues proposed by the coaches.

Reason 2 - To obtain the solutions from the coaches themselves, for only they know their problems best. After all, the fundamental idea of participative manage-

ment is to get everyone involved in solving problems. In addition, the coaches are very bright people.

Most of these personal issues were similar to, or related to the ones identified in the NGT, but some did not rank high as a result of group consensus. However these are as important as those issues identified by the group as being the most important. Therefore I feel this step plays a major role in the whole process of studying the issues faced by the coaches.

6.1 Key Problem Areas

From the meetings I held, the conversations I had, and the information I gathered from the coaches, I have identified some key problem areas faced by the AT&T plant.

Key Problem Area 1:

Lack of basic understanding of the new philosophy and concepts of a team-based environment, and differing understanding of this new environment between management, union, coaches and teams. This key problem is reflected in the following issues and concerns expressed by the coaches:

Upper-management still dictating direction of the team.

Interference of the union in self-management.

Conflict between Union / Company / SMTs.

"Would I be held responsible for decisions made by the SMTs?"

Lack of enthusiasm in the group - trying to keep them motivated.

"What would be expected of me as a coach vs. a supervisor?"

Trying to get team-members to understand what part they play in this new environment (culture change).

Allowing the team to grow and mature in decision making.

Achieving a spirit of cooperation among team-members.

Lack of total team participation.

Overwhelmed new group coordinators with too much responsibility.

Team-members unwillingness to take on responsibility and pressures of other team-members.

Went too fast with the process (supervisory -> self-directed -> self-managed i.e. SMT).

Key Problem Area 2:

Perception that upper-management is not committed. This is reflected in the following concerns:

"Will upper-management support the concept of SMTs?"

"Is this (SMTs) just another program for AT&T?"

Upper-management unwilling to "pay" for losses caused by the transition.

Upper-management not receiving honest feedback.

Upper-management does not know how well the process is going.

Releasing business control decisions to the team.

Key Problem Area 3:

Lack of necessary knowledge and skills to be effective coaches. The following issues of the coaches reflect this key problem:

Losing control in initial stage.

"Now I'm being forced to deal with personalities."

How and when to enforce/administer discipline.

"Changing my management style to SMT culture."

Keeping teams focused in the right direction.

Encouraging teams to accept company goals as their goals.

How to encourage a team to accept responsibility for achieving goals.

Loss of time and effort (resources) in implementing new ideas/suggestions.

One other key problem area that I gather to be prevalent in a subtle manner (not expressed openly by the coaches) at AT&T, is one that relates to incentives. I feel that coaches silently ask themselves questions such as "what is in this for me?" and "why change?" AT&T has not yet changed their compensation system to support the concept of self-managing teams. They have also fallen short of providing other incentives for their supervisors to change, and become coaches. Therefore, it is justified to assume that the coaches may feel this way. Many researchers and consultants caution organizations embarking on team-based management systems about the importance of these types of subtle, hidden or implicit but crucial concerns of their employees.

As a result of my analysis of the issues and concerns faced by the coaches, I offer the following recommendations to the management and coaches of the AT&T plant:

6.2 Recommendations to Upper-Management

1. Establish a joint union-management task force (team) to examine union-management related issues and other plant-wide problems associated with the new culture.

One way you can win the trust and commitment of all employees and show that you are dedicated to the system of Self-Managed Work Teams, is to form teams yourselves. Forming this joint union-management team will send a clear signal of your commitment to team-based management.

2. Let this joint team use the union and upper-management related issues identified in this report as a basis on which to build their mission of problem identification, analysis and solution.
3. The joint team should further analyze these issues and others that may arise in the process. They should do systematic cause-effect analysis and seek the underlying or fundamental causes of these issues and problems.

This team-based approach is consistent with the overall concept of participative or team-based management system that your plant has embarked upon.

4. The joint team should visit other unionized plants that have established SMWTs or are in the process of implementing teams, and discuss relevant issues with them. Learn from others.
5. Strive to establish cooperation with the union. Discuss and debate the issues. Build trust and openness. Communicate as much as you can, and as frequently as you can. The joint team should meet as often as possible.

6. Design the team-based management system for your plant. These systems differ vastly from plant to plant. Learn from other unionized plants, and build your own system. Do not use a "cook-book recipe." Clearly define the role of the union and the role of management in this process. Develop "plant understanding" of your team-based system, through extensive communication.
7. Support this joint task force in all their efforts and remain patiently as they endeavor to confront plant-wide problems.
8. Empower the coaches and provide them the means to solve their problems.
9. Let teams develop and flourish from a bottom-up perspective: from hourly workers to coaches to managers. Establish a "total" team-based management system, and win loyalty, trust and commitment from all.
10. Institute *continuous learning* throughout the organization.

6.3 Recommendations to Coaches

1. Form (all coaches) into three teams, for each of the three shifts.
2. Each team should be empowered and be responsible for solving their problems and addressing the relevant issues and concerns of each coach.
This is consistent with empowering the hourly workers (SMWTs) and holding them responsible for solving their own problems.
3. Model the behavior you expect from your teams. The best way to do this is to form teams yourselves, and establish congruence with the team-based environment.
4. Create a contact or a line of communication between the three (shift) teams of coaches.

5. Continue the work done in this research. Involve in extensive analysis of problems and identify fundamental causes before accepting quick and easy solutions. Otherwise you may end up with good solutions to the wrong problems.
6. Meet as often as possible - initially, at least once a week - and openly discuss the issues identified in this report, and others that may be revealed later.
7. Explore methods of overcoming relevant issues. Very often a fellow coach may have a solution to, or may have previously overcome, a problem currently faced by another coach. You can advise each other. All of you are smart people. But remember that none of you are as smart as all of you together! That is why the team approach is so important. You will find, that for many of the identified issues, you don't need an outside consultant to come and tell you what to do. You are bound to have the necessary resources, guidance, and expertise within your group to confront those issues.
8. Identify specific kinds of training that are most useful for you at a particular time. The content of the needed training should emerge from the coaches. You may then work with the Human Resources Department to establish a process by which to administer the training.
9. Gear the training to coincide with the "teachable moment." The teachable moment is when:
 1. You have the need to learn.
 2. You are ready to learn.
10. Each coach should participate in the design and development of the training program. After all, you are promoting a participative culture. Once again you should be a good role model. Every coach should be involved in the process.

6.4 Concluding Thoughts

I enjoyed working with the coaches and the Human Resources Department at the AT&T plant on this mutually beneficial project. Many consultants and researchers have warned organizations embarking on implementing self-managing teams, about the

sensitivity of the issues faced by the coaches of these teams. This aspect of the new team based management philosophy is crucial to successful implementation of SMTs. Many organizations have recognized this and are endeavoring to address the issues and concerns of the coaches. AT&T is one such organization.

My earnest hope is that AT&T will take the issues and concerns expressed by their coaches, and reported in this thesis, into serious consideration. The coaches have also proposed solutions to some of the more important problems and issues they face. They are the ones who know their problems best, and therefore know what kind of solutions may work best. It is up to upper-management to support these proposed solutions and provide the necessary resources for the coaches to be successful. I have attempted make things much clearer by categorizing the issues and concerns according to their relationships. I also hope that upper-management and the coaches will seriously consider the recommendations that I have made in this report. The conclusions and recommendations were made after a careful analysis of the issues stated by the coaches, and conversations I had with the coaches.

As a result of this thesis, I hope managers and consultants will be better able to understand the position of coaches of SMTs. This research is designed for managers of organizations implementing SMTs to understand the system-wide problems encountered by former supervisors of the SMTs, and to help them design appropriate programs to fulfill training needs of these supervisors. Consultants and researchers, teaching and studying self-managing teams, may also use this research to design and construct their training programs incorporating comments, ideas, and suggestions included in this report.

I hope this study will stimulate further research on the many aspects of self-managing teams, help to improve the implementation of SMTs in organizations, enrich understanding of the phenomenon of SMTs, and enhance training programs for the coaches. Top Management needs to understand the systemic problems and issues faced by the coaches, and plan comprehensive training programs, not only for the team members, but also for these team leaders in order to ensure a smooth and amicable transition to self-managing teams. Consultants need to constantly improve the training programs they conduct for coaches of SMTs. The fulfillment of the above objectives is the contribution of this research to society. I hope this study will make the road easier for organizations making the transition to self-managing teams.

REFERENCES

- American Productivity and Quality Center Newsletter (1989b) "Austin Cablevision Hooked on Self-Managed Work Force," November.
- Barry, D. (1991) "Managing the Bossless Team: Lessons in Distributed Leadership," Organizational Dynamics, Vol. 20, No: 1.
- Bittel, L. R. and Ramsey, J. E. (1982) "The Limited Traditional World of Supervisors," Harvard Business Review, July-August.
- Cabot, S. J. (1989) "How Ready Are Your Employees to Be Involved?" Supervisory Management, November.
- Cheney, A. (1990) "Should We Take This On? What Companies Hope to Accomplish With Self-Managed Work Teams," Proceedings from the 1990 International Conference on Self-Managed Work Teams, Denton, Texas.
- Collins, R., Ross, R. A. and Ross, T. L. (1989) "Who Wants Participative Management?" Group and Organizational Studies, Vol. 14, No. 4, December.
- Cummings, T. G. (1978) "Self-Regulating Work Groups: A Socio-Technical Synthesis," Academy of Management Review, July.
- Cummings, T. G. and Griggs, W. H. (1977) "Worker Reactions to Autonomous Work Groups: Conditions for Functioning, Differential Effects, and Individual Differences," Organization & Administrative Sciences, Winter.
- Deming, W. E. (1986) *Out of the Crisis*, Cambridge, MA: MIT Press.
- Dillingham, B. and Delaney, F. (1990) "Advanced Self-Managed Work Teams," Proceedings from the 1990 International Conference on Self-Managed Work Teams, Denton, Texas.
- Dumaine, B. (1990) "Who Needs a Boss?" Fortune, May 7.
- Easton, S. (1990) "High Performance/High Commitment: Self-Managing Teams Respond to the Competitive Challenge," Proceedings from the 1990 International Conference on Self-Managed Work Teams, Denton, Texas.
- Geber, B. (1992) "From Manager Into Coach," Training, February.

Geber, B. (1992) "Saturn's Grand Experiment," Training, June.

Glaser, R. (1990) "Moving Your Team Toward Self-Management," report published by Organizational Design and Development, Inc. and presented at the 1990 International Conference on Self-Managed Work Teams, Denton, Texas.

Goodman, P. S., Devadas, R. and Hughson, T. L. G. (1988) "Groups and Productivity: Analyzing the Effectiveness of Self-Managing Teams," in *Productivity in Organizations* (Ed. Campbell and Campbell).

Grazier, P. B. (1990) "Overcoming Resistance to Employee Involvement," American Productivity and Quality Center, May.

Hackman, J. R. (1984) *Designing Effective Work Groups*.

Hackman, J. R. (1986) "The Psychology of Self-Management in Organizations," *Psychology & Work: Productivity, Change, and Employment* (M. Pallack and R. Perloff, Eds.), Washington, DC: American Psychological Association.

Hackman, J. R. and Lawler, E. E. (1971) "Employee Reactions to Job Characteristics," Journal of Applied Psychology, 55: 259-286.

Harper, B. and Harper, A. (1989) *Succeeding as a Self-Directed Work Team*, Croton-on-Hudson, NY: MW Corporation.

Harrison, E. L. (1992) "The Impact of Employee Involvement on Supervisors," National Productivity Review, Autumn.

Hersey, P. and Blanchard, K. (1982) *Management of Organizational Behavior* (Forth ed. Englewood Cliffs, NJ: Prentice-Hall, Inc.

Hoerr, J. (1990) "Sharpening Minds for a Competitive Edge," Business Week, Dec. 17.

Hoerr, J.; Bremner, B. and Oneal, M. (1989) "The Payoff From Teamwork," Business Week, July 10.

Hoerr, J., Pollock, M. A., and Whiteside, D. E. (1986) "Management Discovers the Human Side of Automation," Business Week, September 29.

Hoerr, J. (1989) "Benefits for the Back Office, Too," Business Week, July 10.

Hughes, B. (1991) "25 Stepping Stones for Self-Directed Work Teams," Training, December.

Kanter, R. M. (1984) *The Changemasters: Innovation and Entrepreneurship in the American Corporation*, New York: Simon and Slusher.

Katz, A. J. and Laughlin, P. (1990) "Views on Self-Directed Workteams from the Line to the Front Office," Journal of Quality and Participation, December.

Kelly, M. (1991) *The Adventures of a Self-Managing Team*, Pfeiffer & Company, San Diego, CA.

Kepner, C. H. and Tregoe, B. B. (1981) *The Rational Manager*, Princeton, NJ: Keptner-Tregoe, Inc.

Klein, J. A. (1984) "Why Supervisors Resist Employee Involvement, " Harvard Business Review, September-October.

Klein, J. A. and Posey, P. A. (1986) "Good Supervisors Are Good Supervisors - Anywhere," Harvard Business Review, Nov.-Dec.

Klein, J. A. (1988) The Changing Role of First-Line Supervisors and Middle Mangers, U.S. Department of Labor, Bureau of Labor-Management Relations and Cooperative Programs, Contract No. J 9-P-4-0021.

Klein, J. A. and Posey, P. A. (1990) "Traditional versus New Work Systems Supervision: Is there a Difference?" in *Revitalizing Manufacturing: Text and Cases*, Irwin Inc.

Kurstedt, H. A. (1988) Management Systems Model, Working papers, Management Systems Laboratories, Virginia Tech.

Lawler, E. E. (1986) *High Involvement Management*. San Francisco: Josey-Bass.

Lawler, E. E. (1988) "Transforming from Control to Involvement," in *Corporate Transformation* (Ed. R. Kilman, T. Covin, and Associates) San Francisco: Jossey-Bass.

Lawler, E. E., Ledford, G. E., and Mohrman, S. A. (1989) Employee Involvement in America: A Study of Contemporary Practice, Houston: American Productivity and Quality Center.

Lawler, E. E. (1992) "The New Plant Approach: A Second Generation Approach," Organization Dynamics.

Leedy, P. D. *Practical Research: Planning and Design*. Third Edition, New York: Macmillan Publishing Company.

Macy, B. A., Peterson, M. F., and Norton, L. W. (1989) "A Test of Participation Theory in a Work Redesign Field Setting: Degree of Participation and Comparison Site Contrasts," Human Relations, Vol. 42, No. 12.

Macy, B. A., Norton, J. J., Bliese, P. D., and Izumi, H. (1990) "The Bottom Line Impact of New Design and Redesign: North American From 1961-1990," Proceedings from the 1990 International Conference on Self-Managed Work Teams, Denton, Texas.

Magjuka, R. F. (1992) "Survey: Self-Managing Teams Achieve Continuous Improvement Best," National Productivity Review, Winter.

Manz, C. C. and Angle, H. (1986) "Can Group Self-Management Mean a Loss of Personal Control: Triangulating a Paradox," Group & Organization Studies, December.

Manz, C. C. and Sims, H. P. (1980) "Self Management as a substitute For Leadership: A Social Learning Theory Perspective," Academy of Management Review, Vol. 5, No. 3.

Manz, C. C. and Sims, H. P. (1984) "Searching for the Unleader: Organizational Member Views On Leading Self-Managed Groups," Human Relations, Vol. 37, No. 5.

Manz, C. C. and Sims, H. P. (1986) "Leading Self-Managed Groups: A Conceptual Analysis of a Paradox," Economic & Industrial Democracy, Vol. 7.

Manz, C. C. and Sims, H. P. (1987) "Leading Workers to Lead Themselves: The External Leadership of Self-Managing Work Teams," Administrative Science Quarterly, Vol. 32.

Manz, C. C. and Sims, H. P. (1989) *Superleadership: leading others to Lead Themselves*, Prentice Hall Press.

Manz, C. C. and Sims, H. P. (1991) "Superleadership: Beyond the Myth of Heroic Leadership," American Management Association.

Manz, C. C. and Muto, M. (1990) "Superleadership Creates a New Perspective for Managers," Journal of Quality and Participation, June.

Manz, C. C. and Newstrom, J. W. (1990) "Self-Managing Teams in a Paper Mill: Success Factors, Problems, and Lessons Learned," International Human Resource Management Review.

- Manz, C. C.; Keating, D. E. and Donnellon, A. (1991) "Preparing for an Organizational Change to Employee Self-Management: The Managerial Transition," Organizational Dynamics.
- Manz, C. C. (1986) "Self-Leadership: Toward and Expanded Theory of Self-Influence Process in Organizations," Academy of Management Review, Vol. 11.
- Manz, C. C. (1991) "Developing Self-Leaders Through SuperLeadership," Supervisory Management, September.
- Manz, C. C. (1991) "Helping Yourself and Others to Master Self-Leadership," Supervisory Management, November.
- Manz, C. C. (1991) "Leading Self-Managed Employees: Some Issues and Challenges," Journal of Management Systems, Vol. 3.
- Manz, C. C. (1992) "Self-Leadership... the Heart of Empowerment," Journal of Quality and Participation, July/August.
- Maurer, R. (1992) *Caught In The Middle*, Productivity Press, Cambridge, MA.
- Moberg, R. and Harrington, K. (1988) "Now We're Going To Use Our Hearts Too! The Changing Role of Supervision" Report written for Esso Resources Canada Limited, June.
- Musselwhite, E. and Moran, L. (1990) "The Road to Self-Direction: Strategies for Success," Proceedings from the 1990 International Conference on Self-Managed Work Teams, Denton, Texas.
- Orsburn, J., Moran, L., Musselwhite, E., and Zenger, J. H. (1990) *Self-Directed Work Teams*, Homewood, IL: Business One Irwin.
- Patton, M. Q. (1990) *Qualitative Evaluation and Research Methods*. Second Edition, Newbury Park, CA: Sage Publications, Inc.
- Sashkin, M. (1984) "Participative management is an Ethical Imperative," Organization Dynamics, Spring.
- Semler, R. (1989) "Managing Without Managers," Harvard Business Review, September-October.
- Shipper, F. and Manz, C. C. (1992) "Employee Self-Management Without Formally Designated Teams: An Alternative Road to Empowerment," Organizational Dynamics.

Simmers, D. and Priest, J. (1989) "The Expanding Role of the Manufacturing Supervisor," IM, March-April.

Sink, D. S. (1989) *Planning and Measurement in Your Organization of the Future*, Norcross, GA: IIE Press.

Sundstrom, E., George, J., Perkins, M., Myers, S., Hoffman, D., and Smolek, J. (1990) "Work-Team Context, Development, and Effectiveness in a Manufacturing Organization: A Longitudinal Study," Proceedings from the 1990 International Conference on Self-Managed Work Teams, Denton, Texas.

Thurrow, L. (1984) "Revitalizing the American Corporation," California Management Review, Fall.

Trist, E. L., Susman, G. I., and Brown, G. R. (1977) "An Experiment in Autonomous Working in an American Underground Coal Mine," Human Relations, Vol. 13, No. 3.

Van Aken, E. M. (1991) "A Multiple Case Study On The Information System To Support Self-Managing Teams," Unpublished Masters Thesis, ISE, Virginia Tech.

Van Aken, E. M. and Sink, D. S. (1992) "Addressing Problems and Implementation Issues of Self-Managing Teams," Proceedings from the International Industrial Engineering Conference, Chicago, IL.

Wall, T. D., Kemp, N. J., Jackson, P. R. and Clegg, C. W. (1986) "Outcomes of Autonomous Work Groups: A Long-Term Field Experiment," Academy of Management Journal, Vol. 29, No. 2.

Walton, R. E. (1977) "Work Innovations at Topeka: After Six Years," Journal of Applied Behavioral Sciences, Vol. 13, No. 3.

Walton, R. E. (1985) "From Control to Commitment in the Workplace," Harvard Business Review, March-April.

Walton, R. E. and Schlesinger, L. A. (1979) "Do Supervisors Thrive in Participative Work Systems?" Organizational Dynamics, Winter.

Wellins, R. S.; Wilson, J.; Katz, A. J.; Laughlin, P. L.; Day, C. R.; and Price, D. (1991) *Self-Directed Teams: A Study of Current Practice*, Study conducted by Development Dimensions International, Association for Quality and Participation, and Industry Week.

Wellins, R. S.; Byham, W. C. and Wilson, J. M. (1991) *Empowered Teams*, Jossey-Bass Publishers.

Wellins, R. S. (1991) "Taking the Mystery Out of Self-Directed Teams," Tapping the Network Journal, Spring/Summer.

Wellins, R. S. (1992) "Building Self-Directed Teams," Technical & Skills Training, May/June.

Westlund, A., Stoddard, J. and Zaffarano, R. (1990) "Starting Up a Greenfield Site with Self-Managed Work Teams: A People Development Perspective," Proceedings from the 1990 International Conference on Self-Managed Work Teams, Denton, Texas.

Yin, R. K. (1984) *Case Study Research: Design and Methods*, Sage Publications, Beverly Hills, CA.

APPENDICES

DESCRIPTIONS:

Letter to Consultants and Researchers

This is the letter I sent to consultants and researchers seeking information on the new role of coaches of self-managing teams.

Relevant Company Documentation:

1. Fact Sheet - AT&T Microelectronics, Richmond Works

Plant history and other facts about the Richmond plant.

2. Cultural Transformation and SMWT Training

This is the training conducted by outside consultants during the initial stages of the transformation process.

3. CAMP AT&T

The training conducted for the natural work group on teamwork, individual and group awareness, and team skills. Training involves indoor and outdoor activities.

4. Culture Plotting Chart

This was developed by the consultants responsible for the transformation process, to plot the culture of a company. AT&T's current culture (dotted line) is weighted heavily toward "Hierarchy." They want to be more on the "Adhocracy" and "Enterprise" boxes (solid line).

5. SMWT Functional Structure

Plant-specific structure of self-managing teams.

6. Star Diagram of AT&T

The five star points are the focus of the SMWTs at AT&T.

7. SMWT Guidelines at AT&T

These operating principals were designed by the Implementation Team to help guide the Self-Managed Work Teams.

8. Coach Responsibilities

Responsibilities of the coaches - developed by upper-management.

9. Advisor Role in SMWTs

Advisor traits and the comparison of roles between controlling and facilitating leaders.

Vita

Letter to Consultants and Researchers

Dear

Self-managing teams have captivated my curiosity as a graduate student, and I am fascinated by the successes of organizations using them. Therefore, I chose to do research on self-managing teams (SMTs) for my Masters Thesis in Industrial and Systems Engineering at Virginia Tech. Dr. Scott Sink, the President of the Institute of Industrial Engineering and Director of the Virginia Productivity Center, and Ms. Eileen Van Aken, an Associate, have influenced my thinking a great deal.

I am specifically interested in *the new role of supervisors* in redesign plants. Their successful transition from being "traditional" supervisors to being coaches or facilitators of SMTs is undoubtedly critical to organizations and therefore it is a useful and interesting research subject. Some of my research questions are:

1. What **skills** do coaches of SMTs need, to be successful?
2. What Is the most effective method of teaching these skills?
3. How do you measure or test the effectiveness of such methods and skills?
4. How do you compare these new skills to the traditional supervisor skills?
5. What new **behaviors** should coaches of SMTs practice?
6. What should be the shifts in **mindset** (trust, tolerance, patience, risks, etc.), of supervisors from traditional to SMT culture?

I will be truly grateful if you could send any information pertaining to these questions, to me at: 1001 University City Blvd. # B-9, Blacksburg, VA 24060

I will also be grateful for any additional information such as titles of books and articles that might be useful to me, and names and addresses of other consultants and researchers to whom I should write. Your help and guidance in my research, I will deeply appreciate.

Thanking You Sincerely,

Asela Gunawardena
Graduate Student, VPI&SU.

**AT&T MICROELECTRONICS
RICHMOND WORKS
FACT SHEET**

Plant History

Production began in November 1972 when the first employees were hired locally. The pilot plant was located in a rented facility one mile from the present Richmond Main Plant. In 1973, production started in the Main Plant located on Laburnum Avenue. In 1980, additional floor space known as the Richmond Works Annex was leased on Glen Alden Drive. To increase production in the Main Plant for high technology multilayer boards, 90,000 square feet of floor space was added in 1982. In addition, 76,000 square feet of floor space for production of double-sided rigid boards was completed in November 1985. The Main Plant and Annex facilities were consolidated in July 1990.

Floor Space

| | |
|--------|---------|
| Office | 86,000 |
| Mfg. | 614,000 |
| Total | 700,000 |

Land

150 Acres

Employees

Approx. 1930 (as of September 1992)

Chief Operating Officer

Doreen S. Yochum

Manufacturing Vice President

Robert E. Collins

Products

The Richmond Works is one of the largest printed circuit board manufacturing facilities in the world. Products include multilayer and double-sided rigid boards, and backplanes (connectorized printed circuit boards). These products are embedded in telecommunications equipment ranging from telephone handsets to digital switching systems and computers.

Major AT&T Customer Locations

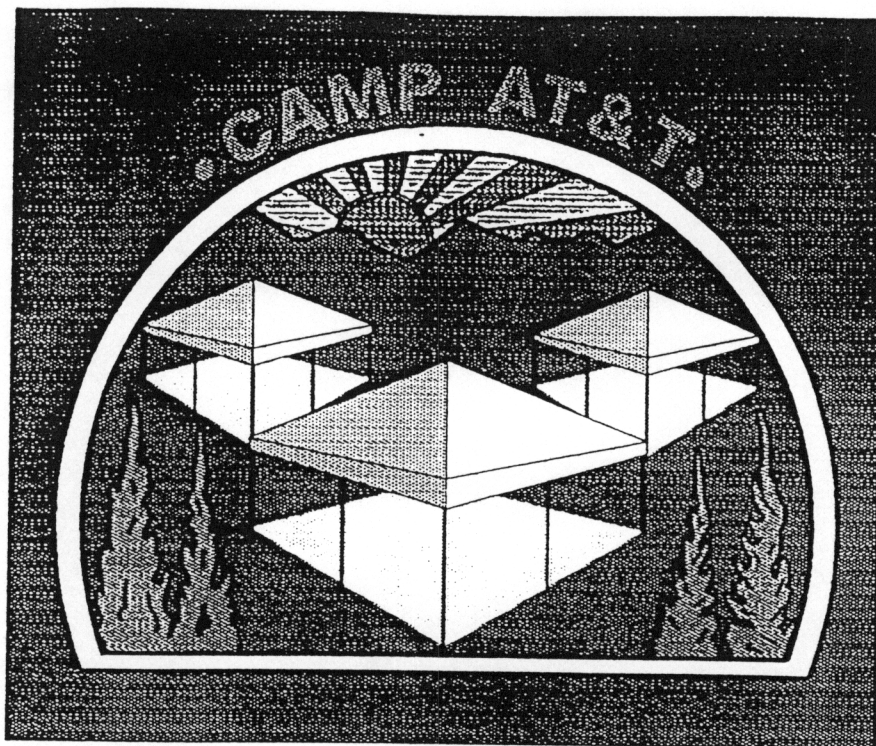
| | |
|--|------------------|
| Oklahoma City Works | Dallas Works |
| Merrimack Valley Works (N. Andover, Mass.) | Columbus Works |
| North Carolina Works (Winston-Salem) | Shreveport Works |
| Denver Works | Little Rock |

CULTURAL TRANSFORMATION & SMWT TRAINING

| SUBJECT | COURSE CONTENT | PARTICIPANTS | LENGTH |
|---------------------------------------|--|--|--------|
| SURVEY CULTURE TRANS- FORMATION | Behavioral baseline - Evaluate current culture/create mode of pre-ferred culture | All employees Function managers, supervisors, engineers, union stewards, lay-out operators, maintenance | 1 Day |
| CULTURE FOLLOW-UP | - Analyze what changes the group has to make to ensure their new culture - Create a vision for the future based on core values - Commit to changes planned | Same as above | 1 Day |
| LEADERSHIP SKILLS | - Motivate human behavior & effectively bring the best out in people - Understand the proc. of innovation, managing change & the sources of resistance in people & organizations - Develop individual skills to support the culture change process - Conduct creative problem solving meetings - Involve people in development of creative solutions; build commitment for actions | Same as above | 6 Days |
| CAMP AT&T | - Individual awareness - Group awareness - Teaming skills | Natural work group including hourly universe | 2 Days |

CULTURAL TRANSFORMATION & SMWT TRAINING

| SUBJECT | COURSE CONTENT | PARTICIPANTS | LENGTH |
|----------------------|--|------------------------|--------|
| JUMP START OF TEAMS | <ul style="list-style-type: none"> - Stage I, Forming Expectations, structure, goals, authority - Stage II, Norming Working-together issues, decision making processes, shared leadership, team critique - Stage III, Storming Managing differences within the team itself - Stage IV, Producing Constructively manage agreement, avoid "groupthink" mentality; goal & achievement centered, members retain individuality while interdependently pursuing common goals - Stage V, Team manages itself | Natural work group | 4 Days |
| COORDINATOR TRAINING | <ul style="list-style-type: none"> - Sharpening observational skills - Intervention skills - How to observe & analyze conflicts - Structure & content for weekly meetings - How to lead a participative meeting | Five team coordinators | 2 Days |



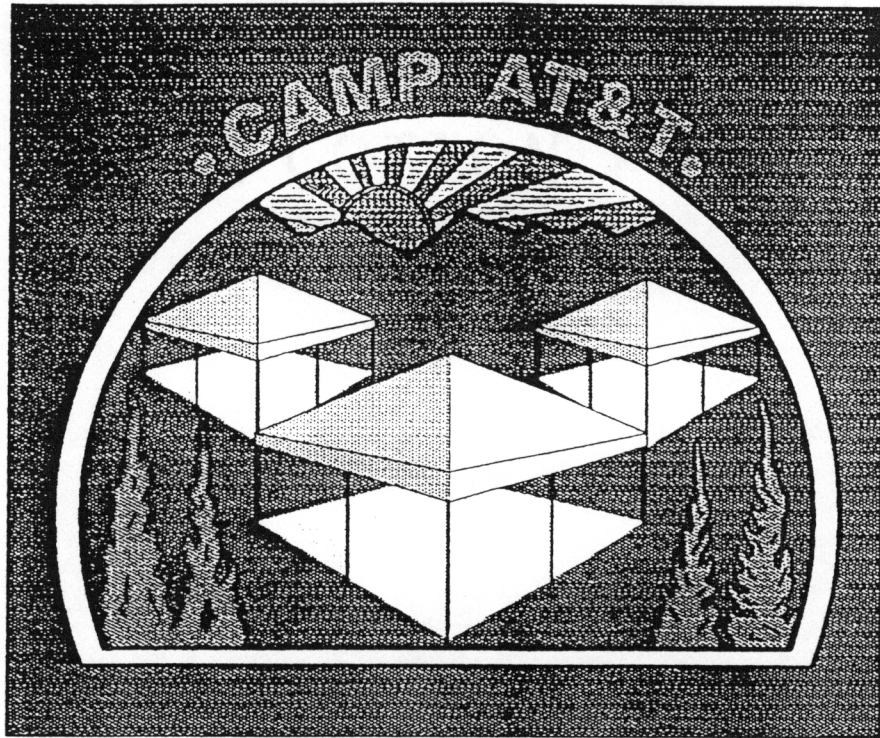
Accomplishment Through Teamwork

Accomplishment Through Teamwork builds skills in three general areas which are essential for effective teams.

INDIVIDUAL AWARENESS - Participants use their ability to trust and to provide support as well as their feeling of competence.

GROUP AWARENESS/BONDING - Participants learn about all team members, including strengths and areas where support is needed, forming strong bonds with team members.

TEAM SKILLS - Participants learn how to achieve results together. They develop a shared vision, create a workable strategy and effectively implement this strategy.



TEAM BUILDING AGENDA

INDOOR ACTIVITIES

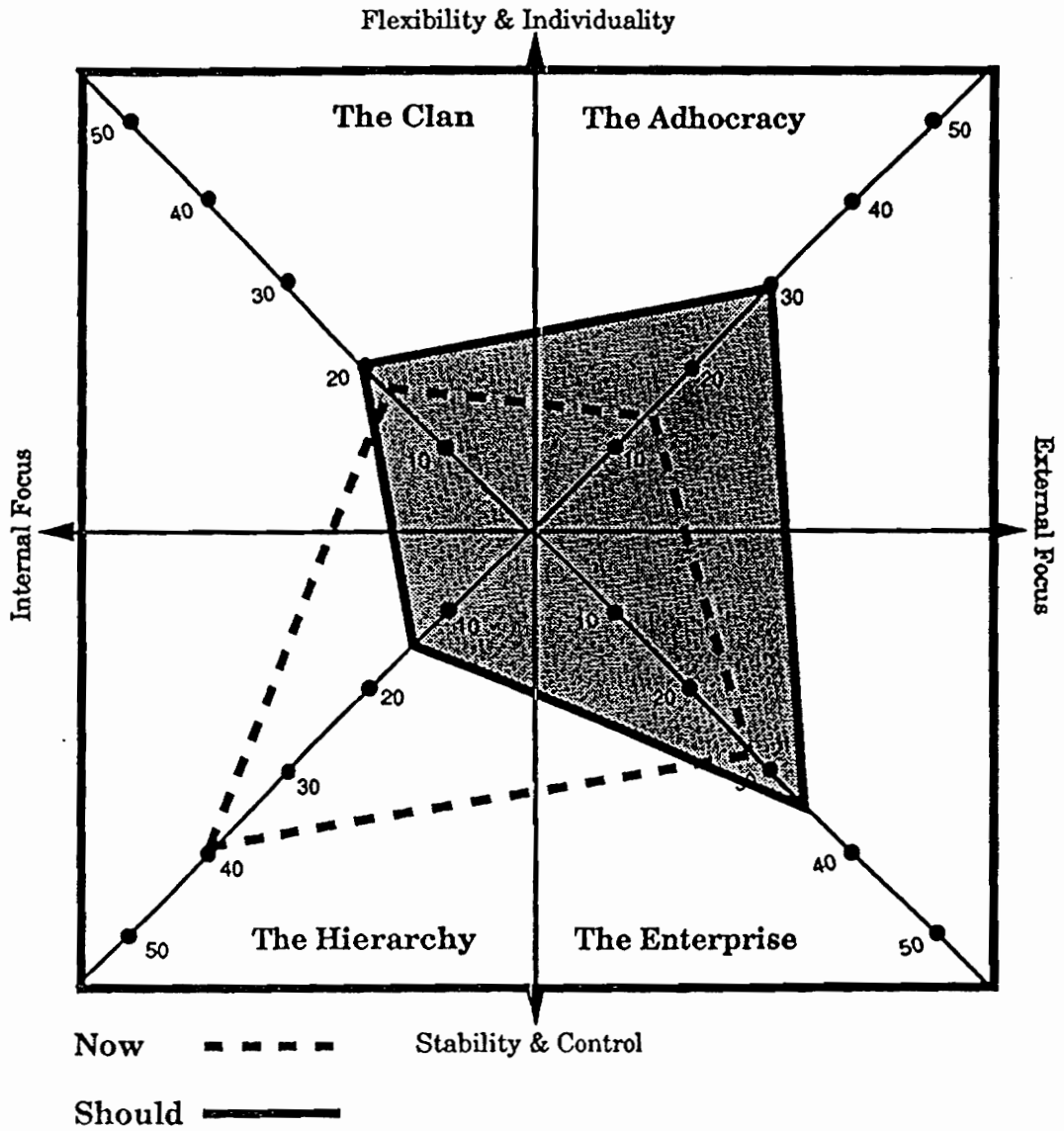
1. Introduction
2. Review Of Objectives
3. Define Team And Responsibilities
(Group Participation)
4. "DO RIGHT" Videotape
(Featuring Lou Holtz)
5. Desert Survival Exercise
6. Giving And Receiving
Feedback

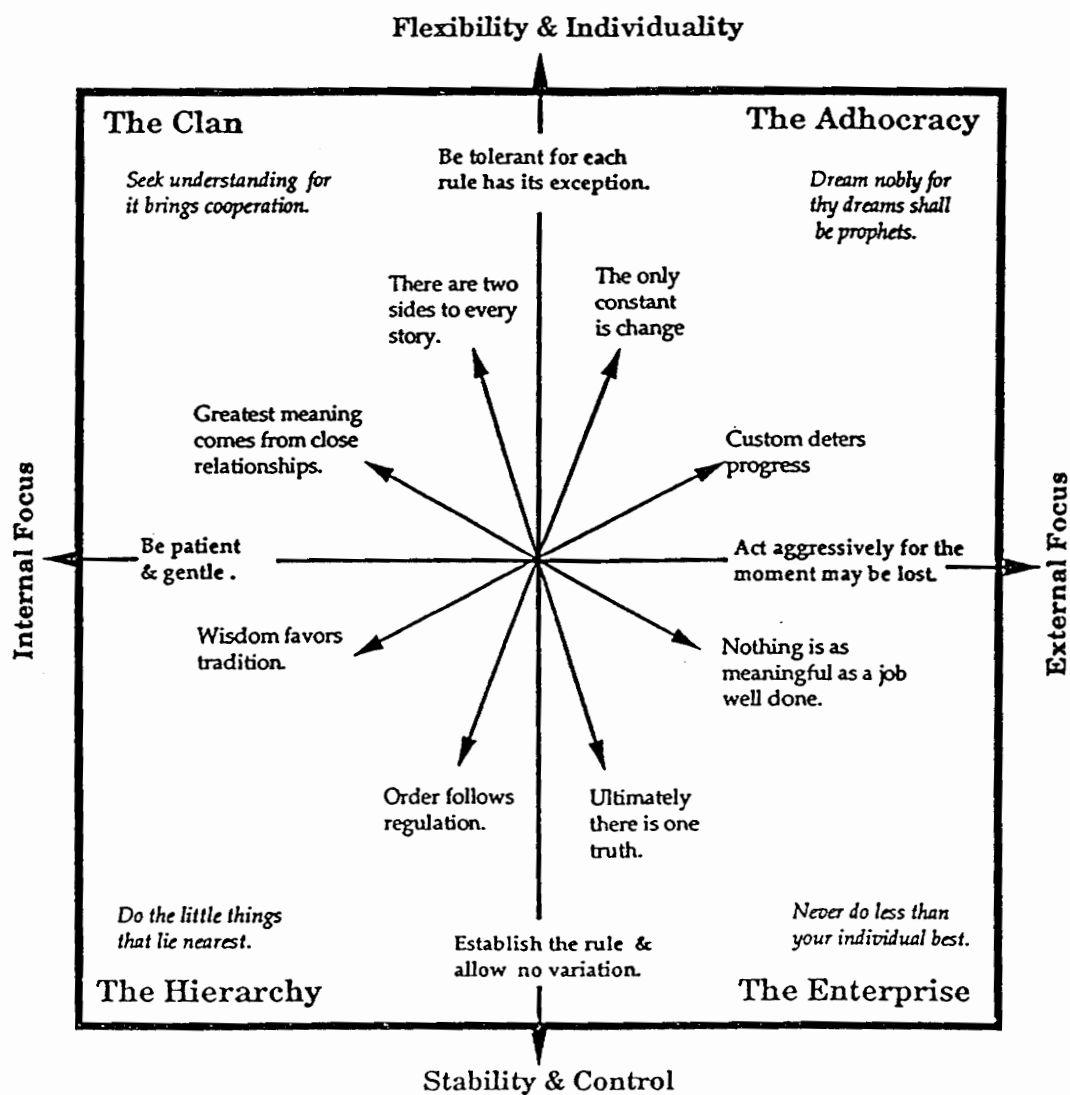
OUTDOOR ACTIVITIES

1. Stretching Exercises
2. Bumper Kwack Exercise
3. All Aboard Exercise
4. Island Hop Exercise
5. Trust Fall Exercise
6. Electric Fence Exercise
7. Trust Walk Exercise
8. Wall Exercise

A Team Debrief Is Conducted At The Completion Of Each Activity Focusing On The Objective And Its Importance In Developing A High Performing Team.

Photo Print Culture Plotting Chart

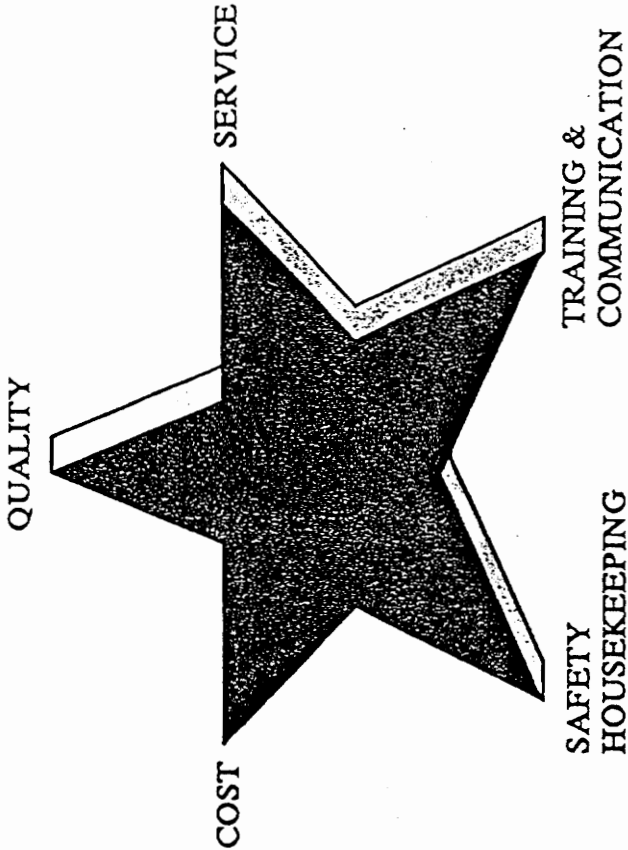




SELF-MANAGED WORK TEAMS FUNCTIONAL STRUCTURE

- A SELF-MANAGED WORK TEAM WILL BE COMPRISED OF EIGHT TO TWENTY VOTING MEMBERS.
- SUPERVISORS ARE A NON-VOTING TEAM MEMBER AND SERVE IN THE CAPACITY OF ADVISOR/COACH.
- THE COACH SERVES AS THE FIRST STEP IN THE ESCALATION PROCESS OF ANY ISSUE WHICH CANNOT BE RESOLVED BY THE TEAM.
- THE ENGINEERS ASSIGNED TO THE AREA SERVE AS A RESOURCE TO THE TEAM. THEY ARE A NON-VOTING MEMBER AND ATTEND MEETINGS ON AN AS NEEDED BASIS.
- EACH SELF-MANAGED WORK TEAM HAS FIVE MATRIX COORDINATORS WHO ARE ELECTED BY THE TEAM AND SERVE AS THE SUBJECT MATTER EXPERTS IN QUALITY, PRODUCTION, COST, SAFETY/HOUSEKEEPING AND EMPLOYEE RELATIONS.
- THESE COORDINATORS MEET DAILY FOR APPROXIMATELY FIFTEEN MINUTES AT THE BEGINNING OF THE SHIFT TO DISCUSS QUALITY PROBLEMS, PRODUCTION, STAFFING, ABSENCES AND VACATIONS.
- THE COORDINATORS WILL MEET MONTHLY WITH THEIR PEERS FROM OTHER SELF-MANAGED WORK TEAMS TO DISCUSS SUCCESSES, EXCHANGE IDEAS, AND INVESTIGATE PROBLEMS.
- THE ENTIRE SELF-MANAGED WORK TEAM WILL MEET WEEKLY/BIWEEKLY TO DISCUSS THE FIVE MATRIX ISSUES AND ANY PROBLEMS ASSOCIATED WITH THE TEAM.

SELF-MANAGING WORK TEAMS



AT&T RICHMOND
SELF-MANAGED WORK TEAMS GUIDELINES

These operating principles were designed to help guide the Self-Managed Work Teams to success. All Self-Managed Team members should operate within the following guidelines:

Actively participate in the decision making process for all items relating to their team mission statement.

All team members should promote an open working environment of mutual support, respect and accountability in which communication is free and informal.

Focus on the needs of the customer.

Promote the five elements of the matrix:

- Quality
- Production
- Safety / Housekeeping
- Cost
- Training & Communication

Base all decisions / ideas which affect the quality and financials of the team on supporting data, i.e. the purchase of new equipment would be supported by a business case.

Each team should create their own method of tracking their results for the five elements of the matrix.

Recognition for specific achievements will be determined by the team and must include all team members.

The following are the types of policies and practices that a SMWT CANNOT alter:

- Salary and wages
- Benefits
- Safety policies and procedures
- Contractual agreements with represented employees
- Other plant-wide policies and practices

** A team can however recommend improvements to any of the above, but must submit supporting data for any changes to the Joint Implementation team for approval prior to implementation*

SELF-MANAGED WORK TEAMS GUIDELINES
(continued)

Teams may utilize upward, lateral and group appraisals to assist in individual and team development.

Self-managed work team members will not be disciplined for failures or errors resulting from risks taken through business decisions agreed to by the team.

IMPLEMENTATION TEAM

COACH

Responsibilities

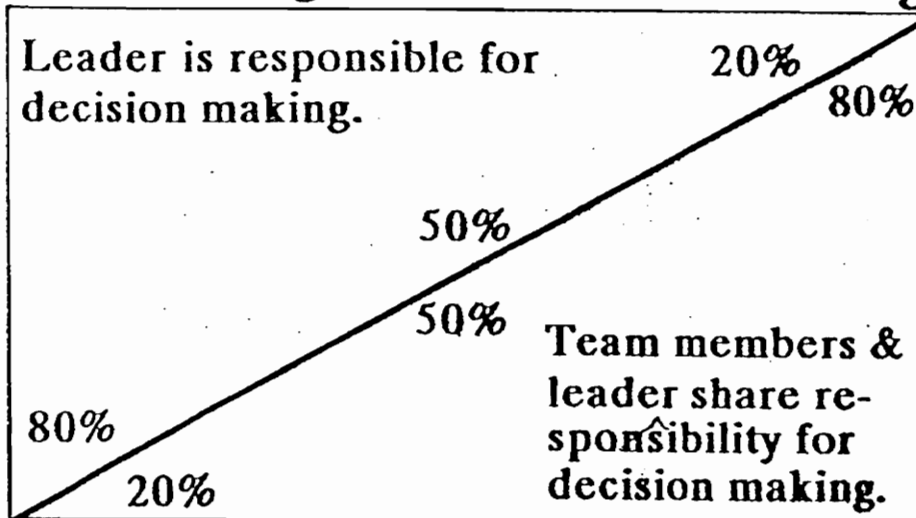
- Counsel the coordinators and team members when roadblocks arise that stifle the team's success.
- Utilize coaching skills to provide constructive feedback to the coordinators and team members.
- Guide the team with a positive manner to the achievement of their goals.
- Facilitate the coordinators and team members in the goal setting process with relation to the five elements of the matrix.
- Administer all discipline and Richmond plant-wide policies and practices.
- Serve as the first step in the escalation process for any issue and be available to provide assistance in the solution of problems.
- Monitor and maintain attendance records and insure proper payment to all team members.
- Facilitate all movement of personnel in and out of the team with the advice of the team members.
- Share possible roadblocks, solutions, and successes with other coaches to aid in the implementation of the process.
- Facilitate the team in evaluating their success as the process evolves.
- Encourage team members in their growth/development and assist in the training process.
- Share issues with the Implementation Team that cannot be resolved among the team and with the assistance of the coach.

ADVISOR (SUPERVISOR) ROLE IN SMWTs

- Encourage participation
- Supportive
- Accessibility
- Flexibility
- Patience
- Be a team member
- Train self and others
- Be a resource
- Involve
- Trustworthy
- Honest

Controlling

Facilitating



Controlling Leader's Role:

- Tell
- Sell
- Direct
- Decide
- Delegate
- Solve problems
- Set goals
- Use authority to get things done

Facilitating Leader's Role:

- Listen
- Ask questions
- Direct group process
- Coach
- Teach
- Build consensus
- Share in goal setting
- Share in decision making
- Empower others to get things done

VITA

ASELA GUNAWARDENA

Born on January 16, 1966 in Colombo, Sri Lanka
Citizenship: Sri Lanka

CAMPUS ADDRESS:

1001 University City Blvd. Apt # B-9
Blacksburg, VA 24060
Tel: (703) 552 8261

WORK ADDRESS:

MICROCON Consultants
13 Roszel Road
Suite A 106
Princeton, NJ 08540
Tel: (609) 452 2228

EDUCATION:

M.S., Industrial and Systems Engineering, May 1993.

Virginia Polytechnic Institute and State University (VPI&SU), Blacksburg, Virginia.

Specialty: *Management Systems Engineering.*

Research: Analyzed systemic problems associated with the new role of supervisors (coaches) of Self-Managing Teams (SMT) at AT&T Microelectronics in Richmond, Virginia. Made recommendations to upper-management, and assisted in developing a training program for the coaches.

Areas of Study: Change Management; Measurement Systems; Continuous Improvement; Management Systems; Total Quality Management (TQM); Economics; Finance; Accounting; Simulation Modeling; and Statistics.

B.S., Electrical Engineering, December 1990.

Magna Cum Laude Honors.

Virginia Polytechnic Institute and State University (VPI&SU), Blacksburg, Virginia.

Specialty: *Computer Engineering.*

Digital and Microprocessor system design.

G. C. E. (Advanced Level), August 1983.

Royal College, Colombo, Sri Lanka.

WORK EXPERIENCE:

Customer Service Engineer: BC Computers, Ltd. (Agents for UNISYS Inc.), Colombo, Sri Lanka.
January - June 1988.

Repaired faulty electronic circuits and performed preventive maintenance on computer systems. Involved in solving computer system malfunctions, customer complaints and problems with hardware.

Electrical Engineering Summer Intern: S&C Electric Company, Chicago, IL. Summer 1990.
Worked with a project engineer in building and testing an electronic circuit which predicts current-zero crossing for a high-voltage, synchronous power switch.

Computer Engineering Lab Aide: Dept. of Electrical Engineering, VPI&SU. Summer 1989 - Fall 1990.
Assisted incoming freshmen in hardware and software problems with their computer systems.
Appointed as Head of the team of students chosen to confront computer problems (Fall 1989 & Fall 1990).

Graduate Teaching Assistant: Dept. of Industrial and Systems Engineering, VPI&SU. Spring 1991 - Fall 1993.

Advisor: Dr. Paul. E. Torgersen, President Corporate Research Center, Dean Emeritus of Engineering.

Course: *Theory of Organization*.

Graded exams, substituted in professor's absence, and administered computer simulation exercise.

HONORS AND ACTIVITIES:

Pratt Fellowship, VPI&SU, January 1992

Dean's List, VPI&SU - all semesters attended.

Golden Key National Honor Society & Phi Kappa Phi Honor Society, Institute of Industrial Engineers.

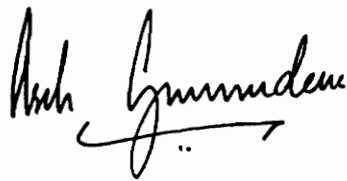
Merit scholarship, University of Colombo, 1986

Captain of Rowing, Royal College, 1983; University of Colombo, 1987

Colors for Rowing, Royal College, 1981 - 1983; University of Colombo, 1985 - 1987

Games Prefect, Royal College, 1984

Senior Prefect, Royal College, 1983

A handwritten signature in black ink, appearing to read "Ash Gammaden". The signature is fluid and cursive, with a long horizontal stroke at the end.