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**LEADERSHIP TRAINING AND EVALUATION IN A CHEMICAL PLANT
MAINTENANCE DEPARTMENT: A CASE STUDY**

By

**Paul Vincent Williams
BME., University of Louisville, 1968**

**A Thesis
Submitted to the Faculty of the
University of Louisville
Speed Scientific School
as Partial Fulfillment of the Requirements
for the Professional Degree**

MASTER OF ENGINEERING MANAGEMENT

Department of Industrial Engineering

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MAINTENANCE DEPARTMENT: A CASE STUDY**

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ABSTRACT

This thesis proposes the use of a leadership assessment instrument to determine the pre-treatment status of a test group, providing leadership training as the treatment over a one year period, following up with the same leadership assessment instrument to determine the post-treatment status of the group and comparing the differences.

After the treatment was defined and presented to the test group, they decided to participate and proceed with the project. The assessment instrument, called a Leader Action Profile (LAP) from the Blanchard Training and Development Company, was given to the group in May of 1997 before any treatment started. At the same time, the group was also asked to describe their job. The leadership training started immediately following the surveys and continued over an eight month period. One year after the initial assessment, the follow-up assessment was conducted. The results from the pre- and the post-treatment, combined with the Myers-Briggs Type Indicator (MBTI) results and the survey questions all indicated a change in the leadership behaviors.

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NOMENCLATURE

F = Myers-Briggs Feeling function

LAP = Blanchard Training & Development Leader Assessment Profile

LBAlI = Blanchard Training & Development Leader Behavior Analysis

N = Myers Briggs Intuitive function

S = Myers-Briggs Sensing function

SLII = Blanchard Training & Development Situational Leadership

T = Myers-Briggs Thinking function

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I. INTRODUCTION

Leadership Training

Leadership training is targeted at various levels within an organization and is offered by many institutions, consultants and companies. The primary purpose of the training is to provide the skills necessary for effective leadership. The challenge existing for any leader is to determine the appropriateness of the various choices for their particular level in their organization. Furthermore, any leader also has a basic question they must answer after the training regarding the long-term effect on their leadership characteristics.

In the demanding environment of today's organizations for customer service and economic value, the field of Industrial Engineering has become an important resource. It has driven organizations to produce evidence showing the impact of training on the "bottom line". Included in the field of Industrial Engineering is a part involving the interpersonal skills around which leadership characteristics are developed. It is this area, where an improvement in the leadership skills is having a positive effect on the productivity, which has become a focus for the business world.

Training leaders today has become just as much of a challenge as the most complex production problem. For most manufacturing environments and chemical processes there are computer programs which develop models that will provide information for the decision making process. In most manufacturing environments there is a high concentration of technical people who become the resource for leadership. The training received by the technical people usually does not include the interpersonal aspect of working with people. Nor does it include any leadership training. Unfortunately, in

today's environment, where the principles of Adult Learning are followed, the new leaders are not given the tools for leadership until they are thrust into the environment of leadership. Productivity during the transition period between a newly attained leadership position and receiving any training may be impacted depending upon the group in question.

Problem Statement

Most leaders that are introduced into the lowest level leadership positions at the Dow Corning, Carrollton Site, have had no formal leadership training. These leaders were generally selected on their ability to effectively manage their work, their operations, and their organization utilizing their conceptual and technical skills in their decisional and informational roles. In their newly appointed positions, the test group in question acknowledged their lack of expertise in managing a group utilizing their people skills in the interpersonal role of leadership.

Scope of the Thesis

This thesis will;

- describe the pre-treatment status of a group of front line Crew Leaders in a Chemical Plant Maintenance Department by the use of a leadership assessment instrument and a set of survey questions,
- describe the leadership training given to the Crew Leaders over a one year period,

- **and describe the post-treatment status of the leadership characteristics of the Crew Leaders by use of a survey question and the same leadership assessment instrument.**

II. TRAINING PROPOSAL

The following training proposal was presented to the Reliability Shop leaders at the Dow Corning Corporation located in Carrollton, Kentucky during the spring of 1997. This training was estimated to take place once per week with 3 to 4 hour sessions over a 3 to 4 month period of time.

The highlights of the training proposal was as follows:

- **Developing a common Vision**
- **Learn why a Paradigm shift is important**
- **Understand the Fundamentals of Management**
- **Learn about leading teams**
- **Learn about Situational Leadership II**
- **Participation in Team Building centered around the issues of change, communication, problem-solving, and leadership**
- **Evaluation of the training to include measurement**

The measurement:

Prior to starting any training it was recommended to give each participant the LAP (Leader Action Profile), an instrument that is designed to provide feedback before training and then provide follow-up feedback 3 to 6 months later. (Blanchard, Zigarmi, and Zigarmi 1997) The pre-survey was to determine the effectiveness and comfort of the participants during their use of the four leadership styles of Situational Leadership II as well as to establish a base line prior to the initial training. The Post-survey was proposed to be conducted 3 to 6 months after completing the SLII training to determine if the

participants used the skills they learned and which styles to reinforce in any follow-up sessions. This pre- and post-training survey from Blanchard Training & Development includes very detailed feedback. This instrument is an evaluation scheme which examines the changes in behaviors.(Blanchard 1997) The questions asked on the pre and post survey are shown in the appendix.

List of Modules:

Content	# of modules
Power of Vision & Paradigm Principles	1
Paradigm Pioneers & Fundamentals of Management	1
Situational Leadership II	4 to 6
Team Building	4
Next Step	1
Total	11 to 13

Specifics of each module:

The first module proposed was the “Power of Vision” video by Joel Barker which shows the Vision essentials as follows: (Barker and Kennedy 1993)

- Leader initiated
- Shared and supported by all
- Comprehensive and detailed - how, when, why, what - everyone must see their part
- Positive and inspiring
 1. must have reach
 2. stretch of skills
 3. worth the effort
 4. better to err on the side of greatness

The video helps the participants understand the powerful role vision can play in their organization and life. It also helps the participants understand how a positive vision of the future is crucial to the success of any individual or organization.

Following the Vision video it was proposed to show the “Paradigm Principles” that would help participants understand the dynamics of a paradigm shift and how to take action in the organization. (Barker 1993) The video would also show the participants that when they practiced paradigm principles, the organization would learn when to look for new paradigms, who will bring them, how to gain the advantages of a paradigm shift, how to recognize change and how to start talking about paradigms.

The two videos above were designed to take one session. The next session was proposed to start with a third video “Paradigm Pioneers” which expanded on the previous video and was intended to prepare them for making the most of the training as it applied to their environment. (Barker and Christensen 1993)

Following the videos above, it was proposed to present the information from the Fundamentals of Management. (Donnelly, Gibson and Ivancevich 1995) The syllabus for this session can be found in Appendix I, Table X. Since the crew leaders had never been exposed to, or involved with, a leadership role, the author included the material from a class in the University of Louisville Speed Scientific School Masters of Engineering program. The focus of this part of the training was the three tasks facing a manager today. The three tasks are; 1) managing work and organizations, 2) managing people, and 3) managing production and operations. The emphasis was placed on managing people which involved motivation, behaviors, leadership, communication and development of the organization.

The proposal also included information about leading work teams that contained a four-step model to ensure employee participation and increase productivity. (Rees, F., 1991) The model consisted of leading with a clear purpose, empowering to participate, aiming for consensus, and directing the process.

Next, it was proposed to begin the series of Situational Leadership II modules that are highlighted as follows: (Blanchard, Zigarmi, and Zigarmi 1994)

Leadership of the future will help participants:

- consider the role of the leader in rapidly changing organizations
- appreciate the need for flexibility and adaptability in developing people and managing diversity and change
- develop personal learning goals for improving their leadership skills

Beliefs and Building Blocks: Participants will learn the definition of leadership, the three skills of a Situational Leader and the four functions of leadership. The objectives of this module are:

- Develop a common vocabulary for leadership
- Understand the differences between successful and effective leadership
- Examine the core beliefs and values underlying the Situational Leadership II Model
- Identify the three skills of a Situational Leader - Diagnosis, Flexibility and Partnership for Performance/Contracting for Leadership Style
- Define the four functions of leadership - Goal Setting, Feedback, Problem Solving and Recognition
- Learn why there is *no best leadership style*
- Understand the goals of a Situational Leader

Diagnosis: one of the three skills of a Situational Leader. Helps leaders choose the most appropriate leadership style to use in a given situation to develop their employees' skills and motivation and to achieve organizational goals. The objectives of this module will help participants to:

- **Learn which situational variables to consider when choosing an appropriate leadership style**
- **Define development level as a measure of a person's competence and commitment of a specific goal or task**
- **Identify the characteristics and needs of employees at the D1, D2, D3, and D4 levels of development (see page 23 for a definition of each)**
- **Develop skills in diagnosing development level**

Flexibility: another skill of a Situational Leader - the ability to use a variety of leadership styles comfortably. Participants will learn what effective leaders do in all four leadership styles (Directing, Coaching, Supporting and Delegating) to develop the competence and commitment of the people they work with. This module will help participants to:

- **Identify Directive and Supportive Behaviors**
- **Describe the four leadership styles - Directing, Coaching, Supporting and Delegating**
- **Describe differences between the four leadership styles**
- **Learn what a leader does in all four styles**
- **Learn how flexible they are and which of the four styles they are most comfortable using**
- **Identify the skills they need to adapt their leadership style from one situation to another**

Matching Leadership Style to Development Level: The participants will learn how to match their leadership style to their employees' needs for direction and support on different goals and tasks. They will also learn about the negative impacts of oversupervision and undersupervision. The objectives in this module will help participants:

- **Match leadership style to development level**
- **Understand the negative impact of oversupervision and undersupervision on employees' performance and morale**
- **Learn how effective they are in diagnosing development level and choosing the appropriate leadership style**
- **Practice diagnosing development level**

Implementing and Applying Situational Leadership II: The third skill of a Situational Leader, **Partnering for Performance** is a strategy for opening up communication and working with employees to develop their competence and commitment. Participants will learn how to involve employees in setting goals and to reach agreements with them about which leadership style should be used to help them achieve those goals. The objectives of this module will help participants:

- Practice diagnosing development level and choosing the appropriate leadership style
- Learn how to partner with their employees to develop their competence and commitment
- Learn how to redirect poor performance by opening up communication
- Learn how to use Situational Leadership II on a day-to-day basis with their employees
- Practice using the four leadership styles

Initiating and Implementing Organizational Change: Participants will learn how to diagnose their employees' concerns with a proposed change and how to match their leadership style to each stage of concern so that the concerns are lowered or resolved. The objective in this module will help participants:

- Diagnose employees' predictable concerns with change
- Identify the six stages of concern
- Learn how to support momentum for, lower resistance to and ease the stress of change
- Learn to choose the most appropriate leadership style - Focusing, Engaging, Inspiring, or Integrating - for each stage of concern
- Understand what a leader does in each of the four styles to respond to each stage of concern
- Develop an action plan for implementing a change in their organization

Up to this point the training proposal focused on the leader interacting with their group. The training that followed from this point focused on the participants interacting with each other, as you would expect in a cross-functional team. The participants had

previously completed a personality survey called the Myers-Briggs Type Indicator (MBTI) which gave them information about themselves to help them understand others. (Briggs-Myers and McCaully 1989) The proposed training that follows was based on the MBTI. The modules are described as follows:

The objectives for the first module on team development were:

- Learn how the participants' way of organizing information can have an impact on communication
- Improve the group's listening skills
- Increase the cross-functional team effectiveness

The objectives of the second were:

- Examining organizational culture
- Understanding team behavior in the midst of change & reorganization
- Managing change

The objectives of the third module were:

- Learn how participants lead and like to be led
- Establishing roles & responsibilities

The objectives of the final module were: (Hirsh 1992)

- Examining and improving group problem solving
- Understanding the impact of individual stress

In conclusion, it was proposed to conduct a final session for the group to determine their next step to follow up on this training. The suggestion was to conduct a needs & expectations exercise with the group between members and the leader that could provide the bridge for the next step. Some time after this point, it was recommended to complete of the LAP follow-up. The pre- and post-assessment surveys were used to provide feedback to each participant. These would be used as a measurement of training

effectiveness, as well as for identifying areas of excellence and areas of improvement for each participant.

III. DESCRIPTION OF DUTIES FOR THE TEST GROUP

In order to get a sense of the job each crew leader performs, the author drafted 2 questions to ask each participant. The questions asked them to describe their daily tasks and how they see their job changing in the future. When comparing their answers to points covered in the Leader Action Profile it can be seen that there were similar areas. The intent, of course, was to examine these areas for any change after the treatment was given to the group. The responses to these questions can be found in the Appendix, TABLE X.

IV. THE TREATMENT

During the summer of 1997 the plan for the crew leader training progressed as follows:

- The first training session was completed on June 6, 1997.
- The remaining sessions were re-scheduled for September 1997.
- The Leadership Action Profile was completed and the feedback was presented to each crew leader during a general explanation session on September 23, 1997.

The first training session involved the showing of the Joel Barker videotape “The Power of Vision”, the presentation of the Situational Leadership II overview, and the showing of the Joel Barker videotape “Paradigm Pioneers”.

“The Power of Vision” helped viewers to understand how a powerful, positive vision of the future can empower individuals and organizations. After viewing this tape the discussion between the crew leaders involved the plant vision and the Reliability vision with respect to the following benefits:

- Gave insight to build their organizational vision.
- Clarified their concept of vision - what it is and what it isn't.
- Illustrated how thinking about the future gives meaning to the present.
- Demonstrated the positive power a meaningful vision can have within an organization.
- Showed everyone they all have the ability to shape their own future.

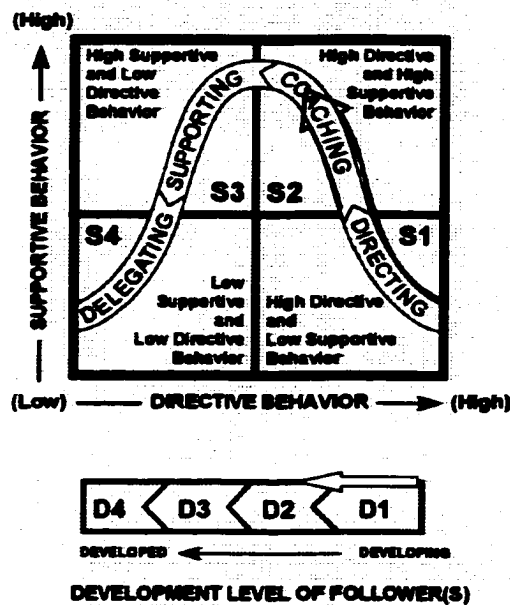
FIGURE 1 shows the two dimensions of leadership style; directive behavior and supportive behavior. Directive behavior is the telling and showing people what to do,

when to do it, and providing frequent feedback on results. Supportive behavior is praising, listening, encouraging, and involving others in decision making. The four leadership styles are as follows:

- 1) S1 - Directing - high directive and low supportive behavior.
- 2) S2 - Coaching - high directive and high supportive behavior.
- 3) S3 - Supporting - high supportive and low directive behavior.
- 4) S4 - Delegating - low supportive and low directive behavior.

FIGURE 1. SITUATIONAL LEADERSHIP II MODEL

Situational Leadership II



(Blanchard 1994)

In a similar fashion there are also four development levels for employees that have to do with competence and commitment. Competence is the knowledge and skills the individuals brings to a specific goal or task. Commitment is the individual's motivation and confidence on a particular goal or task. The four developmental levels are:

- 1) **D1 - low competence and high commitment.**
- 2) **D2 - low to some competence and low commitment.**
- 3) **D3 - moderate to high competence and variable commitment.**
- 4) **D4 - high competence and high commitment.**

The discussion that followed after this presentation dealt with the issue of matching the leadership style with the employees developmental needs. (Blanchard, Zigarmi, and Zigarmi 1994)

The second video shown was “Paradigm Pioneers” which presented four principles to help understand the dynamics of a paradigm shift and how to take action in the organization. (Barker and Christensen 1993) By practicing paradigm principles the crew leaders will learn when to look for new paradigms, who will bring them, how to gain the advantages of a paradigm shift, how to recognize change and how to start talking about paradigms.

The Fundamentals of Management were presented toward the beginning of the training. The syllabus is shown for this module in the Appendix, TABLE IX. Also included in this module was information about leading work teams

The Team Building Modules centered around the Myers-Briggs Type Indicator involved communication, change, leadership and problem solving. (Hirsh 1992) A Myers-Briggs Type Distribution chart shows where the participants prefer to operate and was displayed in the training. At this point it was proposed for the group to begin to examine their strengths and weaknesses so they could begin to develop a strategy for improvement based on their differences.

The Myers-Briggs Type Indicator (MBTI) is an instrument that describes one's orientation to the world, how they take in information, how they make decisions and their lifestyle. (Briggs-Myers and McCaulley 1989) The workshop that each crew leader attended prior to the proposed project involved a one-day training session where the various functions were demonstrated through several exercises on problem solving, communication and leadership. The exercises were structured to help the individuals learn about themselves so they could better understand others.

V. PARTICIPANTS COMMENTS AT END OF TREATMENT REGARDING CHANGES

Participant #1: I talk to the shop members more in one-on-one sessions. I communicate more and I find myself making communication checks more frequently as I try to improve my listening skills. I find myself being more confident when I give feedback on performance.

Participant #4: This is my first time for leadership training. There were no big changes and the work is steady.

Participant #5: During the past year I have had several additional training sessions with my group. One session was a follow-up to previous Steven Covey training while the other session was an overview of the Situational Leadership principles for the shop members. One person was promoted to a higher position and two new people were added to the shop membership. I have taken training material home to study and apply to my shop members. I have become more assertive in my leadership.

Participant #6 (leader of the crew leaders): The Analyzer Shop Crew leader was replaced. The previous leader was placed in a specialty role. A 360° feedback process was introduced to the mechanics Performance Improvement Process (PIP). A new Planning, Estimating & Scheduling (PES) group was created and has recently started planning and scheduling most of the mechanical shop work. Due to the focus on cost reduction the employee and contractor backfills are strongly challenged. The headcount in the Instrument shop and the Electrical shop have both increased. The headcount in the Analyzer shop and the Mechanical shop have both decreased. The decrease has occurred through natural attrition (retirements). The Reliability Engineering Principles have been

established as the tools for improving reliability and reducing costs. Due to the high turnover in Engineering there is a lack of technical support from experienced Engineers. An equipment data base was added to the maintenance group and the new company software (SAP) module on Preventative Maintenance (PM) was added which gave some shop technicians the opportunity to place their own history files into the database.

Participant #7: I have one new person in my shop and have the opportunity to try S1 leadership. The training has helped me to be more flexible and let go. I find myself not taking on their mistakes personally and becoming more assertive in my leadership.

Participant #8: There are less people in my shop and there are several new people in the shop. I am doing more hands-on work than I have done previously.

VI. ANALYSIS OF THE DATA

Leader Behavior Analysis II

The Leader Behavior Analysis II (LBAIL) Self, Form A data for the crew leaders is displayed in TABLE I. This assessment was completed during the treatment as a part of the training to give them a better understanding of the principles of Situational Leadership, especially as it related to their particular style. This particular assessment gives an individual information about their perceptions of their own leadership style. There are 20 situations where each participant is asked to choose the leadership style they would use in each of those situations. The number in parenthesis indicates the number of times that the participant selected that particular leadership style. The choices are recorded under one of three possible style types (primary, secondary, and developing). (NOTE: Participant #9 did not participate in the post assessment).

TABLE I. LEADERSHIP BEHAVIOR ANALYSIS II

Self, Form A - Perceptions of Leadership Style

Participant	Primary Style	Secondary Style	Developing Style	Flexibility Score	Effectiveness Score
#1	S3 (14)	none	S4,S2,S1(3,3,0)	12	44
#2	S3 (12)	S4 (6)	S2,S1 (1,1)	14	55
#3	S3 (10)	S2 (6)	S4,S1 (2,1)	18	55
#4	S2 (9)	S3,S4(6,5)	S1 (0)	20	64
#5	S3 (10)	S4 (7)	S2,S1 (2,1)	16	51
#6	S3 (11)	S4 (7)	S2,S1 (2,0)	19	54
#7	S3 (9)	S4 (6)	S2,S1 (3,2)	22	46
#8	S3 (14)	S2 (4)	S4,S1 (2,0)	17	54
#9	S3 (7)	S4,S1(6,4)	S2 (3)	24	61

Misuse of Style Diagnosis

Participant	S1	S2	S3	S4
#1	0	2	8	0
#2	0	0	5	2
#3	0	2	4	0
#4	0	1	1	2
#5	0	0	5	2
#6	0	0	6	2
#7	0	2	5	2
#8	0	1	5	1
#9	1	0	3	1

A primary style is one which an individual is most comfortable with and tends to use the most. Most people see S2 and S3 as their primary style. The first column indicates this with S3 being the primary style for 89% of the participants and S2 leadership being the primary style for the remaining participant.

A secondary style is a back-up style and is often used when the primary style is not appropriate or with an individual that requires a different approach. Although it is considered to be rare for styles S1 and S4 to be seen as secondary styles, 67% of the participants see theirs as a S4 style of leadership. It could be possible that the environment supports that particular style at Dow Corning.

A developing style is one where the participant has selected a particular style very few times and needs to be utilized more often where appropriate. This column of data indicates style(s) that may need developing when a particular style was selected less than 4 times (as shown in parentheses). This may be attributed to the technical environment existing at this plant where new employees are expected to have some competence and have high commitment. Although this does not match any of the descriptions of the four

developmental levels, it is often perceived as a higher developmental level and consequently leads to a mismatched leadership style. The treatment was designed to improve the process of diagnosing the development level and matching it with the appropriate leadership style.

The flexibility score is the fourth column of data on the top chart. A perfect score for flexibility is 30. A score of 18 or above is considered to be a high flexibility score, which means that the respondent perceives that he or she would manage different situations differently. The data indicates that 56% of the participants have a high flexibility score.

The last column on the top chart indicates the effectiveness score which is a numerical representation of the diagnostic skills. The closer the score is to 80, the more the leader tends to match his or her choice of a leadership style to the development level of the employee, which is the goal of Situational Leadership II. The average style effectiveness score is 50 (± 4). Anything above the average indicates that the leader varies his or her leadership style in response to the needs of the situation. The data also shows that 44% of the participants have an above-average effectiveness score. A score below the average indicates that the leader's diagnostic skills - his or her ability to determine a person's competence and commitment - could be improved. One participant has an effectiveness score below the average. Overall 89% of the participants show an average or above effectiveness score.

In order to improve the effectiveness scores, the lower chart, Misuse of Style Diagnosis, in the LBAIL data shows a participant the number of times that particular style was chosen as a poor or fair choice. A pattern of four or more in any one leadership style

means a participant may not be taking into account the development level of their employee they are leading when choosing a leadership style. In other words, it indicates a repetitive misdiagnosis of development level or misuse of the style. This is an example of a strength, carried to its extreme, can become a weakness. Another way to explain it would be to consider an individual that has a favorite leadership style which they try to use for all situations. This leader would be inappropriately using his or her own favorite leadership style and mismatching with the employee requiring a different leadership style.

Myers-Briggs Type Distribution

The Myers-Briggs Type Distribution chart in Table 2 indicates where each participant prefers to be when interfacing with others. The four functions, Sensing, Thinking, iNtuition and Feeling, are shown in the order of preference for each type as they proceed with the problem solving process. Each type has a favorite function, an auxiliary function, a tertiary function and a least preferred function.

TABLE II. MYERS-BRIGGS TYPE DISTRIBUTION AND FUNCTIONS

TYPE DISTRIBUTION & PREFERRED ORDER OF FUNCTIONS			
ISTJ	ISFJ	INFJ	INTJ
1. Sensing 2. Thinking 3. Feeling 4. Intuition	1. Sensing 2. Feeling 3. Thinking 4. Intuition	1. Intuition 2. Feeling 3. Thinking 4. Sensing	1. Intuition 2. Thinking 3. Feeling 4. Sensing
ISTP	ISFP	INFP	INTP
1. Thinking 2. Sensing 3. Intuition 4. Feeling	1. Feeling 2. Sensing 3. Intuition 4. Thinking	1. Feeling 2. Intuition 3. Sensing 4. Thinking	1. Thinking 2. Intuition 3. Sensing 4. Feeling
ESTP	ESFP	ENFP	ENTP
1. Sensing 2. Thinking 3. Feeling 4. Intuition	1. Sensing 2. Feeling 3. Thinking 4. Intuition	1. Intuition 2. Feeling 3. Thinking 4. Sensing	1. Intuition 2. Thinking 3. Feeling 4. Sensing
ESTJ	ESFJ	ENFJ	ENTJ
1. Thinking 2. Sensing 3. Intuition 4. Feeling	1. Feeling 2. Sensing 3. Intuition 4. Thinking	1. Feeling 2. Intuition 3. Sensing 4. Thinking	1. Thinking 2. Intuition 3. Sensing 4. Feeling

There are two ways of gathering data, by a Sensing function and by an intuitive function. A Sensing function uses the five senses (sight, sound, smell, taste, and touch) to take in information in consideration of the here and the now (the present). An intuitive function uses the creative side of the brain to consider possibilities and look at the future. Likewise there are two ways of making decisions. A Thinking function and a Feeling function. A Thinking function is one where decisions are made by a rational analysis. A

**Feeling function is one where decisions are made based on the subjective values of others.
(Hammer et al. 1996)**

The MBTI team building modules were valuable since they were able to function as a tool to help prevent problems and to help solve problems during the team process. (Barger Kirby 1995) The self understanding, and the understanding of others, seemed to have a positive effect on the process and the group as a team, and when each managed their subordinates.

Out of every hour in problem solving, people tend to spend 47% of the time in their favorite function (number 1), 30% of the time in their auxiliary function (number 2), 17% of the time in their tertiary function (number 3) and 6% of the time in their least preferred function (number 4). (Hirsh 1992) The two middle letters of each type show the favorite and auxiliary functions on this chart. Notice that the INFP (participant 5) is the only one with Feeling as the dominant (number 1) function. Furthermore, no other participant has Feeling as a dominant OR auxiliary function. Feeling is a function involving people and their buy-in to any leadership effort. Without it, a leader is not very effective or at worst, doomed for failure. Looking back at the LBAlI data, participant #9 (INTP) has the highest flexibility score and an above average effectiveness score. It appears that this person has learned to develop their least favorite function of Feeling to support their dominant and auxiliary functions of iNtuition and Thinking.

Training Participation

TABLE III shows the training sessions attended by each participant. Participant #1 attended all of the sessions while participant #'s 2 and 9 attended 6 and 8 sessions respectively.

TABLE III. TRAINING PARTICIPATION

Sessions attended by each participant	#1	#2	#3	#4	#5	#6	#7	#8
Power of Vision Video	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Paradigm Principles	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Paradigm Pioneers								
Fundamentals of Management	Yes	No	Yes	Yes	Yes	Yes	Yes	No
Leadership of the Future	Yes	No	Yes	Yes	Yes	Yes	Yes	No
Beliefs and Building Blocks	Yes	No	No	No	Yes	Yes	No	No
Diagnosis	Yes	No	No	No	Yes	Yes	No	No
Flexibility	Yes	No	Yes	Yes	No	Yes	No	Yes
Matching Leadership Style to Development Level	Yes	No	Yes	Yes	Yes	Yes	No	Yes
Implementing and Applying Situational Leadership II	Yes	Yes	Yes	No	No	Yes	Yes	Yes
Initiating and Implementing Organizational Change	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
MBTI & Communication	Yes	No	Yes	Yes	Yes	Yes	Yes	No
MBTI & Change	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
MBTI & Leadership	Yes	No	Yes	Yes	Yes	Yes	Yes	No
MBTI & Problem Solving								
One-on-One Meetings	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sessions attended	14	6	12	11	12	12	10	8

LAP Questions

The LAP Questions are shown in the appendix, TABLE VIII, and provide a better understanding of the 16 areas of the assessment instrument. It can be seen that each area involves 3 questions.

LAP Surveys

The LAP Surveys are completed by each participant as they see themselves. In addition, they also handed out surveys for their employees to complete. TABLE IV shows the number of surveys completed by employees who are considered as "other".

TABLE IV. LEADERSHIP ACTION PROFILE SURVEYS COMPLETED

(Self survey completed by Crew Leaders - Other survey completed by employees)

Participant number	Pre-treatment			Post-treatment		
	Self	Other	Total	Self	Other	Total
1	1	7	8	1	8	9
2	1	7	8	1	7	8
3	1	5	6	1	4	5
4	1	7	8	1	5	6
5	1	5	6	1	7	8
6	1	5	6	1	6	7
7	1	7	8	1	7	8
8	1	6	7	1	6	7

LAP Scores

The LAP Scores shown in TABLE V are a summary of those provided to each participant. A change for each behavior can be identified for each participant.

For the Directive Behavior of Priorities, where the data was statistically significant, participants 3 & 8 showed a decrease while participants 1,2,4,5,6 & 7 showed an increase.

For the Directive Behavior of Goal Setting, where the data was slightly statistically significant, participants 2,3 & 8 showed a decrease while participants 1,4,5,6 & 7 showed an increase.

For the Supportive Behavior of Listening, where the data was not statistically significant, the mean decreased between the pre and the post treatment and was attributed to participants 1,3,and 8 with only a slight amount due to participant 6.

TABLE V. LAP SCORES
(for the Crew Leaders expressed as percentile ratings compared to a National average)

Pre-Treatment 5/97																
Participant	Directive Behavior							Supportive Behavior							Satisfaction	
	Goal Setting	Action Plans	Roles	Show How	Evaluating	Time-lines	Priority	Listen	Praise	Info Org.	Info Self	Prob. Solv.	Ask For Input	Rationale	with boss	with org.
#1	30	42	57	64	54	29	46	63	63	52	61	58	58	52	51	72
#2	64	58	41	63	59	44	62	59	59	59	51	69	53	47	56	50
#3	11	44	54	22	52	29	45	51	50	29	68	48	57	29	33	50
#4	43	58	52	61	57	37	59	53	55	50	52	61	60	49	52	65
#5	31	28	41	48	36	36	25	49	46	50	42	44	43	35	42	52
#6	29	22	35	17	41	29	40	53	60	36	48	36	50	36	48	48
#7	17	42	27	35	53	52	53	51	51	55	59	34	68	14	21	19
#8	22	54	40	59	38	39	44	42	52	32	51	56	56	34	45	39
Avg.	30.875	43.5	43.37	46.12	48.75	36.87	46.75	52.62	54.5	45.37	54	50.75	55.62	37	43.5	45.5
Post-Treatment 6/98																
Participant	Directive Behavior							Supportive Behavior							Satisfaction	
	Goal Setting	Action Plans	Roles	Show How	Evaluating	Time-lines	Priority	Listen	Praise	Info Org.	Info Self	Prob. Solv.	Ask For Input	Rationale	with boss	with org.
#1	42	48	57	70	53	34	63	51	63	42	67	57	51	53	42	71
#2	39	72	68	69	75	61	74	70	79	73	66	73	73	77	66	59
#3	2	9	10	54	6	8	20	10	17	3	6	17	18	5	2	37
#4	46	67	68	75	64	43	66	69	66	66	59	73	71	57	66	72
#5	56	59	57	61	50	45	60	59	67	56	62	68	70	46	51	58
#6	46	44	57	41	55	37	46	51	68	51	61	56	65	46	46	44
#7	48	61	58	64	59	56	68	69	74	66	68	62	77	62	56	56
#8	19	31	45	48	41	50	36	18	32	25	44	48	25	18	27	25
Avg.	37.25	48.87	52.5	60.25	50.37	41.75	54.125	49.62	58.25	47.75	54.12	56.75	56.25	45.5	44.5	48.66

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LAP data t-test

TABLE VI was provided by Blanchard Training & Development. The data was a result of the way each participant and employee answered the survey questions. The data represents the employees only without including the leader's data. The sample size of 49 and 50 included only the "other" pre- and post-treatment surveys as shown in TABLE IV. There was an increase in the means of each behavior with the exception of "Listening" where the pre-treatment mean was 12.980 and the post-treatment mean was 12.540. Of the 16 areas under consideration "priorities" was the only one that was statistically significant with a 95% confidence level (pre-treatment mean of 11.633, $p=.0554$ and a post-treatment mean of 12.320, $p=.0557$). Another area, Goal Setting, was slightly significant (pre-treatment mean of 13.265, $p=.0765$, and a post treatment of 14.260, $p=.0769$).

TABLE VI. LEADER ACTION PROFILE T-TEST DATA

Dow Corning, Carrollton Site Crewleader LAP data - t-test										
	N	Mean	Std. Dev.	Std. Error	Min.	Max.	Variances	T	Deg. of F	Prob> T
Goal Setting										
Pre-treatment	49	13.265	2.540	0.363	5	18	unequal	-1.7906	95.2	0.0765
Post-treatment	50	14.260	2.975	0.421	3	18	equal	-1.7877	97.0	0.0769
Action plan										
Pre-treatment	49	12.143	2.550	0.364	6	18	unequal	-0.8458	92.4	0.3999
Post-treatment	50	12.640	3.262	0.461	3	18	equal	-0.8437	97.0	0.4009
Roles										
Pre-treatment	49	11.102	1.896	0.271	7	13	unequal	-1.2093	93.6	0.2296
Post-treatment	50	11.620	2.346	0.332	3	15	equal	-1.2067	97.0	0.2305
Showing how										
Pre-treatment	49	13.592	2.637	0.377	7	18	unequal	-1.0116	97.0	0.3124
Post-treatment	50	14.140	2.733	0.387	4	18	equal	-1.0152	97.0	0.3125
Evaluation										
Pre-treatment	49	14.020	2.521	0.360	7	18	unequal	-0.6408	94.4	0.5232
Post-treatment	50	14.380	3.043	0.430	3	18	equal	-0.6396	97.0	0.5239
Timelines										
Pre-treatment	49	12.388	1.913	0.273	7	18	unequal	-0.8345	94.8	0.4061
Post-treatment	50	12.740	2.275	0.322	5	16	equal	-0.8330	97.0	0.4069
Priorities										
Pre-treatment	49	11.633	1.680	0.240	8	15	unequal	-1.9389	96.5	0.0554
Post-treatment	50	12.320	1.846	0.261	5	15	equal	-1.9370	97.0	0.0557
Listening										
Pre-treatment	49	12.980	1.331	0.190	9	15	unequal	1.2420	82.9	0.2178
Post-treatment	50	12.540	2.111	0.299	5	15	equal	1.2365	97.0	0.2193

Praising										
Pre-treatment	49	12.225	1.723	0.246	7	15	unequal	-0.3797	96.9	0.7050
Post-treatment	50	12.360	1.827	0.258	6	15	equal	-0.3795	97.0	0.7051
Info Sharing										
Pre-treatment	49	13.959	2.441	0.349	8	18	unequal	-0.2948	86.8	0.7689
Post-treatment	50	14.140	3.569	0.505	3	18	equal	-0.2937	97.0	0.7696
Sharing about self										
Pre-treatment	49	13.388	2.532	0.362	5	18	unequal	-0.4004	92.6	0.6898
Post-treatment	50	13.620	3.206	0.453	3	18	equal	-0.3995	97.0	0.6904
Problem Solving										
Pre-treatment	49	13.776	2.786	0.398	6	18	unequal	-0.6054	97.0	0.5463
Post-treatment	50	14.120	2.876	0.407	4	18	equal	-0.6052	97.0	0.5465
Asking for input										
Pre-treatment	49	14.265	2.405	0.344	8	18	unequal	-0.4028	89.3	0.6880
Post-treatment	50	14.500	3.327	0.471	4	18	equal	-0.4015	97.0	0.6889
Rationale										
Pre-treatment	49	12.898	2.860	0.409	3	18	unequal	-1.0973	94.1	0.2753
Post-treatment	50	13.600	3.482	0.492	4	18	equal	-1.0951	97.0	0.2762
Satisfaction w/Boss										
Pre-treatment	49	18.571	3.634	0.519	6	24	unequal	-0.0827	93.1	0.9343
Post-treatment	50	18.640	4.570	0.646	6	24	equal	-0.0825	97.0	0.9344
Satisfaction w/Organization										
Pre-treatment	49	19.755	3.449	0.493	6	24	unequal	-1.0035	96.7	0.3181
Post-treatment	50	20.440	3.339	0.472	10	24	equal	-1.0039	97.0	0.3197
TOTAL										
Pre-treatment	49	219.95	28.013	4.002	131	267	unequal	-0.8878	88.4	0.3770
Post-treatment	50	226.06	39.498	5.586	78	276	equal	-0.8849	97.0	0.3784

LAP Score Changes

TABLE VII shows the percent change and the direction of the change for Directive and Supportive Behaviors. Participant #3 had the largest change for both behaviors in the negative direction. Participants #5, #6, and #7 have the largest directive behavior changes while participant #7 has the largest changes in both behaviors. A graphical representation of these changes can be found in the conclusion section.

TABLE VII. LAP SCORE CHANGES

(EXPRESSED IN % FOR EACH INDIVIDUAL)

Directive Behaviors	#1	#2	#3	#4	#5	#6	#7	#8
Goal Setting	40	-39	-81.8	7	80.6	58.6	182.4	-13.6
Action Plans	14.3	24.1	-79.5	15.5	110.7	100	45.2	-42.6
Roles	0	65.8	-81.5	30.8	39	62.9	114.8	12.5
Show How	9.4	9.5	145.5	23	27.1	141.2	82.9	-18.6
Evaluating	-1.9	27.1	-88.5	12.3	38.9	34.1	11.3	7.9
Timelines	20.7	38.6	-72.4	16.2	25	27.6	7.7	28.2
Priorities	37	17.8	-55.6	11.9	140	15	28.3	-18.2
Total Directive Behavior	119.5	143.9	-313.8	116.7	461.3	439.4	472.6	-44.4
Supportive Behaviors								
Listen	-19	18.6	-80.4	30.2	20.4	-3.8	35.3	-33.3
Praise	0	33.9	-66	20	45.7	13.3	45.1	-62.5
Info about Org.	-19.2	23.7	-89.7	32	12	41.7	20	-21.9
Info about Self	-9.8	29.4	-91.2	13.5	47.6	27.1	15.3	-13.7
Problem Solving	-1.7	5.8	-64.6	19.7	54.5	55.6	82.4	-14.3
Asking for Input	-12	37.7	-68.4	18.3	43	30	13.2	-55.4
Rationale	1.9	63.8	-82.8	16.3	31.4	27.8	342.8	-47
Total Supportive Behavior	-59.8	212.9	-543.1	150	254.6	191.7	554.1	-248.1
Satisfaction								
with boss	-17.6	17.9	-93.9	26.9	21.4	-4.2	166.7	-40
with organization	-1.4	18	-26	10.8	11.5	-8.3	194.7	-35.9

VII. CONCLUSIONS

The Leader Assessment Profile used in this study was appropriate for the treatment, however, significant limitations exist because of the small sample size. Examination of the answers to the two pre treatment questions located in the appendix will reveal the self perception of each participant's leadership characteristics. With information from the appendix and in various tables throughout this thesis, there is evidence that a change occurred in the leadership behaviors. The Crew Leaders mentioned issues of an interpersonal nature in their verbal responses and indicated that the Myers-Briggs Type Indicator training broadened their thinking which in turn had some influence on their leadership style changes that took place. The MBTI modules provided them with information about themselves which in turn helped them to understand the behaviors of others. During the training module on the Fundamentals of Management, the Crew Leaders revealed that this was the first time they had been given leadership training. They further went on to explain at a later date that this module was one of the most enlightening since it explained the need to attend to the people aspect of leadership. The answers to the follow up questions regarding their leadership changes are located in chapter V which reflect this heightened awareness.

FIGURE 2. BEHAVIOR CHANGES

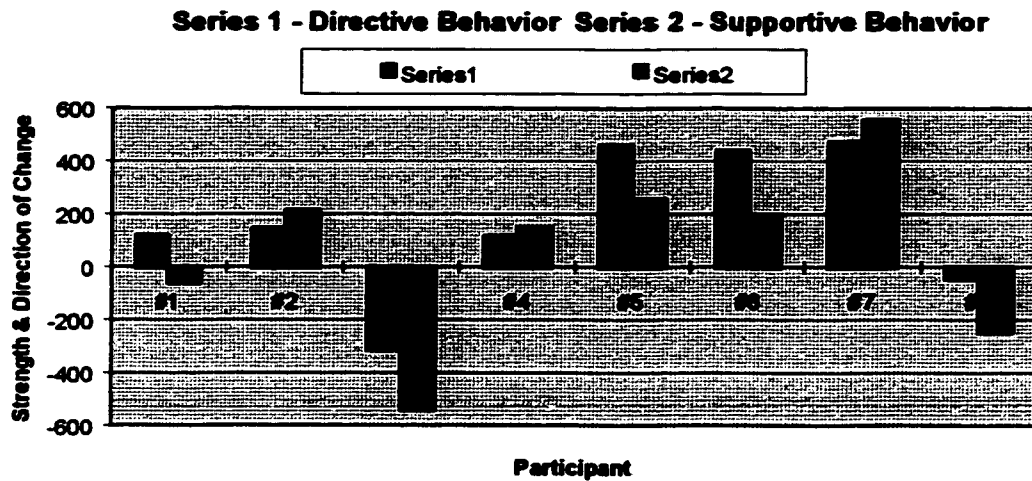


FIGURE 2 is a graphical representation of the leadership behavior changes that occurred between May of 1997 and June of 1998. The data for constructing this chart comes from TABLE VII. For the Directive Behavior of Priorities (the only area where the t-test was statistically significant), participants 3 & 8 showed a decrease while participants 1,2,4,5,6 & 7 showed an increase. Participant #1 indicated confidence in giving feedback in the post treatment as indicated in participant's comments in chapter V. This is congruent with the chart above where the positive results are indicated in directive behavior, particularly in goal setting (as seen in TABLE V). Participant #4 indicated no change after the training and the chart above also indicates the same. Participant #5 showed a marked improvement in the directive behaviors of goal setting, action planning, evaluating and showing how. This participant also showed consistent improvement in their supportive behaviors. Participant #6 showed improvement more so in the directive behaviors than in the supportive behaviors. This may have been attributed to all the changes mentioned in the participant's comments in chapter V. Participant #7 showed the

most improvement in both the supportive and the directive behaviors. This participant's comments at the end of the treatment are congruent with FIGURE 2 where the statement was made about trying to be flexible, allowing employees to make mistakes and trying to develop the S1 leadership style. It is important to note this participant's leadership style from the Leader Behavior Analysis in Table 5 indicates that S1 and S2 leadership styles are developing styles. The Leader Action Profile post treatment data indicates a definite improvement in directive behaviors which means that the attempt on this participant's part to effectively use S1 and S2 leadership were successful. Participant #8 commented at the end of the treatment that there was more hands-on work plus several new people. This situation may account for the participant's decrease in supportive behaviors. In other words, less time for the leadership needs of the more experienced people that require supportive leadership behaviors.

There were several things that happened during the summer of 1997 that could have impacted the outcome of the final results of the LAP surveys. The author's primary job changed from an organizational development position to a training position for 80% of his time and team training for 20% of his time. This situation lasted until January 1998 at which time his duties returned to 100% organizational development. During June of 1997 a company wide six month moratorium was issued on all courses that did not have a direct impact on certain major programs. The interpersonal skills types of courses that he taught were placed on hold. The courses were the Facilitation Skills Workshop and the Myers-Briggs Type Indicator Workshop. The Dow Corning Corporate office issued a hiring freeze and budget constraints during July 1997. This situation remains in effect even today and is expected to last through 1999.

VIII. RECOMMENDATIONS

When first time Crew Leaders are selected in the future, it is strongly recommended that the training identified in this case study be started prior to their starting the leadership role. The purpose of this training is to give the new leader the tools they need, when they need them, to create the best possible environment for success. The initial training is recommended to include the principles of Situational Leadership and the Leader Behavior Analysis survey to give the Crew Leader information about their strongest leadership style and the styles they may need to improve. At the same time it is recommended that the Crew Leader complete the Myers-Briggs type indicator survey. This will provide valuable interpersonal information to help the Crew Leader understand themselves and others better and could lead to improved leadership effectiveness. At the latest, the training should begin no later than the start of their new role. During the six month to one year time frame it is recommended to complete the Leader Action Profile to provide information about their perceived supportive and directive leadership behaviors. Approximately one year after the initial LAP, it is recommended to follow up with another LAP assessment to provide the Crew Leader with information on changes that took place during that time period and identify areas for improvement.

It is further recommended that this same training and assessment be used for other situations in the work environment that involve the leader and follower role. An example would be the mentoring program where the mentor would be the leader and the person being mentored would be the follower. The use of the Myers-Briggs Type Indicator would be appropriate to aid in the selection process for the match of the two. The Situational Leadership II information would aid in the process that occurs between the

two. Other areas for the use of this training and evaluation could include any leader coming into a new leadership environment. Information about a leader's personality involving how they take in information and make decisions helps any group to communicate with their new leader. It helps with the next aspect of leadership which involves the determination of the employee's developmental level and the leader's partnership to provide the appropriate leadership style. In all cases, the evaluation portion of the training is of utmost importance to provide the leader with information about their leadership style, past improvements and future opportunities for improvement.

IX. EXTENTION TO RESEARCH

For future studies of leadership training for the new employee beyond what has been described in this thesis, it is recommended to build upon the existing skills of the new leader. This will require assessments to identify individual needs, the organizational needs and the developmental level of the followers (which in turn will identify their needs). It will be extremely important for organizations to address all three of the gaps in these three areas to position themselves for future competition. The instruments used for the assessment should determine the trust level within groups. In order to build upon the recommendations coming from this type of assessment, one must consider the validity and the reliability of the instrument. These factors are important for the assessment selection process to make sure that the information obtained is the situation as it actually exists. Trust and integrity are difficult attributes to assess since they depend upon the openness of the individual during the completion of the assessment instrument. Projects of this nature are best done under the guidance of someone knowledgeable of these issues such as a Psychologist. The key to building any group into a high performing team of leaders comes from trust and integrity. When a group begins to attend to those needs then other foundational needs, such as communication, can be developed more effectively. This is the beginning of synergy, the joint efforts of the group being more than the sum of all individual efforts. It is within this level of operation that a group becomes highly productive and thereby becomes more competitive. In addition to the recommendations for the assessment instrument on trust and integrity, it is recommended that the pre- and post-treatment training include such teachings about synergy.

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APPENDIX

TABLE VIII. LAP QUESTIONS

Directive Behavior

Goal Setting:

- My boss discusses the goals he or she would like to see me accomplish.
- The goals my boss and I agree on are fair and achievable.
- My boss and I agree on goals to be accomplished for a work period.

Developing Action Plans:

- My boss is helpful in planning out the tasks that need to be done to accomplish my goals.
- My boss and I discuss the action steps needed to accomplish my work goals.
- My boss requires that action plans be drafted for work accomplishment.

Clarifying Roles:

- My boss is clear about what my job is.
- My boss has clearly explained my exact job responsibilities and tasks to me.
- My boss often asks me to do something and later asks me to do the opposite.

Showing How:

- When I need help, my boss shows me how to do a certain task.
- My boss and I have a clear understanding about how to accomplish the outcomes we have agreed on.
- My boss is clear about how to accomplish outcomes.

Evaluating:

- My boss is clear about the measures he or she will use to evaluate my performance.
- My boss compares my work to clear performance standards that I think are fair.
- My boss and I agree on what represents good performance on my job.

Establishing Time Lines:

- The time lines set by my boss for me to accomplish my work are reasonable and fair.
- My boss expresses displeasure if I do not meet the time lines set for completing my work.
- My boss sets clear time lines for me to accomplish my work.

Setting Priorities:

- My job priorities and the priorities my boss has for me are similar.
- My boss lets me know my job priorities so I know what is more important and what is less important.
- My boss and I have different ideas on what I need to do to accomplish my job.

Supportive Behavior

Listening:

- My boss is a good listener.
- My boss often seems preoccupied and sometimes does not listen to others.
- My boss takes the time to listen to my questions or problems.

Praising:

- The only time I get feedback on my performance is when I have done a good job.
- My boss tells me when he or she thinks I've done a good job.
- My boss praises people for good performance.

Information Sharing/Organization

- My boss keeps me informed about the things that are relevant to my performance.
- My boss keeps me well informed about what is happening in the organization.
- My boss encourages the free flow of ideas and opinions.

Information Sharing/Self

- My boss shares information about himself or herself.
- My boss shares information about personal experiences to build rapport with me.
- My boss frequently tells me what he or she is feeling about certain work issues.

Problem Solving:

- My boss helps me examine the possible consequences of alternative solutions to problems.
- My boss helps me see problems before they get too big.
- My boss is skillful in helping me explore alternatives to work problems.

Asking for Input:

- My boss encourages people to speak up when they disagree with a decision.
- My boss ask me for input on various work issues.
- My boss includes me in most decisions that affect my work.

Providing Rationale:

- My boss is skillful in explaining the "big picture," which adds meaning to certain work decisions.
- My boss explains why he or she has taken certain courses of action.
- My boss tells me why he or she feels a particular work issue must be handled in a certain way.

Satisfaction

Satisfaction with Boss:

- My boss is very skillful at managing people.
- My boss has earned my trust and confidence.
- My boss handles the administrative parts of his or her job extremely well.
- My boss knows the technical parts of his or her job extremely well.

Satisfaction with Organization:

- I intend to continue to work for this organization as long as I can.
- I fell good about the way this company treats its employees.
- I like working for this organization.
- I feel satisfied about working for this organization.

TABLE IX. AGENDA FOR FUNDAMENTALS OF MANAGEMENT

The **Fundamentals of Management** module included the following: (Donnelly, Gibson, and Ivancevich 1995)

- **The three tasks of leaders**
 - 1) **Managing work and organizations**
 - 2) **Managing production and operations**
 - 3) **Managing people**
- **The leader and the Organization**
- **The three skills of leaders**
 - Conceptual
 - Human
 - Technical
- **The three roles of leaders**
 - Decisional roles
 - Informational roles
 - Interpersonal roles

TABLE X. DESCRIPTION OF DUTIES FOR THE TEST GROUP

Describe your job (what tasks you do each day)

Respondent 1:

1. Coordinate work with maintenance coordinator and other Dow Corning shops.
2. Keep jobs moving and running smoothly.
3. Schedule work for the men and give them support when needed.
4. Work out issues with the men when they come up.
5. Listen to the men's ideas and have an open mind.
6. Talk about safety issues with the men.
7. Communicate with my boss.
8. Talk to the men about their future at DC so I can help them meet their goals.

Respondent 2

1. Administrative issues - progressions, feedback to production, attend and schedule meetings, etc.
2. Address issues with crew leaders, work, personnel.
3. Check work backlog and what has been put in (W.O.) during off hours.
4. Check new work orders and go to area and produce drawing if needed.
5. Get parts for jobs scheduled.
6. Try to schedule regular work.
7. Pull up P.M.'s and schedule for various trades.

Respondent

1. Check PROFs first thing and pass on any information the shop guys may need to know. Field questions from ACM technicians and try to clear away any barriers they may have. Be watchful that on a day to day basis the shop direction is consistent with the goals of the plant. Evaluate Job performance and quality of service we provide to the plant. Coordinate team efforts within the shop and promote smooth team behavior.

Respondent 4

1. Oversee the scheduling of people in the instrument shop.
2. Maintain my technical ability and act as a technician at least ½ of the time.
3. I try to balance the efforts and recognition people receive from others to enhance the shop and plant relations. Establishing communications to plant in general is very important - growing & will be my job.

Respondent 5

1. Work as an Instrument Technician under Tom Chambers unless he is off. When I am temporarily in charge on Tom's off days I don't have much to do in terms of supervision, since shop members take care of areas and problems that come up themselves. I have okayed going home early, assigning overtime and occasionally decided what jobs can and can't be done and when.

Respondent 6

1. Attempt to keep up with OV (can be very time consuming almost information overload).

2. **Verbal communication (visibility) primarily within my department and averaging 1 hour per day.**
 3. **Attend meetings which is not part of the time listed above.**
 4. **Work on ideas for corrective action or improvement - some of this is silent storming on my own.**
 5. **Personnel related coaching and problem solving.**
6. **Respondent 7**
7. **Work with maintenance coordinators scheduling pump and compressor jobs and trouble-shooting problems.**
 8. **Assign jobs each morning to pump crew and myself.**
 9. **Do performance reviews on HVAC, pump crew, relief valve crew and machine shop. I also keep track of the crew's vacation, sick time, time cards.**
 10. **Withdraw pump and compressor parts from stock and deal with any problems that pertain to this.**
 11. **Participate on SQIT teams (Gould, Mueller, Viking)**
 12. **Go to a lot of meetings.**

Respondent 8:

1. **Help coordinate work for the plant.**
2. **Make sure the manpower is in the right place at the right time.**
3. **Do personal evaluation on job performance.**

Respondent 9:

1. **Work assignments, evaluations, assist with problems, scheduling, conduct shop meetings, conduct safety meetings, decisions and guidance of day to day operations of the shop.**

How do you see your job changing for the future?

Respondent 1:

1. **More computer work and more meetings.**

Respondent 2:

1. **Getting more from supervision.**
2. **More planning and scheduling.**

Respondent 3:

1. **I think this position will be coordinating more between ACM and area. We will need to begin focusing on education of production and what we do and try to overcome the idea that what we do is magic. We also need to try to understand production's needs better and how our skills can help production. I believe, and hope, the "supervision" part of this job gives way to the "leadership" part of the job.**

Respondent 4:

1. **It will be overseeing a group of people who are a part of another group much of their day.**
2. **The technician part will remain much the same.**
3. **Establishing a teaching/learning society that is not based on selling obviously would be a very good thing.**

Respondent 5:

1. **If I become a team leader, I know this will expand greatly, encompassing the everyday work details to scheduling future work. Also dealing with workers problems and needs would be a big change. I would need to steer the shop into changing technology and workers mind sets.**

Respondent 6:

1. **As pure 360 degree feedback takes root I see less time required for personnel related corrective action and more time for looking ahead to 5 year planning, etc.**
2. **More external networking within the corporation.**
3. **More time for coaching and helping to instill vision and sense of direction for others.**

Respondent 7:

1. **More planning, scheduling, trouble-shooting, training.**

Respondent 8:

1. **More paperwork and more meetings.**

Respondent 9:

1. **Not much change, however I hope to have shop members assume more responsibilities.**

VITA

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