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The Team Concept in Today's Work Environment: People Are Our Greatest Asset

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THE TEAM CONCEPT IN TODAY'S WORK ENVIRONMENT: PEOPLE ARE OUR GREATEST ASSET

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Abstract

This thesis will focus on the study of The Team Concept in today's work environment. People are the greatest asset any company possesses and how they are utilized directly affects the success and failure of that organization. The purpose of this study is to gain an understanding of what is required to implement a team approach.

Both knowledge and skills associated with the subject must be fully attained before any results can be achieved. This study provides knowledge around the team concept and provides some tools necessary for implementation. Knowledge is what any student can learn about a subject, but the skills come with the experience of dealing with the people. Both must be mastered and understood. Remember everyone wants to be connected with a company that aspires to be the best -- that wants to be a leader in everything it does -- and is willing to embrace the high standards necessary to consistently

achieve high goals.

In this study various practical examples and research findings have been assembled from the automobile manufacturing industry. The history of the successes and failures of the team environment concept demonstrates that automobile manufacturing is the most difficult industry to implement it in, due to the multiple age groups and educational backgrounds of employees.

In the author's mind, the effective team leader is the one who takes the time to understand what he or she is really asking each member of the team to do. The one who has actually been in that employee's position or a similar position. The one who treats each employee as a colleague rather than a subordinate. The one who is willing to get his or her own hands dirty if that's what it takes to achieve the kinds of change needed for the team.

People will come and go, but the values that bind an organization or institution must be permanent. They can never change, and these kinds of values are more than ethical principles -- they are good business -- and they are rules of living.

It won't be easy, but we cannot afford to revert to old ways whenever change seems difficult. We cannot fall back on elaborate charts and words to explain away shortcomings or cover up the severity of new challenges. That would be suicidal. What we need are deeds, not words. To build that kind of motivation in your team, you have to have respect and credibility of the team. Respect and credibility are also achieved through deeds, not words.

In the end, the truest measure of leadership is when the entire team steps back and looks at what it has accomplished; just as you can now look back at what you have accomplished, and they all say to themselves, "We did it together."

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Chapter I

INTRODUCTION

The economic downturn and the international competition that hit U.S. Industries in the late 1970s and early 1980s caused both union and management to realize that a more cooperative relationship would be advantageous to both sides. A short period of labor/management committees existed during World War II, but most of these committees died after the war (Lawler 52). Traditionally, union-management relationships in the United States have been adverse. This type of relationship has represented a way to allow employees to influence such areas as working conditions, discipline, job structures, and pay. This does not, however, allow the employee to gain power, but it inhibits their opportunity to influence areas such as work methods, business strategy, capital investment, and planning decisions.

In the early 1970s, two important events occurred that made labor/management projects a reality in the

American work force. Until this time, it was just more of an academic concept. First, the Japanese automobile manufacturers were producing a higher quality product at a competitive price, causing U.S. automobile manufacturers to change their traditional ways of doing business. The Japanese were successfully taking away market share from the big three, primarily General Motors and largely in the small car segment of the industry. Second, General Motors and the United Automobile Workers of America (UAW) signed a contract that called for cooperative quality of work life, better known as the team concept (Zemke 185).

The team concept is not only applicable to business but to sports as well. For example, in Japan competition is traditionally individual, as seen in Sumo Wrestling, Swordsmanship, and Judo. In fact, in Japan, they do not compete in these activities, but rather seek the way and study it devotedly (Hamel 136). This approach has its analogy in the work arena, where the art of the individual craftsman is highly valued.

The foundation for the team concept was an experiment in late 1940 by Taichi Ohno. To improve on

mass production techniques, Ohno grouped workers into teams with a leader rather than the traditional supervisor. The team was given responsibility to perform certain work and was free to decide how to best accomplish it. This was in sharp contrast to the mass production techniques of the day that required single individuals to perform specific tasks defined by an industrial engineer. The team was also expected to document and improve the work methods it used and was responsible for the quality of its work (Womack 241). The result of Ohno's experiment was an increase in production and a higher level of quality. This success resulted in the team concept becoming a cornerstone of the Toyota Production System.

Such successes were not being seen in Detroit. For example, filmmaker Michael Moore blamed Flint's troubles on corporate greed and insensitivity in his satirical documentary "Roger and Me". In fact GM --like so many other troubled giant corporations -- was a victim of its own prodigious bulk. While competitors started using highly efficient platform teams and lean

production techniques to develop stylish new products and slash costs, GM could not shift fast enough to keep up.

During the 1980s a program was established that called for starting joint union-management projects around the United States throughout General Motors by the Institute for Social Research at the University of Michigan. These programs were designed to improve all aspects of the team concept (Ozley 78). The UAW and the Communication Workers of America also became heavily involved in team concept initiatives, which spread to virtually every major union in the United States. General Motors, Ford, Xerox, AT&T, most steel companies, and most other major corporations with unions have become active in team concept activities. The U.S. Department of Labor has established a bureau to support and encourage team concept projects and lists over a hundred cooperative union-management projects (Ingle 232).

Understanding the team concept from the human factor perspective may be easy. Moreover, even putting basic structures in place for the team concept, such as

choosing the team leader, building the team meeting area, etcetera, may face little resistance, depending on where the organization is directed. However, practicing the key empowerment principles may prove to be a barrier for some, since this requires tenacious, consistent, and well planned strategy (Gilman 165).

Guy Briggs, Vice President, General Motors, Truck Group stated in an address to the top 100 people in GM that, "The simple creation of teams will have a positive effect on the outcome of our automobile manufacturing systems" (Speech April 1996). The collective effort of the group pays off not only in the enhancement of all individual tasks, but also in making more effective the "hand off" of work from one operator to another. Because of the many operations involved in the manufacture of complex products, this concept is important to the overall effectiveness and success of not only the automobile manufacturing, but all companies. Traditional mass production techniques, however, have neglected this hand off and concentrated solely on individual work elements performed by single

operators (Hamel 322).

Educational programs are now being introduced to students both young and old preparing them to become a valuable asset to any corporation, no matter what the job level, working within the team concept. As John Smale, Chairman of the Board, Proctor and Gamble, stated in a speech to executives at General Motors, "Knowledge is what any student can learn about a subject, but the skill comes with experience of dealing with people. Both must be mastered and understood" (Speech Nov 7, 1996). An example of this is the kindergarteners gleefully working in a classroom in the Goodrich School District near Flint, Michigan. They may look like they are just making hamburgers, but actually they are learning basic differences between mass and lean-production techniques.

In another class a few miles away, fourth graders are dividing into teams, building "products" out of legos and comparing "push" (mass production) vs. "pull" (lean) production systems. With the "push" system, they build products as fast as they can and wind up with lots of inventory (Howard 6). Although it might sound like a

stretch, this educational pilot program is part of team manufacturing. Team manufacturing is seen as an ambitious but ill-defined and often misused buzzword aimed at making big, slow moving operations faster on their feet. Students are enabled to respond faster to change and continue to improve after they have wrung out all the possible benefits available (Deming 30).

The new pilot program with all its hamburgers, Legos, and computers looks like great fun, but the intent is serious. In the past two decades, the Flint area has been devastated by the loss of tens of thousands of good paying manufacturing jobs at GM - the area's key employer. GM suffered a catastrophic slide in productivity and market share.

"Adaptability" is another key word, adds Randall W. Miller, a Partner at Deloitte and Touche, and Director of Automotive Industry Consulting. Miller says being able to reconfigure teams for new tasks as customer requirements change is the key to staying competitive. According to Harvey Fruehauf, Professor of Corporate strategy at the University of Michigan, "The team

approach is a product development which requires a commitment from all functional disciplines, clearly defined goals and roles, team members that possess the necessary expertise and collaborative techniques and a highly skilled team leader" (Fruehauf 101).

Flaws in today's manufacturing systems are apparent everywhere. An example is a plumber going into a dealership to order a specific work truck for his business (a custom order), not knowing he is in for a nasty surprise. He is told that it will take an average of four to six weeks and maybe longer. Meanwhile, lots of good, ready-to-go vehicles sit on the dealership lot, because they are not the right color, or do not have the necessary combination of options people want. No matter how efficient manufacturing operations are, working furiously to build products nobody wants just does not make sense. It is a concept any kindergartener can understand, yet it represents a sea-change in the automotive business that in many cases is still stuck on the idea of "economies of scale" and using incentives to get rid of unwanted inventory.

Jennifer Howard, a Professor at the Harvard

Business School, recently stated in the May 1996 Quality Digest that, "In the agility paradigm, leveraging our human resources is the keystone." Agility is based on using science and engineering to leverage the impact of a person's decision -- making capabilities on the success of the enterprise. This represents a major shift from our previous focus of using science and engineering to leverage the musculature, physical skills and dexterity of the person (Howard 23).

Statement of Purpose

In the introductory portion of this review, various determinants relating to people working as a team were cited. It is the purpose of the study to investigate both causes of and road blocks that occur when implementing the team concept in a manufacturing environment. General Motors, the world's largest producer of manufacturing products, will be the focus of the study.

Chapter II

LITERATURE REVIEW

As previously stated, the economic downturn and the international competition that hit U.S. industries in late 1970s and early 1980s caused both union and management to realize that a more cooperative relationship would be advantageous to both sides (Peters 86). The establishment of teams and quality circle (synonyms for employee involvement) programs were the result of both union and management agreeing that a definite need existed for improving relationships. This review will provide a brief history of employee involvement programs (the team concept) and will focus on the history of their implementation among many companies who have achieved success, but not without a defined approach to implementation. Attention will be given to Fortune 500 companies who have been successful with such implementation.

The following is an example from Dr. Deming's book "Out of the Crisis" on such implementation. Prior to an

athletic event, art fair, or "bake off," all participants are made aware of the "rules" or parameters for the competition. The rules may explain the responsibilities of particular players, the criteria for judging, or the amount of time allowed. Understanding the structure of the competition allows those participating to plan their strategy.

This same principle holds true for the team concept in the work place. Prior to becoming involved in the team process, the team members should have a clear understanding of the specific goals and objectives (or requirements/specifications) their product must meet. Also, the team's roles and responsibilities, decision-making authority and "life" must be "spelled out." Individual team members must be aware of their specific "deliverables" to the team and the product development process (181).

Historical Perspective

Tom Peters suggests that although the Japanese

take credit for inventing the team concept and have spent the last twenty years perfecting it, the original idea came from Dr. W. Edwards Deming, a statistician for the U.S. government. Deming was sent to Japan by General Douglas MacArthur to improve that nation's image of producing inferior products. Deming's fourteen (14) point management philosophy developed as a result of this visit and became known throughout that country as a guideline for organizational development (Zytec 69).

One of the dignitaries Deming met asserted that "American workers are illiterate and lazy." The author of this quote was Yoshio Sakurauchi, speaker of the Japanese House of Representatives in 1982. This was not a statement of fact, but only his opinion, since American workers are clearly among the most productive in the world, based on labor productivity statistics, although the differences between the United States, Germany, and Japan are minor (Naumann 5).

One reason American workers are so productive is due in part from their having a solid education. A solid education has allowed for firms such as the Disney company to establish the team concept. The team

concept at Disney was first implemented in the 1940s. Disney would meet weekly with the children and spouses of his employees just to sit and converse with them. Disney commented: "I get good, useful ideas from children and mothers" (Schaaf 361). Disney always encouraged worker involvement. In one instance, he called his workers together and asked for input for improving a new attraction. All employees liked it with the exception of one janitor. Disney inquired why he was dissatisfied. The worker informed him that the conditions were not realistic. Again, Disney inquired how he could know that the attraction was not realistic. The worker replied, "I was born there and lived there for twenty years. I should know something about the place." With this worker's suggestions, the attraction was immediately modified. Using continual worker participation, Disney Corporation has been successful in maintaining an exceptionally high level of quality and attaining near perfection in its products (Schaaf 280).

A Need For Change

A demanding need for change existed in the 1980s

with the country's economic downturn: escalating costs of production and foreign competition penetrating the domestic markets were causing the U.S. to face serious economic problems. The economic future of our country depended on finding a solution to this major problem. U.S. manufactured products supplied ninety-eight percent of demand in the domestic market and more than one fourth of all the industrial nations in the 1960s. This huge market share has been steadily deteriorating since then (Nauman 82).

The largest portion of jobs lost were in the automobile business. According to Business Week the decline in the U.S. position in the 1970s alone amounts to some $125 billion in lost production and a loss of at least two million industrial jobs (59).

The root cause of production problems facing business in the 1980s was not competition from Japan. Neither was the problem caused by laziness and illiteracy as Mr. Sakurauchi previously stated; however, he is not far off the mark. The fundamental cause of the 1980s economic malaise was found within each

employee to some degree (Naumann 33). It was found in U.S. schools, in U.S. government, and in U.S. businesses. The root cause of problems that were found facing organizations during that time was the pervasive complacency of workers and managers (Barsky 81).

General Electric CEO Jack Welch stated in comments to GE employees that complacency leads to mediocrity. Complacency, among American workers as individuals or organizations, is guaranteed to lead to mediocrity. If American workers do not change their attitudes as rapidly as other countries, as rapidly as U.S. competitors, as rapidly as the environment, American workers will simply fall further and further behind, and not improving would have led directly to economic decline not only for U.S. workers individually, but for businesses and for the U.S. economy as well (37). Xerox, one of the 1989 Malcom Baldrige winners, perfected its work processes and then overcame complacency. Without question, Xerox created an industry, and owned the market in which all products were compared (Zemke 103).

During the 1980s, corporate bankruptcies, mergers,

acquisitions, and declining profits were the rewards bestowed upon firms for their complacency, says Jack Welch at General Electric, who is now a leader in the team concept throughout his global corporation (R8 13).

Another example of the team concept approach came from President Clinton in July 1993. He held a work-place summit in Chicago for 200 companies that involved workers in daily decision making. According to the U.S. Secretary of Labor, Robert B. Reich, "There is no way to create a competitive (international) advantage other than through people. Firms are discovering slowly that highly motivated and skilled employees are the key to long-term profitability" (Clinton Speech).

Another leader in the team movement is General Mills. Its plant in Lodi, California, is a showcase for the company's employee involvement programs. Called shared control, this program eliminated three levels of management, created workers teams, and gave production and quality responsibilities to the workers. Implementing these programs is a complex process because many established practices may be affected. For

example, it may affect redesigning reward systems and altering structures of power and authority to changing how information is shared among departments (Barsky 165).

To add support for people coming together as teams, research is now being conducted at the Center for Effective Organizations. This shows the majority of the Fortune 1000 companies that practice employee involvement, find that support by top management is the most important condition for success (Barsky 101). This is hardly surprising. Meaningful change in hierarchical organizations is nearly impossible to achieve without the support of top management. More surprising is that offering monetary rewards to employees for their participation does not help to make these programs work.

Stephen R. Covey author of the book 7 Habits of Highly Effective People explains that fairness, trustworthiness, kindness, patience, gentleness, knowledge, discipline, consistency, and integrity are all principles based on which any group of people can effectively function as teams. The world religions also teach these qualities and have for centuries (Spirit

70).

Working with People

World-class companies stand for something worthwhile and communicate this vision to their employees with passion. General Electric's vision of a customer-focused organization is conveyed by their "workout" program. This approach, based on a passion for quality and emphasis of trust and confidence among employees, has achieved radical breakthroughs in products and services. At Southwest Airlines the vision is productivity, fun, and working together as a family (Peters 375).

Creating a passionate and motivated work force starts with having a vision for the organization. Sam Walton, the late CEO of Wal-Mart, shared a vision that everyone across the United States understood and that was apparent in at each store. By doing so he created a company without bureaucracy, where people are curious, open, cooperative and always breaking down barriers (Spirit 36).

Visions should be simple, communicated at every

opportunity, and personally conveyed by top management. Companies should create a human resources vision statement embodying the ideal spirit of their organization. All human resource efforts must start with a vision: an idea that communicates commitment and enthusiasm, but conviction must be framed in real programs to offer practical guidance for employees. In many organizations, management treats employees as unvalued and unintelligent. The employees in turn, convey the identical message to the customer. It is the rare employee who can rise above the effects of such poor management (Schaaf 437).

One example where management is changing its philosophy is in Springfield, Missouri. Jack Stack, founder, of the Springfield Remanufacturing Company, knows full well the importance of people working together as a team. In 1983, Stack was General Manager of International Harvester's Engine Rebuilding Plant in Springfield. International Harvester, then in dire straits, announced it would close the plant and lay off its 119 workers.

Stack and twelve other managers scraped together

seed money and passed the hat to all 199 workers, raising $100,000. They then convinced a bank to lend them $8.9 million to buy the plant. With a disastrous debt-to-equity ratio of 89 to 1, Springfield Remanufacturing had to make $90,000 interest payments each month or risk having the bank call the loan. Stack then implemented what he calls the great game of business: opening the books and empowering the people. Stack stated, "Like it or not, the responsibility for the future rests squarely on the shoulders of the people who run America's businesses having clout to bring about real change." Now once a year hundreds of executives from around the world spend two days at Springfield Remanufacturing, observing the great game of business (the team concept) in action. Springfield Remanufacturing survived. Today it is a rapidly growing mini-conglomerate, a business incubator that this year will generate $109 million in revenue and at least $2.8 million in net profit (Quality 12).

Jayne Parker, director of the Disney University, believes teams are the building blocks of world-class

organizations. Supervisory roles are limited by making groups manage themselves. They are given a clear purpose and are held accountable for measurable performance goals (Disney 26). Ritz-Carlton Hotels is a good example where teams direct most employee activities. At each level of the company, from corporate leaders to managers and employees, teams are responsible for setting objectives and devising action plans (Barsky 113). The company believes this approach has led to important benefits. These include proactive thinking beyond day-to-day operations, increased lateral communication among the diverse functions that make up each hotel, and an integrated approach to problem solving.

Focusing team energy on a clearly defined mission should start with three major steps: (1) developing the team mission statement (2) identifying team objectives and outcomes, and (3) determining team goals and measurements.

Blanton Godfrey chairman and CEO of the Juran Institute suggest two key objectives when developing any team mission statement (Quality 17).

One example comes from General Motors technical group. Their mission was to engineer a high quality instrument panel that exceeds federal safety standards, is cost effective, provides maximum function to the customer, is aesthetic in appearance, and has the highest level of fit and finish. GM's diverse teams did in fact develop and deliver the 1997 Series #2 instrument panel, said J. T. Batterberg, Vice President of Delphi. GM is committed to increasing quality while decreasing costs, reducing manufacturing time, and applying design for assembly concepts through teams (Harvard 89). Jennifer Howard, Vice President of the Miller Consulting Groups and a Professor at the Harvard Business School says many companies are facing the challenges of competition by implementing a team-based organization focused on customer satisfaction, profitability and continuous improvement. Team involvement is the key to success. Organizations implementing a team-based focus can expect significant reactions, and reviewing helpers and barriers to team involvement will draw attention to issues that can be

overcome (Digest 82).

The Center for Effective Organization at the University of Southern California developed through research, a model to use working through team development issues which they labeled as helpers and barriers.

According to Stephen O'Brien, vice president at General Electric, "Team leaders are responsible for ensuring the team is focused on the mission, objectives and goals, monitoring the team's plan and assessing the group's dynamics -- which impact their ability to complete the plan and achieve the mission" (Blanchard 84).

When choosing a team leader, companies need to ensure solid leadership, Jennifer Howard, suggests four methods of fulfilling these responsibilities she says the team leader must model appropriate skills in:

- Communication
- Coaching
- Constructive Feedback
- Conflict Resolution

Valerie Oberle, vice president of business development at the Disney Institute has proven that successfully giving performance feedback is one of the most critical, difficult, and underdeveloped skills in today's team environment. Sixty percent of U.S. and European companies in a 1994 Conference Board survey identified poor or insufficient feedback as a primary cause of deficient performance -- by far the highest percentage of any response in the survey (Disney 92). A 1994 survey by Development Dimensions International of over 1,000 workers at seventy-nine companies rated manager's performance at coaching and providing feedback a 3.25 on a 1 to 5 scale (5 was the best) (180).

Tom Peters, co-author of In Search Of Excellence, teaches that a solid foundation of communication, coaching, feedback, and conflict resolution skills are a must for team leaders. Team leaders benefit when they focus their efforts on their circle of influence. When problem situations arise, proactive individuals have a bias for action, focusing their energy on those things they can do something about (Excellence 109).

Stephen Covey, in his best selling book, The Seven Habits of Highly Effective People, states that handling situations in a proactive manner is the first habit of a successful person. Being proactive means taking responsibility for one's attitudes and actions. Proactive individuals are a product of their decisions, not their conditions. To achieve this, Covey emphasizes that proactive people focus on an immediate circle of influence, not upon a large circle of concern (82).

Chapter III

Research Methodology

Small Team Study

If businesses were told that they could improve quality, reduce absenteeism, improve housekeeping, create a sense of ownership among employees, and improve the overall operations of departments without adding any additional manpower, who would believe them?

In June 1995 the Wentzville Assembly Center reduced line speed. In the General Motors organization, an advisor is the supervisor and the team coordinator is the team leader. At that time, the decision was made to reduce the number of team coordinators in order to thus improve operator effectiveness. Prior to the derate (reduction of line speed), the ratio was thirteen operators to each team coordinator. After the derate, the ratio was eight operators to each team coordinator. No additional increase in manpower was required. The lower ratio was achieved by decreasing the number of absentee relief operators and assigning the back-up responsibility of covering absenteeism to the team

coordinators.

During June and July, all advisors and day shift team coordinators were interviewed. The night shift team coordinators were not interviewed because of the loss of the evening shift. Two questions were asked of each participant:

(1). What has improved as a result of going to small teams?

(2). What has not improved as a result of going to smaller teams? Responses covered numerous subjects.

Generally, those advisors and team coordinators who had a more significant decrease in the ratio of operators to team coordinator were much more positive than those who changed only slightly. It must, however, be noted that the comments were overwhelmingly positive.

Caution should be taken in the interpretation of the comments from advisors and the team coordinator since it is difficult to assume a causal relationship between the decrease in the operator to team coordinator ratio. Having noted that caution, a large number of participants felt that quality improved, absenteeism was

reduced, emergency relief decreased, housekeeping improved, operators developed a sense of pride and ownership, and team cooperation appeared to positively impact employee morale.

Some preliminary information relative to the plant going to smaller teams in June 1995 needs to be considered. Prior to the derate the plant averaged thirteen employees per team coordinator, and after the derate, eight employees per team coordinator. Seventeen production advisors were interviewed which included the two process coordinators. Nineteen team coordinators were interviewed from the day shift only. Due to insufficient time, the evening shift Team Coordinators could not be interviewed.

Part one of this analysis is in three sections: one based on the advisor comments, one based on the team coordinator comments and one based on common comments. The focus of the comments is slightly different but many are quite common. The similarities and the differences are important to capture. For the purpose of analysis, the comments are separated by item as well as by listing "more tangible" to "less tangible" items. "More

tangible" would be items that might be knowable, "less tangible" items would be unknowable. Keep in mind, that all of these items are part of a system and that they interact and are interdependent upon one another. Everything affects everything. Part two of the analysis covers "what does it mean" and "what are the recommendations for implementation of small teams."

ADVISOR COMMENTS:

"More tangible" areas that advisors felt had improved include the following:

Quality (11 - indicates number of responses):

1. attendance (8);
2. housekeeping (6);
3. support for the operator (5);
4. advisor (4);
5. added resources (2).

The "less tangible" improvements were:

1. flexibility (6);
2. more cohesiveness in team (6);
3. communication (5);
4. team to team cooperation (3);

5. a sense of pride, ownership and involvement (3);
6. problems that stand out get fixed quicker (3).

Other items mentioned included team to team coordinator relationship, advisor to team coordinator relationship, role clarity of team coordinator, reduced abuse of team coordinator, and improved cohesiveness within advisor group.

When asked what things had not improved or slipped, advisor's responses to the "more tangible" were as follows:

1. sick leave replacements were not timely (3);
   too large a physical area to cover (2);
2. small number of absentee relief operators (1).

The "less tangible" comments were related to:

3. abuse of the team coordinator's time (2);
4. still need more structure to the role of the team coordinator (2);
5. team coordinators feel they are too good to go on the line (2);

Additional comments where that communications had deteriorated because of a lack of team meetings; and there had become slippage in the team coordinator's

activities since the start up of smaller teams.

TEAM COORDINATOR COMMENTS:

Positive comments that went from "more tangible" to "less tangible" were as follows:

1. having more time to take care of the team and other team coordinator duties (10);
2. quality (5);
3. housekeeping (4);
4. able to chase repair (2);
5. handle scrap (1).

The "less tangible" comment were as follows:

1. more cooperation (6);
2. less emergency relief (4);
3. improved communication (3);
4. closer relationship with team (3);
5. able to get problems resolved faster (2);

Other positive comments were flexibility, able to cover real emergencies and team coordinators able to cover each other.

When it came to the not improved comments the "highest" number of comments were as follows:

"There was no change from before" (5).

"More tangible" items were as follows:

1. Greater physical area to cover (3);
2. not enough absentee relief operators (2);

Other negative comments were not having timely replacement for operators going on sick leave, and becoming more of a repairman than a team coordinator.

The "less tangible" comments were as follows:

Having to cover other team coordinator's area (2).

Single comments where management did not stand up to problem people and people still want more breaks (it should be noted that this comment came up in both the negative and positive areas -- although the positive far outweighed the negative, 4 to 1).

COMMON COMMENTS:

When one looks at the "more tangible" common comments, significant patterns emerge. The two most repetitive positive comments were that smaller teams lead to improved quality (16 comments), and the team coordinator could take care of other duties of the team coordinator role which included housekeeping (10), chasing repair, being available for real emergencies; in

other words, supporting the operator and the advisor. Although it was not mentioned by the team coordinators, the comments about improved sense of pride, ownership, and involvement were underlying some of their reactions. The negative common comments were as follows:

1. Timing on sick leave replacements (4);
2. too large a physical area (4);
3. and a small number of absentee relief operators (3).

UNCOMMON COMMENTS:

The most surprising comments that advisors made, but team coordinators did not, was that smaller teams improved attendance. Advisors also mentioned that the smaller teams made their jobs better in that they no longer got involved in problems they previously did because the team coordinator, with a smaller team, was able to handle those problems. Remember, also, that five team coordinators felt little or no change had occurred and one advisor echoed the same sentiments.

WHAT DOES IT ALL MEAN?

First, several caveats (as Deming states): "don't confuse cause and effect with coincidence" and

"correlation does not imply causality". All indications are that smaller teams do have a positive impact on smoother operations; we have research findings that support this idea.

Even though it is a large assumption that smaller teams have positively influenced operations, that is exactly what the respondents to the survey stated. The large number of responses that indicated quality had improved was somewhat surprising, but the fact that this was supported by both advisors and team coordinators strengthens that observation. When one considers that the largest number of comments of the team coordinators were smaller teams allowed them to take care of other duties such as chasing repairs, and watching quality in their area (containment). It should not come as a surprise that advisors and team coordinators alike believe that quality has improved.

A second positive outcome that got support from both the advisors and the team coordinators is the improvements made in housekeeping. The mere fact that a large number of team coordinators stated they were able to take care of housekeeping in their areas, and that

the advisors supported this with their observations, should give enough support to this response. Like the expectation on quality, this is probably an outcome that we would have anticipated if we had given them much thought.

A third outcome that was mentioned only by the advisor group was that absenteeism had improved. Even if it did not positively impact the department wide absentee rate, a number of comments from advisors that with the smaller groups producing more cooperation and cohesion within the team, and knowing that there was only one A/R man per advisor group, employees were more aware of the impact of their coming to work on a consistent basis which probably led to better attendance. Essentially, even when an employee had a legitimate reason for being gone from work, he would make an effort to rearrange his schedule as to not negatively impact his team. Even when he would miss some time, he would try to make it to work for those hours he was able to be present. Surprisingly, team coordinators did not report this, indicating that peer

pressure is working to some extent. It is difficult to say that this outcome should have been unexpected, but given our experience here at Wentzville, it probably was. In that sense, it might be a counter-intuitive outcome.

A number of issues were previously called "less tangible." These also could be called "soft side" issues, or the glue that holds the other parts of the system together and makes them work. I will call them the three Cs and an F: communication, cooperation, cohesiveness, and flexibility. Flexibility should be the first of these since it relates to the role of the team coordinator in small teams. The additional flexibility started with the team coordinator, spread to other members of the teams, and is related to the issue of absenteeism. Part of the team coordinator's role was to cover the absent operators beyond the one A/R per advisor group. This flexibility of the team coordinator carried over to the other duties as well. With less emergency relief time spent, team coordinators were able to handle other duties such as the lines of things that Design Team I listed for them.

Several advisors made the comment that team coordinators now handled things that previously came to the advisor. This is probably due to the team coordinator having the time, assuming additional responsibility, being more flexible, and offering improved support for the operator. This is one of the things that falls into place as a result of the "system effect" that smaller teams can have.

Improved communication should not surprise us. Research clearly shows that a smaller group communicates better than a larger one. More "air time" is established for each member and is easier for the team coordinator to get to each member. The one comment that should be made relative to communication is that we do not have the full benefit of this because of fewer team meetings. When we do have team meetings, time is often taken up with "management's presentation". Valerie McClelland's agenda notion that employees will only "hear" management's agenda after they know that management has first "heard" their personal agenda should be remembered.

Cohesion is a lot like communication; one would expect it to improve as a result of having smaller teams. One comment that was not expected was that this had a positive effect on the advisor team working better together (there goes the system effect again). This does take some work on the part of the advisor. It may improve just by having smaller teams, but that can be enhanced by having a structured process in place for the advisors to use. It also should be noted that several advisors stated that this may be a short-term negative, but that the effort on the advisor's part in taking the time and putting in the effort will improve things over a longer period of time. Consideration should be given to this for future training.

RECOMMENDATIONS FOR IMPLEMENTATION OF SMALLER TEAMS:

The first thing that needs to be said, is that if the decision is made to go to smaller teams in a department or on a plant wide basis, there should be a total commitment in terms of visible behaviors on the part of the top management of that unit (plant or department) to the concept of doing our work in teams. The "team" way of doing business has to become

"systemic" or, as another stated, "just the way we do things around here". This has implications for supporting behaviors by everyone and a commitment to consistently have whatever meetings that support this process (team coordinator meetings, super team coordinator meetings and team meetings).

A clear understanding of the team process starting with all members of management affected is mandatory. (Take this point to the extreme and be cautious in deciding to implement it if you lack a consensus; continue this clarification and understanding with team coordinators and eventually the team.) There should be a deeper understanding to the point of seeing the connections of the "system", a perfunctory buy-in will only lead to negative outcomes.

Several advisors stated that they felt the team coordinator's role needed more structure. More structure could be a result of a lack of role clarity, some resistance from specific team coordinators, or lack of consistency between advisors as they move from team to team. It might be something that we would want to

look at. No one mentioned going to a different form of team coordinator selection that might provide a little more structure.

A better process for replacements for sick leaves needs to be found even though this is contractually related. This could become the Achilles heel of small teams. This item was mentioned by both advisors and team coordinators and several stated that it was the weakest part of the system.

In the role negotiation process and establishing the entire framework for smaller teams, we set expectations for both the team coordinators and the team, and we did not back down from them. We were consistent between what we said and what we did (we walked the talk). The 95 to 98 percent people who are competent have been telling us this for years, but we cannot seem to get that through our heads. For example, we did not add any A/R people, and this probably produced "peer pressure" for people to be at work as much as possible.

As a closing comment, one advisor felt that we (management) had "dropped the ball", we got

"comfortable" with the process and stopped short of a continuous improvement cycle. The American psyche seems to allow us to get "comfortable" after making progress to a certain level, we find it difficult to get into the "continuous improvement cycle". Based on several comments that both advisors and team coordinators made about this being the best thing we have ever done and why didn't we do it sooner, surely supports the idea that we could have even gone further with it than we did. We somehow need to look at including a continuous improvement feedback process into a team process. Maybe this is related to our mind set that things automatically work without visible support from management. People establish a comfort level and once it is established, they do not want to leave it.

TEAMWORK AT TOYOTA

The Toyota - General Motors joint venture is an excellent example of how a very traditional organization changed, and now leads the U.S. in participative management, breaking down all barriers.

In 1983, a joint venture between General Motors Corporation and Toyota Corporation was established. The two automakers agreed to establish an independent company to produce cars at the site of the former GM plant in Fremont, which had been closed in 1982. The United Auto Workers (UAW) entered into discussions soon after the agreement to establish the "Toyota Production System."

Over 2,000 people were hired and informed that it would be essential for everyone to contribute to an environment based on mutual trust, respect and cooperation. Employees of the former GM plant comprised 80 percent of the new hires. Instead of calling employees "workers" or "operators" a new name was created; they were called "team members," and they had to prove their abilities in a three-day assessment.

During their first week of employment they had four days of instruction on the team concept, production system, quality principles, attendance policies, safety policies, labor-management relations, housekeeping and competitive conditions in the auto industry.

This training program shows immediately what teamwork really is; one part of a structure called the "Toyota Production System" (TPS). From the beginning, when they still could feel the shock of being laid off, the teammembers were focused in one direction: the Toyota Production System.

Many members of lower management, such as group leaders and assistant managers, are from the former GM plant. Upper management was not staffed with former GM employees; many of them came from Ford. Management was prepared for the new task with special programs including a visit to Japan to study the Toyota Production System.

Formation of Teams

Throughout the company small teams were formed and given responsibility in their areas for quality, production and safety. These small cells give shape to

the production system. Each of the teams has three to six team members and one team leader. Having a small number of team members has several advantages:

1. The team members know each other very well.
2. Working in the same area keeps the other team members in sight if assistance is needed.
3. Problem solving is more effective.

Teams normally stay together until model changes make reapportionment necessary. If a "kaizen" (just-in-time) process enables an operation to be done with fewer people, team members are transferred to other areas.

The Role of Team Members and Job Rotation

The team members' role is more than just doing the job, practicing good attendance, doing housekeeping, cleaning and arrangement. It is their obligation to pass only a quality product to the next station. This is not only "lip service," as is evident when team members fix even little mistakes made by their colleagues further up the line. Work has to be done

exactly as described on the work process sheet and standard operation sheet.

If team members happen to recognize a quality defect, they have to do something to correct it. Normally, they pull the andon cord to call the teamleader, who repairs it or calls for help. They fix small defects themselves if, for example, only a clip has to be inserted.

The team members are expected to use the knowledge they gained in training. This includes suggestions, safety and quality.

The team members' skills are not reduced to one particular job. Display boards in the team rooms at NUMMI's car assembly line show the training status of each team member:

Requires Training

Understands Job

Can Assemble

Within a certain amount of time after start of production (S.O.P.) of a new model, when everything is going smoothly and the team members know all the jobs

within their team, they start job rotation. Every two and a half hours the team members rotate their jobs to avoid injury and to use other muscles, but also to prevent boredom.

Toyota's truck assembly line has not implemented job rotation so far and is not willing to introduce it in the near future. A task time of 140 seconds (more than nine minutes of work content with four team members) includes such a large number of job elements in one team that the team members might not be able to fully perform their standardized work. Quality decreases with the concentration needed for a particular job. In the truck assembly, team members rotate between only primary and secondary jobs in case similar lefthand and righthand parts are used on each side of the line.

The Role of Team Leaders and Group Leaders

Team Leaders have responsibility for their team. This is more a coordinating role than a supervisory role. The team leaders' tasks include quality control, training, teamwork building, kaizen, and counseling. There are two more responsibilities of the team leaders

that are more important than all of the above mentioned items: absentee replacement and production leveling. In fact, these two responsibilities are outstanding, because team leaders provide the flexibility necessary to this production system.

Most GM Plants let the worker do his job away from his regular position whenever he/she finds it necessary. Although this creates disadvantages in quality, ergonomics and productivity, this principle helps us to handle the variety of options we have in our production system. The realization of standardized work with a work content of almost 100 percent leaves no capability to dealing with options. Because of the team leaders' production support at Toyota, the work content, including options, can be more than 100 percent, if these options do not occur too often.

Group leaders represent lower management at NUMMI and are responsible for the production system of their three to six teams.

Group leaders do overall planning for their groups and support the team leaders and team members in all their duties. This not only includes advising, but also

physical support like bringing parts, assisting in case of break downs or even assembling parts if necessary. They assist in the implementation of suggestions as well as in some engineering tasks.

Since they are supervisors they direct team members and team leaders and discipline them if necessary.

Prerequisites for Team Work

The Toyota Production System is often described as a building standing on four cornerstones:

1. Mutual trust and respect
2. Teamwork
3. Equity
4. Employee involvement

These become nothing more than empty hulls if there is not a steady filling process. Management has to be trained in this attitude, especially as it has been a normal rule in a manager's career to compete with colleagues in order to attract the attention of their supervisors.

The ability to work within a team is one of the prerequisites to success at Toyota. This does not mean

that NUMMI has outstanding management. They also have problems following the four cornerstones, particularly supervisors from the former GM plant who are now group leaders, as well as upper management, which have not always learned to work this way. They also have their problems in maintaining trust and equity. For example, the 1991 Team Member Survey revealed that many team members feel management still needs to improve in the area of favoritism.

The workers find it hard to believe that they are really regarded as the people who add value to the product, if salaried employees and management are sitting far away in fancy offices, and they have to suffer under poor working conditions. At Toyota, both management and salaried personnel accomplish their tasks as production support staff, very near to production, with an open door policy. There is no executive dining room and even upper management has no reserved parking areas. No one shows off with expensive clothing, and suppliers can be easily recognized as such because they still wear ties.

The day-to-day press of business can prevent

managers from listening to their people. No matter how many meetings a manager attends and how carefully he or she evaluates the invasion of memos, improvements are only possible if management knows the problems in their area of responsibility.

GM is trying to implement the tool called "quality network." This is the key to supportive management behavior and Toyota is several steps ahead in the implementation of the ideas behind quality network.

Tools To Establish The Production System

Standardized Work

The idea of standardized work was born to reduce waste. The more often work content repeats, the more sense it makes to organize it. The number of steps combined to make up one work process should not be too high. Planning gets too complex and following the instructions exactly might be too difficult. Every single step of an operation has to be done the same way on each of the cars. This starts with the reading of the manifest, then getting the parts, always done in the same sequence and using the same technique of assembly

on every car and in both shifts.

In general, the working area for a team member is reduced to the length of one car. The conveyor belt always stops at the same place and the team members have start and finish lines marked on the floor. This allows the elimination of several types of waste:

1. **Repair**. The team members are able do every step of the assembly according to standardized work, so the number of cars assembled wrongly is decreased.

2. **Unnecessary handling or movement**. Once the team members agree on a common method of assembly, they always do it this way. This may not always be the fastest method of assembly, because ergonomics (repetitive motions) and quality are taken into consideration as well.

3. Overproduction. Workers tend to stockpile parts which gives them a feeling of controlling the machine rather than being controlled by the machine. Of course, this means extra handling which is wasteful.

4. Injury. A work area without interference from others allows equipment, such as traveling trays, to be

used for an operation. There are many examples of functional equipment, which wouldn't be possible in other plants, because it would get in the way of some of the workers. Ergonomics is a major concern in standardizing the work content.

Andon And Just-In-Time

The andon system and just-in-time (JIT) production are closely related. Because of JIT production, the time available to communicate material needs is short. Andon is a tool which solves this problem.

Andon is the name for a system of communication that enables team members to call for assistance without leaving their work station. Whenever the team member must request assistance or material, he or she can either pull the andon cord or push an andon button.

The andon cord runs along both sides of the assembly line at a height of about 2 meters. Team members are encouraged and expected to call the team leader in every case of deviation from the standardized work. This can be a part that doesn't fit, a defective part from another team, shortage of parts, need for

tools, restroom break, or work overload in the case of options. The button is used in repair areas to call the leaders from the responsible teams. The andon system is also used as a material pull system.

The andon board is a device used to show the current status of the assembly line. When an andon cord is pulled the number of the group that pulled it will be shown on the board. This number will turn from yellow to red when it comes to a line stop. The purpose of this is not to blame any of the teams, but to spread information. Team leaders and group leaders know they are asked for help and other teams are informed about the reason for the line stop. And andon board in trim even shows, "Short in paint," if this is the cause for the delay. This is not necessary information, but a question that everybody who works on the line asks. So why not share the information?

We tend to record statistics about downtime from the left to the right and from the bottom to the top. NUMMI does not. All they calculate is the percentage of cars actually built compared to cars that should have been built. Their efficiency is normally about 94

percent, which is also their target. Our target is 100 percent. NUMMI's management knows it is discouraging not to achieve the target. The results in terms of efficiency are the same, but NUMMI also considers the psychological effect it has on employees.

JIT production can be defined as the production of parts in exactly the correct quantity at exactly the time needed. JIT bases production on customer requirements instead of the machine capacities. Lean production is the result, where small defects in the system are obvious and can be eliminated efficiently.

As mentioned previously, Andon is one example of the material pull system. More frequently used is the kanban system. Suppliers and kanban, or reorder point cards to the parts in the containers. When the box is opened the team member pulls the card out of the container and lays it in to the chutes attached to the side of the racks. The cards can easily be picked up and new parts arrive within one hour.

Tools to Keep the System Running

Training

The different responsibilities of team members, team leaders, management and upper management require individual training.

Team members start with a three day orientation. Topics covered include Toyota principles, standardized work and safety. Within the first three to six months they also have three one-day training sessions on team building, problem solving, safety, quality and Japanese culture. Concern for safety is the reason that newly hired team members also get an introduction in the correct and safe use of tools.

Prepromotion training for becoming a team leader is not paid by the company. Ten two-hour classes increase the team member's knowledge in standardized work and meeting skills. After a team leader's promotion they get training for one week including team leadership, problem solving, individual communication skills and motivation.

These classes for hourly employees help them to realize their importance in adding value to the product.

The responsibilities of team members include everything from day-to-day problems to continuous improvement and so does their training.

Management training at Toyota is not explained in detail in this paper, as the focus is on the team concept. In addition to the training in general requirements, there is training for the team member's specific job.

Suggestion Program

Toyota's suggestion program has a much higher participation rate than American programs. Steady encouragement is one of the reasons but the motivation goes deeper than that.

Toyota implements suggestions sooner than we do. In many cases it takes only about one month from suggestion to implementation; in difficult cases up to ten months.

Toyota's suggestion program is participation oriented rather than cost-savings oriented. The average award for an adopted suggestion is $31 at Toyota and $700 at Ruesselsheim.

Touches for Team and Company Spirit

The personal touch program allows $15 of company money every six months to be spent for each team member who participates in an outside group event. This might be a dinner or other activity with the group, and family members are encouraged to attend.

The company picnic is for all employees and their families. The cost of the picnic is partially offset by the company. About 8,000 people attended the company picnic last year.

Christmas lunch is free for everybody and it includes much more than just food. Tables are prepared for 1,800 people per shift and there is live entertainment, but the most popular idea is the change of roles: Management serves food to team members and gives hand-wrapped Christmas gifts to every single employee.

The team concept is a management system which is driven by key empowerment principles, and supported by lean production tools and procedures that are efficiently followed and utilized routinely by everyone based on clearly defined roles and responsibilities for

each team.

What Drives the Team Concept?

A long list of things drives the team concept, but there are many inter-connecting elements that have to be planned and implemented in cooperation with the people that have to live in the system day in and day out.

Two things we can never forget. Running the team effectively means doing more than just standing on one's feet for eight (8) hours in groups, mindlessly repeating tasks. It means people working efficiently and always thinking of improvements. The desire alone is not sufficient to do what is required. It takes skills, acquired through training.

People also need to know how they are doing, and this requires a well-structured feedback system. Team meetings, area meetings, departmental sessions, all-employee meetings, manager and president audits, daily audits, and one-on-one meetings are all the tools that one can employ to provide feedback on people performance.

Chapter IV

Results

Mutual Trust and Respect

To seek the level of commitment and involvement necessary to make the system flourish it is vital that an environment permeated by trust and respect be created and, more importantly, sustained. Trust and respect are values which must be created by the efforts of management, both in words and deeds. Only when management fully understands what trust and respect mean in daily operations will the organization succeed. Although management and labor will not always agree, it is vital for management to seek a common ground to foster the understanding that labor and management have common responsibilities and a shared goal. To create and sustain such a relationship with employees, management must:

1. Recognize the efforts of everyone - Tell people they have done a good job, but also give good, constructive, criticism or feedback. Feedback on where improvement is needed and how it can be

accomplished will earn a supervisor trust and respect. Even the worst employee will perform a job correctly more times than incorrectly. Positive contributions must be built upon, encouraged and fostered. Never take the attitude that he's only doing what he's paid to do! If this attitude is adopted, soon an employee will only give the bare minimum.

2. Acknowledge employee contributions - The person the job knows best! Always seek out involvement from employees. Never force work methods upon them. Once the involvement is achieved, recognize the efforts made and then allow a degree of freedom so that the employees can investigate all the options. If an employee's idea is accepted it will work better in the long run because of the commitment and involvement. A sense of ownership will prevail which must benefit both the employee and the company.
3. Treat people with decency - Create an atmosphere where employees know that the company and the supervisor cares for them. Promote the "soft

issues", such as ensuring ventilation, lighting, eating facilities, and noise levels are acceptable to all employees. Make the employee important, and find the employee the best working environment possible so that his/her job is enhanced.

4. Empower employees - Allow employees to stop the line for quality or productivity problems, thereby making them responsible for quality and productivity. Suggestions for improvements should be actively encouraged. If these suggestions are accepted the employee should be rewarded. If the ideas are not accepted initially, then management should work with the employee to make the idea work. Once an employee's idea is implemented, it will remain implemented because of the commitment and involvement.
5. Allow opinions to be given freely and without retribution - Look at policies, procedures and even decisions from the employee's viewpoint and

always consider if there will be any opposition before establishing that policy, procedure or decision. Don't rely on a majority opinion. Always consider the minority as well or alienation will occur. Always openly communicate with the minority. If you make an error acknowledge the fact. This will show the employees you are committed to "doing the right thing" and will build trust and respect. Always allow two-way communication and always listen.

Team Meetings

Meetings represent a significant business investment. Thousands of dollars (based on the cost of participants' time) may be invested in a meeting. The team approach to product development requires regular team meetings - and it is a misuse of resources if meeting time is used ineffectively.

Too often, the major responsibilities for conducting a meeting fall on the team leader's shoulders. The team leader developed the agenda, facilitated the meeting, did most of the talking, and taking the minutes. In many cases, several additional

hours were spent organizing and distributing the minutes and attachments. In today's team environment this traditional approach is no longer appropriate or viable.

Teams provide an opportunity for team members to share the meeting roles and responsibilities. And, with the proper organization, all the work can be done within the meeting; everyone can leave the meeting with a copy of the next agenda, "to do" list and brief summary of the minutes. This will save valuable minutes and hours for all members of the team.

Ground Rules

Ground rules represent the "process" guidelines for effective team interactions. Developed, discussed and accepted by team members, ground rules:

1. Define how team meetings will be conducted.
2. Determine the expectations for all individuals on the team.
3. Keep the team on track.
4. Ensure greater value for time invested in the meeting.
5. Increase team performance.

Ground rules can focus on the structure of the meeting or the interpersonal behaviors each team member should be held accountable for. Each team will determine its specific needs when asked, "What actions or behaviors must you observe in order to be a strong contributor to the team?"

There is no "rule" about the length or number of ground rules a team should possess. However, the list should include those expectations that would allow all team members to actively participate.

Posting ground rules serves as a constant reminder, especially when the "going gets tough." Reviewing and updating the team's ground rules on a regular basis will encourage team members to perform in a manner consistent with the group's expectations.

ACTION PLAN/TO DO LIST

THE BENEFITS OF AN ACTION PLAN/TO DO LIST INCLUDE:

1. Identifies at-a-glance who is responsible, due date and outcome.
2. Inform team members of actions to be taken.
3. Allows a team to effectively monitor the status of assignments.

THE FOLLOWING ARE THE TIPS ON HOW AND WHEN TO USE THE ACTION PLAN/TO DO LIST:

1. Only record those tasks, issues that will be resolved within the next month on the ACTION PLAN/TO DO form.
2. One of the team members will record tasks/assignments as they arise during the meeting on a blank ACTION PLAN/TO DO form.
3. The team member will identify **what** task is to be completed, **who** owns the assignment, **when** it will be completed and the **outcome** or result to be expected.
4. Review the list of assignments at the end of the meeting to insure accuracy. Distribute copies

of the ACTION PLAN/TO DO list(s) along with the meeting agenda and minutes at the end of the meeting.

OPEN ITEMS LIST

THE BENEFITS OF AN OPEN-ITEMS LIST INCLUDE:

1. It documents all team concerns, problems or issues to resolve.
2. Enables a team to document the status of an "open item" until it is resolved.
3. Assignment of responsibilities and reporting date are clearly stated.

THE FOLLOWING ARE TIPS ON HOW AND WHEN TO USE THE OPEN ITEMS LIST:

1. OPEN ITEMS are those issues and concerns that can not be resolved within one month.
2. Record OPEN ITEMS as they are identified in team meetings.
3. Only discuss OPEN ITEMS that have a target for the current meeting. This will save time and provide an opportunity to discuss specific issues in greater depth.
4. Always determine the next step: "what," "who"

and "when."

5. Once OPEN ITEMS are closed, create a separate listing of "closed" or "completed" items. This list may not need to be published after each meeting, but it creates a history for future reference.

MEETING ROLES AND RESPONSIBILITIES

Within highly effective, self-managing teams, team members assume ownership and share responsibilities within team meetings.

Roles that are shared and rotated include:

1. Chairing or facilitating the meeting.
2. Setting the next agenda.
3. Recording the meeting minutes during the meeting.
4. Identifying tasks for action plans or open items.
5. Maintaining time frames.
6. Making a photocopy of the agenda, action plan and meeting minutes and distributing.
7. Assessing the appropriate decision-making method

for a situation.

SOME HELPFUL HINTS FOR MEETING ROLES AND RESPONSIBILITIES INCLUDE THE FOLLOWING:

1. Roles that will assist the team to manage its business should be identified early in the team meeting process.
2. Roles may be rotated on a monthly or quarterly basis.
3. Provide all team members with the opportunity to assume meeting responsibilities.
4. Evaluate the meeting roles on a regular basis to ensure they provide value for the team.

PRESENTATION SKILLS

There are many schools of thought on how to develop a more confident, enthusiastic, and persuasive presentation. The following strategies are taken from a variety of sources and will serve as a basis for you, the presenter/instructor, to select and use if you so desire.

Dynamic Physical Skills For Better Speaking:

Physical Skills provide you with the ability to control the brain and body under pressure so that

nervousness and inhibitions do not interfere with the message you wish to communicate. Here are some do's and don'ts:

1. Do maintain eye contact with your audience until you have completed a thought and feel comfortable and in control. This should take a minimum of five seconds.
2. "Lock in" on one person before you begin to speak.
3. Work at eye contact on a daily basis when you are talking "one-to-one."
4. Communicate with a high energy level, physically, visually and vocally.
5. Start your presentation by projecting visually and vocally to those farthest away from you. Be exciting.
6. Don't move your eyes to floors, walls, or ceilings when pausing to think. Always maintain eye-brain control with an individual member of the audience.
7. Don't give in to the "pain of the pause" by

adding "and-uhs". Only you feel the pain; the pause communicates confidence and control to the audience.

8. Don't deliver a presentation as if you were standing inside a telephone booth.
9. Don't burn up energy by aimless walking around. Build a good solid base that is comfortable and use energy from the waist up where it is most effective.
10. Don't plan gestures. They will look contrived, artificial and unnatural.

Speaking Dynamics - Visual Aids

Visual aids hold attention. Eighty-five percent of all information the listener has stored in his or her brain has been received visually. Visualized information is more easily understood and retained. The following are some do's and don'ts when using visual aids:

1. Do test your equipment prior to your presentation. Make sure you know how to operate the overhead projector, video player and television, and slide projector. Test the sound

level and visual appearance of your presentation prior to your audience arriving. Have the video set at the point where you want it to begin (don't make your audience sit through the countdown and other irrelevant portions of the video).

2. Do make certain the visual is positioned so everyone in the audience can clearly see it.
3. When using either slide or overhead projector, keep as many lights on as possible.
4. Immediately identify the graphics when the visual is exposed. Tell the audience what it is and what it means.
5. Touch the visual at the point where you want the audience to focus its attention.
6. Don't pace around between the audience and visual.
7. Don't talk while looking at the visual, while turning to the visual or with your back to the audience. Only talk when you are locked in eye contact with a member of the audience.

8. Don't assume an attitude of "as you can see."
9. Don't turn all the lights off when using slides or overhead.

Speaking Dynamics: Question and Answer Dialogue

The objective here is to establish a positive and informal relationship mood between you and your audience. A question and answer dialogue after a presentation is encouraged to be sure you've made yourself clear, and to offer the audience an opportunity to react to your presentation. Here are some do's and don'ts to follow:

1. Keep your point of view clearly in mind while answering questions, so as not to cloud your original objective.
2. Try to keep your answers short.
3. Rephrase and restate each question to the entire audience for clarification, and address your answer to the audience, not to the individual questioner.
4. Move around the audience when accepting questions so that the total audience is involved, not just one section of it.

5. Think only of the question (not the answer) when it is being asked. Think of how you will answer it when you are rephrasing it.
6. Turn accusatory statements into questions. If a question is of a personal nature, depersonalize it when you rephrase it to the group.
7. Defuse emotional questions by politely asking for clarification of non-specific words.
8. Don't get into a one-on-one discussion with a member of the audience.
9. Don't ask for approval of your restatement of the questions you were asked (i.e., is that the question you asked?) If the questioner is not satisfied, he or she will ask again.
10. Don't go back to the questioner and ask for approval of your answer.
11. Don't end your answer in visual contact with the questioner since he or she may take this as an invitation to ask another question.
12. Don't lose your cool. If a member of the audience is irritating you, accept the question,

rephrase it, and avoid eye contact by directing your answer to the group.

13. Don't try to bluff an answer. If you don't know the answer, admit it.
14. Don't say, "your question is not clear". If you don't understand the question, ask the person to repeat it.

Ten Tips for a Great Presentation

1. Stand, don't sit. When you want to make a point, you do it best by standing. You and your message are the center of attention.
2. Use cue cards. Under the pressure of speaking to a large group, it can be tough to remember the sequence of your presentation's major points and their subpoints (a bulletized transparency serves the same purpose). Write a couple of words on a 5" by 8" card describing your main point and, beneath that 3 or 4 subpoints. When you give your presentation, pause, look down at the card to jog your memory, and step away from the lectern and deliver your first point (don't read your ideas).

3. Face the audience directly. Face the group, feet ten to twelve inches apart. Keep your weight evenly distributed on the balls of your feet, and don't shift your weight from one leg to the other. Keep your knees unlocked, hands out of your pockets and arms at your side. It's o.k. to move as long as your movements and gestures support or add to your message. You may take a step or two, but don't pace back and forth.
4. Use your hands. Movement (gesturing) is a critical element of every presentation if you want the listener's attention. And burning off your nervous energy with forceful gestures is much better than pacing, pushing up on your glasses or turning your ring. Avoid small gestures with closed hands close to your body, as if your arms were tied, since they don't support your message. Don't hold pointers, pens, pieces of paper, microphones or remote control switches. You may start playing with them and listeners will focus on your hand-playing instead of your presentation.

5. Drink hot liquids. One of the side effects of presentation anxiety is a dry mouth and tense throat. To overcome this, drink hot liquid, such as coffee or tea to relax the throat muscles and provide saliva (cold drinks help the dry mouth, but tighten throat muscles). When you start to speak your voice can be low and fade because of tension or a dry mouth. The way to overcome this is to speak loudly when you begin and direct your speech to someone at the back of the room.
6. Focus for at least three seconds. Hold your focus on each listener separately instead of sweeping your eyes around the room. Effective eye contact focuses on each listener for three full seconds or longer. Extended eye contact will help pace your presentation.
7. Ask questions to elicit questions. When the presentation is over and the presenter asks, "are there any questions?" and none come they think they've covered all the bases. This is not generally true. As a presenter, you need questions to gauge how completely your ideas were accepted.

You need to encourage and promote them, and give the listeners time to think of questions. Ask the group a question and ask what questions you may answer (give into the silence for 10 to 15 seconds). Raise your hand when you ask for a question so the group visually knows how you want them to respond (not to blurt out, but raise their hand to be recognized).

8. Look around when you answer. As questions come, handle them in a three step process. First, indicate which question you'll take by pointing to the person. Second, give 100 percent eye contact to the person asking the question (showing that both the question and questioner are important). Third, when the questioner finishes, pause and repeat the questions as you move your eyes around the group. Always repeat a question, since some listeners may not have heard it. Repeating it also gives you time to consider your answer.
9. Neutralize negative questions. When a questioner asks a concise question, there is nothing wrong with simply repeating the exact words. However, you can

restate a question so that it appears more positive. You shouldn't distort someone's question, but you don't have to repeat it so that it's stacked against you.

10. Never praise a question. You should never compliment a question by responding "excellent question," or "I'm glad you asked that." Once you do this and don't compliment the next question, that questioner will wonder, "isn't my question outstanding too?" Also, unless you know everyone's name, don't call anyone by their first name. "Yes," is fine. If you go around the room taking questions by saying the names of some and not others, the people you don't call by name may think you feel they are not as important.

Effective Presentation Skills: Reducing Anxiety

1. Organize. Lack of organization is one of the major causes of anxiety. Knowing that your thoughts are well organized will give you more confidence, which will allow you to focus energy into your presentation.

2. **Visualize.** Imagine walking into a room, being introduced, delivering your presentation with enthusiasm, fielding questions with confidence and leaving the room knowing you did a great job. Mentally rehearse this sequence and it will help you focus on what is needed to be successful.
3. **Practice.** Many speakers rehearse a presentation mentally or with just their lips. You should practice standing up, as if an audience were in front of you, and use your visual aids. At least two dress rehearsals are recommended. If possible, have someone critique the first one.
4. **Breath and Relax.** When your muscles tighten and you feel nervous, you may not be breathing deeply enough. Sit up erect, but relaxed, and inhale deeply a number of times. Instead of thinking about the tension, focus on relaxing.
5. **Release Tension.** To release some of your accumulated tension and nervous energy, try doing a simple unobtrusive isometric exercise. Tighten muscles up through your body and immediately release all of the tension.

6. **Move.** Speakers who stand in one place, and never gesture, experience tension. To relax you need to release tension by allowing your muscles to flex. Practice upper body movement and releasing your arms for natural gestures. You should be able to take a few steps, either side to side or toward the audience to help loosen muscle tension.
7. **Eye Contact.** Try to make your presentation similar to a one-on-one conversation. Relate with to audience as individuals, and be personal and personable. Eye contact should help you relax because you become less isolated from the audience.

Effective Presentation Skills: Visual Aids:

1. Use visual aids when you need to:
   - Focus the audience's attention.
   - Reinforce your verbal message (but not repeat it verbatim).
   - Stimulate interest.
   - Illustrate factors that are hard to visualize.
   - Use the "Keep it Simple" principle when designing visuals as not to overload the audience.

2. Don't use visual aids to:
   - Impress your audience with overly detailed tables or graphs.
   - Avoid interaction with your audience.
   - Make more than one main point.
   - Present simple ideas that are easily stated verbally.

The Presentation Environment:

1. **Overhead Projector.** Make sure the bulb is not burned out and a spare bulb is available. A clean projection screen can sharpen the image. Are clear transparency sheets needed as write-on overlays and pens to use on them?
2. **Flip Charts.** Is there enough paper? Do you have a supply of marking pens available?
3. **Slide Projectors.** Is in working condition? Is the lens large enough to project the image size you need? Do you need a remote switch or someone to operate it for you?
4. **Handouts.** Are handouts easily accessible and in order, so they can be handed out with minimum

disruption? Do you need assistance in handing them out?

5. **Pointers**. Will you need a pointer and is it accessible when you need it?
6. **Microphone**. When speaking to groups of more than fifty, you may need a microphone. Do you need a microphone to be heard at the back of the room? Do you need a hand-held, or cordless microphone?
7. **Lighting**. Do you need the lights dimmed during your presentation? Do you need assistance in turning lights on or off and what effect will it have on your visual aids?
8. **Seating Arrangement** - Is the seating arranged in the best way for learning? Do the participants need tables for taking notes or do they need to interact as a group? If possible arrange the seating such that both the exit and entrance to the room is at the rear. If people come and go this will cause the least amount of distraction. Try to keep the audience closer to front of the room so they focus their attention on your presentation.

Effective Presentation Skills: Delivering the Presentation

1. **Posture.** Keep your posture erect but relaxed. Stand up straight but not stiff. Keep your feet pointed towards the audience with your weight evenly distributed. Don't shift your weight from one leg to the other since this can distract the audience.
2. **Movement.** Typically, speakers tend to stand in one spot. If appropriate, move to the side or front of the lectern to get nearer the audience. When not using a lectern, you should stay within 4 to 8 feet of the front row. An occasional step to either side, or even a half-step towards the audience for emphasis, can enhance your presentation.
3. **Gestures.** The use of natural gestures, releasing anxiety, is an important channel of communication. Gesture in front of the audience exactly as you would if you were having a conversation with a friend.
4. **Eye Contact.** Eye contact opens the channels of communication between people. It helps establish and build rapport. It involves the audience in the presentation, and makes it more personable. Good eye

contact between the speaker and audience also helps relax the speaker. A rule of thumb for eye contact is 1 to 3 seconds per person. Try not to let your eyes dart around the room.

5. **Using Your Voice.** There are three main problems to consider associated with voice: a monotone, inappropriate rate of speech (usually talking too fast), or volume that is too loud or too soft. To alleviate a monotone voice you must relax and release tension through upper and lower body movement. Problems with volume can be solved with practice. It is appropriate to ask during your presentation if you can be heard in the back of the room, or if you are speaking too loudly.

Role of the Team Leader

The team leader is directly responsible for the performance of the team. The team leader must have sufficient knowledge and ability to perform proficiently, and on a regular basis, every operation of the team. The team leader will provide absent, medical or miscellaneous relief for his/her team members. The

Team Leader is an integral part of the team building process.

The team leader will meet the supervisor before the start of the shift.

A. Prepare Team for Work

The team leader will inspect work sites for safety, equipment functions and housekeeping. The team leader will check manpower and notify the supervisor of manpower requirements. The team leader will hold short meetings with the team members and show leadership by participating in group exercise.

B. Initial Start

The team leader will insure that the team is ready for work. The team leader will check on health and welfare by asking each member how they feel, and check to insure proper safety equipment and apparel are in use. The team leader shall check the operation at start-up to insure quality.

C. Continuous Communication -- The team leader will:

1. Communicate with other departments to insure quality products are built at each work site

process, and get together with group leaders and other team leaders throughout the day to gather information about any problem areas.

2. Solve problems at the work site.
3. Solve team member problems and complaints.
4. Coordinate quality control activities, initiate and implement standards, specifications and characteristics of each work site.
5. Encourage the use of methods that will properly solve problems.

D. Personal Touch (P.T.)

The team leader will introduce new members to the group, plan parties and outside company events for the group.

E. Maintain the Team Concept

The team leader will communicate with all team members on a daily basis in order to maintain effective team building concepts.

F. Waste

There are six categories of waste:

1. Production
2. Inventory

3. Motion
4. Waiting
5. Processing
6. Correction

G. Overburden

There may be overburden at the worksite, overburden of mental or physical tasks of the members of the work site team, or overburden of the work site machinery by working machinery and equipment above normal capacity.

H. Unevenness of the work cycle, material placement, parts placed too far from work site, tools or equipment placed in awkward position. The team member will endeavor to eliminate irregularities.

I. Training

It is the team leader's role to conduct on-the-job-training. All members of the work site team must be multifunctional workers with the ability to perform all segments of the work site process. This includes both the manufacturing processes of the work site. Team leaders and team members will

insure that equipment and machines are in good working condition.

J. Housekeeping

1. Cleaning -- The practice of dividing needed and unneeded items. The unneeded items can be removed. The object is to get rid of the things that are not needed, such as waste, extra storage bins, material, tools and equipment.
2. Arrangement -- The practice of proper placement of parts, tools, equipment and materials in order to make the work site safe and efficient. This allows for orderly storage. "Everything in its place and a place for everything." Tools and equipment can be easily found, taken out and used again when they are needed.
3. Sweeping and Washing -- Keeping work sites free from safety hazards, oil and water spills and debris. The team leader will encourage his or her work site team to clean and wash the work site whenever necessary.

Q. It is the role of the team leader to encourage good attendance and impress upon the rest of the team to

be at work on time everyday.

R. Safety First - It is the responsibility of each team leader to practice safety on a daily basis. Each team leader must remember safety always comes first. Each team leader must strive to make safety at the work site a personal priority. He or she must perform their work site process in total safety. Unsafe work habits and attitudes will cause accidents. Various types of training and close cooperation of the total team will lead to developing means and methods of eliminating accidents.

Each member of the work site team must respect his or her fellow team members and strive to build a congenial work site atmosphere. All team leaders must participate in their team and group work site activities.

Inform and train all members on all new and existing health and safety policies and procedures, enabling them to perform their work duties safely.

Train team members on the safe operation of

every piece of machinery or equipment and the safe method or process of performing their duties.

Assist supervisors in ensuring team members perform their duties in compliance with OHSA and relevant legislation for industrial establishments.

Provide personal protective equipment to all team members. Monitor and enforce its use. Assist team members in implementing health and safety suggestions.

Promote the practice of occupational hygiene. Conduct weekly safety meeting with team members.

Training Methods

The team leader should make a commitment to training and develop the necessary skills to provide training in a progressive and effective way in proportion to the development of the team members' capabilities. The following tips should be used as a guide when planning the training:

1. Establish Objectives and Prepare The Way For Training -

   - Explain what is required from everyone

involved.

- Make sure that everyone has been given prerequisite training.
- Make sure the reason for doing the job in a particular way is explained as a means of providing motivation.
- Make sure that everyone feels comfortable with the training situation and is in the appropriate location to start the training.
- Give the responsibility for learning to the team members.

2. Explain the Complete Operation
   - Go over the steps of each operation and explain in detail what is required, making sure that everyone understands. Be patient.
   - Perform each of the tasks, showing clearly what has to be done and how to do it.
   - Place special emphasis on the key elements of the job.
   - Speak clearly and show enthusiasm for all aspects of the job.
   - Pay attention to detail. Don't assume that

anything is already known.

- Make sure that all tasks are within the capabilities of all of the team members.

3. Allow the Team Members to Practice the Operations

- Observe each of the operations carefully, correcting any mistakes as the operation progresses.
- Have each team member explain each step as it is being performed.
- Let each team member indicate the key elements of the task as it is being carried out.
- Ensure that everyone understands the importance of the key elements.
- Encourage questions about any aspect of the training (very important).

4. Follow Up On The Training

- Let everyone do the assigned tasks.
- Encourage everyone to help out if they see someone having difficulty.

- Keep a careful check on the progress of each team member.
- Encourage questions and suggestions about the job.
- Gradually reduce the level of guidance but be available to provide encouragement and help out in case of minor problems.

Leadership

The most important role of the team leader is to provide leadership to the team. Effective leadership should lead to:

- Achieving and maintaining the goals.
- Being able to counsel team members when appropriate.
- A motivated team with a feeling of accomplishment and satisfaction.

Tips for Effective Leadership

- Plan ahead and set clearly defined goals. Discuss these goals with the team and encourage input from them to establish a plan that is mutually agreeable to everyone.

- When giving directions, be clear, concise, and have empathy for the person to whom the directions are being given.
- Have respect for the independence of the individual and give them the responsibility for the given task.
- Provide leadership in all aspects of the job. Be fair and considerate, making sure that everyone has an equitable workload. Strive for an atmosphere in which everyone feels able and willing to make a contribution.
- Encourage and develop interpersonal relationships. Maintain close contact with your team. Be a good, effective listener and show appreciation regularly.
- Show that you are an integral part of the team and foster ways of improving the team spirit.
- Practice open communication, making sure that all the required information is passed on to each member. Keep your team informed of activities and events throughout the company.

- Provide constant feedback to each member of the team.
- Give constructive criticism as situations may dictate.

Chapter V

Discussion

Summary

The kindergarteners gleefully working in a classroom in the Goodrich School district near Flint, Michigan, may look like they are just making hamburgers, when in fact they are showing the basic difference between mass- and lean-production techniques.

In a fourth grade class a few miles away, students are dividing into teams, building "products" out of Legos and comparing "push" (mass production) versus "pull" (lean) production systems. With the "push" systems, they build products as fast as they can and wind up with lots of work-in-process inventory when the time runs out. With the "pull" system, they build components more slowly, and only when they're needed. Which is better? The pull system, of course. "You don't want to waste your money building something you don't use," says a fourth grader matter-of-factly.

At the junior high school level, students form into self-managed teams too, and among other things, design a

car on a computer and learn how a laser works.

Although it might sound like a stretch, this educational pilot program is part of team manufacturing, an ambitious but ill-defined and often misused buzzword aimed at making big, slow moving operations fast on their feet: enabling them to respond faster to change and continue to improve after they've wrung out all the possible benefits available from lean manufacturing.

A short but typically vague description comes from the management consultants at Deloitte & Touche in Detroit: "The ability to thrive in a competitive environment of continuous change and uncertainty."

Team manufacturing, at least according to some experts, is the simple idea of developing a highly educated workforce and forcing employees to use their brains as well as their hands to improve productivity.

But commercial hype and an army of consultants already have buried even this simple premise in sales pitches and flow charts.

Nevertheless, flaws in today's manufacturing systems are apparent everywhere. Try to custom-order a

car or truck today, for instance, and you're in for a nasty surprise: "It'll take an average of four to six weeks -- and maybe a lot longer.

Meanwhile, lots of good, ready-to-drive vehicles sit on the lot for months because they're not the right color, or don't have the combination of options people want. No matter how efficient your manufacturing operations are, working furiously to build products nobody wants just doesn't make sense. It's a concept any kindergartener can understand.

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Figure 2-1

An Example Of Developing The Team Mission Statement

Definition

- Team's reason for "being"
- Driving force for the team's actions

Critical Attributes

- Inspirational in nature, appeals to the team's "noble cause"
- Team assumes responsibility (ownership) for achieving the mission
- Focuses on the "bottom line" -- resulting in a significant return on the time and energy invested

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Figure 2-2

Helpers and Barriers to Team Involvement

Helpers	Barriers
Support by Top Management	Short Term Performance Pressure
Support by Middle Management	Lack of Long Term Stragegy
Availability of Resources	Unclear Objectives
Decentralization of Authority	Lack of Champion for Employee Involvement Program
Support by First-Line	Centralization of Decisions

SOURCE: Center for Effective Organization, University of Southern California (61).

Figure 4-1

Examples of Ground Rules

- Start and end on time
- Be prepared
- No agenda-no meeting
- Follow-through on assignments
- One meeting at a time
- Be open and honest
- Critique information not people
- Express your concerns
- Be an active participant