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Inside teamwork: An inquiry into the communication and action of self-directed work teams

Varner, Donna, Ph.D.
The Ohio State University, 1993

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INSIDE TEAMWORK: AN INQUIRY INTO THE COMMUNICATION AND ACTION OF SELF-DIRECTED WORK TEAMS

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of the Ohio State University

By

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* * * * *

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ACKNOWLEDGEMENTS

Certain people played supportive and generative roles in this venture. I sincerely appreciate their individual and collective contributions.

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CHAPTER I
INTRODUCTION

Recent interest in, and use of, self-managed work teams in a growing number of companies suggests a shift in the dynamics of the work place. As work teams begin to assume the functions previously held by managers, roles and relationships change. In the course of creating new relationships in the work place, people's perspectives, their actions, and their talk about who they are and what they do will shift as well. This study explores the communication of two work teams who are in the midst of these changes. The guiding assumptions of the research suggest that as people co-create their new work realities in their conversations, the way in which they communicate will make a difference in the actions and outcomes they generate (Bateson, 1979; Berger & Luckmann, 1966; Harmon, 1981; Weick, 1979). This research offers an alternative way of seeing self-managed work teams; that is, while the limited body of research on self-managed work teams has emphasized a broad range of interrelated variables influencing work team effectiveness (Cohen & Ledford, 1992; Hackman, 1986; Orsburn, Moran, Musselwhite, & Zenger, 1990; Pearce and Ravlin, 1987), this research focuses on the specific domain of the talk and action of teams.

A self-directed, or self-managed, work team is defined as a work group in which members working autonomously and interdependently, are completely responsible for producing a whole product or service (Cohen & Ledford, 1992; Manz & Newstrom, 1990; Orsburn, et al., 1990). When organizations implement self-directed work teams the change often means a radical shift in thinking for the entire organization; this shift may be one that moves the organization from hierarchical control and communication to sharing power and openly sharing information.

Much of the work of self-directing, and many of the benefits derived from self-managed work teams have been connected to the nature of communication patterns in the organization, in the group, and between individuals (Pearce & Ravlin, 1987). In particular, the flow of information to, from, and within teams is extremely critical to team success (Cohen & Ledford, 1992; Hackman, 1986; Orsburn, et al., 1990; Pearce
& Ravlin, 1987). Team members need information in order to learn how to perform their responsibilities and roles. And because the implementation of teams reconfigures roles within the organization, free flow of information is a must in order for new role relationships to be sustained.

Although the quality of communication can have a major impact on the outcomes associated with self-directed teams, few studies have focused on the communication that takes place within self-directed teams. Therefore, the intent of this study was to explore work teams from the inside, probing the general question, just what sort of communication occurs within work teams and what is its relationship to team action?

Statement of the Problem

This research inquires into the connections between how work team members talk and listen to each other, the actions they take, and the outcomes they achieve as individuals and as a group. Two "guiding hypotheses" express researcher conjectures about those connections (Marshall & Rossman, 1989). The first is that patterns of discourse can be observed that enable personal and collective action. The other is that when people enable each other through dialogue, they make available more information, more resources, more energy, and more choices, improving the chances of achieving desired outcomes. Their dialogue expands their space in which to act. Within this framework, particular attention is given to the discourse of the work teams, their core values, their patterns of communicative and collective action, and the achievement of desired outcomes. The following research questions guided the inquiry:

1. What patterns of discourse accompany the actions of the teams?
   a. How do people talk about the teams, the organization, their values, their tasks, their actions, the experience of being a team member, their desired outcomes?
   b. How do people talk to each other in action (on task)? How does this talk portray relationships, values, priorities, the group experience, desired outcomes?
   c. What common language, metaphors, or stories are used by team members in their talk?
2. What core values guide actions?
   a. What values are central in the organization?
   b. What values do team members espouse?
   c. What do actions convey about the core values of the teams?
   d. To what extent are the specific values of authenticity, safety, mutuality, community, and choice present in action?
   e. What tensions are present between values, and between values and actions? How are tensions resolved?

3. To what extent are feedback, listening, and self-disclosure evident in discourse?
   a. What other actions occur in conjunction with feedback, listening, and self-disclosure events?
   b. What actions precede and follow feedback, listening, and self-disclosure events?
   c. What changes in information, available resources, and group energy can be observed in relation to feedback, listening, and self-disclosure events?

4. How do team members go about taking action together?
   a. How do team members make decisions about task accomplishment?
   b. How do members choose the appropriate behaviors and techniques from their repertoire? How extensive is their repertoire?
   c. How do members recognize and use each other’s expertise?
   d. How do members characterize the level of trust in the group and in the organization?
   e. To what extent do members help each other learn?
   f. How do members decide when to assume a leadership role in the team and when to be a participant? How do members maintain balance between these roles?
   g. To what extent does the group reflect together on its actions and outcomes, challenge its decisions and actions, and revisit its core values in relation to decisions, actions, and outcomes?
   h. How do members describe the experience of acting collectively?
5. How effectively do the teams achieve what they set out to do?

a. How do members and non-members describe the desired outcomes of the team?

b. How do members describe their personally desired outcomes as team members?

c. To what extent are their tensions between the desired outcomes of persons and the team? How are these tensions resolved?

d. If teams have created synergy, how do members characterize it?

e. How do members characterize team effectiveness?

The Focus of the Study

The location for this study is Omsco, a manufacturing organization that has recently implemented high-performance work teams. Specifically, the study focuses on two self-directed work teams, comprising three shifts each in two plants. The teams are relatively small—eight men in Plant A, with two or three on a shift, and 13 men and women in Plant B, with four to five on a shift. The work force at Omsco is non-union.

Omsco has had a history of teamwork and associate involvement. Five years ago work improvement teams were implemented; these teams functioned similar to quality circles, but were intentionally not referred to as such. The recent implementation of self-directed teams extends that history. The older plant (referred to here as Plant A) piloted the idea of work teams for the company. The implementation of teams at the piloting plant was described as having "almost happened" on its own. The work group in this plant had worked for eight years with one supervisor on day shift and no supervisors on the other two shifts; members of the work group learned to self-direct out of necessity.

It was anticipated that the new plant (Plant B) would start up with a new team. Care went into the selection and training of the new team members. The team members were selected for their technical as well as teamwork ability; three "experts" on teamwork—team members from Plant A—were involved in the selection process. Some of the learnings from the Plant A team experience were used in starting up the new team, and an extensive team skills training program was developed. The training classes were given to both the existing Plant A team and the new Plant B team, and to the teams' facilitator (former supervisor of Plant A). The training was also offered to
support people (for example, raw materials procurement, shipping, engineering and research), for whom the work teams are "internal customers" and who now deal directly with team members. Plans were for everyone who had anything to do with teams to take this training, but during the research period, some key people had not done so.

In addition to having a very different history, the teams differ in many other ways. The teams are very different technically. While both plants use a computerized system, their products and processes are very different. Plant A produces single products using a continuous process; Plant B produces mixed products in batch runs. Plant A is an "internal supplier" of raw materials for Plant B. Team members rotate through the various tasks in both plants, however Plant B has a broader range of tasks than Plant A. The physical facilities of the two plants are similar in that both have a centrally located "control room" where the computerized system is monitored; however Plant A itself is much smaller than in Plant B.

The teams are also very different on a personal level. Plant A's team has a long length of service in the plant and 20 to 25 years with the company, while Plant B's team is younger, new to the plant and relatively new to the company. Plant A's members' common background of working together in the plant, contrasts with Plant B's diversity of members whose backgrounds were in other departments. With the Plant A team's longer history came some "baggage"—remembrances of inconsistencies or unfair treatment in previous jobs. Also different was the way in which the two teams became High Performance Work Teams; while the Plant B team members chose to bid for a job on a team, Plant A team members were told that they were going to become a High Performance Work Team.

The name, "High Performance Work Team" was given to the teams at the inception of the team concept. A year later the language was changed to "Self-directed Work Teams." The plant manager explained that change had been made because of the implication that the moniker, "High Performance Work Team," had regarding the performance of people who were not on the teams; the name was "a big thing to some people, and we wanted to respect that." There is other evidence of a deliberate use of language at Onasco. Employees had been called "associates" long before the term was a fad. Work Improvement Teams were never referred to as quality circles because management did not want them associated with any "gimmicks". The relationship
between the work teams and non-team groups is framed as a "customer-supplier" relationship—not as operators and support groups, or workers and management.

The unit of analysis of this research was the face-to-face encounter of persons in groups, with emphasis on the communication that surrounds the action. An encounter is a momentary (present) event. Face-to-face encounter refers to those events that are co-created moment by moment by persons in relationship. The face-to-face encounter represents the everyday experiences of group life, and provides access to the meaning and realities that participants create intersubjectively through language (Harmon, 1981). Attention to communication included non-verbal communication (communication beyond the spoken and written word), monologues, technical dialogues, and dialogue. Because dialogue embodies connection between people, attention to the dialogue in the face-to-face encounter enables the researcher to experience the moments in which meaning and action are co-created, simultaneously considering the impact on the persons as individuals and the group as a whole. In this study, locations in which face-to-face encounters were studied included formal team meetings, on-the-job interactions, team member conversations, informal interaction between team members and members of other organizational units, and training sessions.

The collective action of the work teams was of primary interest in this study. Face-to-face encounters are windows to collective action. The action of a group is a product of individual actors who make choices and interact with one another in accordance with their motives, meanings and intentions (Harmon, 1981; Silverman, 1970). Therefore, the study spans levels of analysis, with parallel foci on the collective action of the teams and the actions of the individual team members. As collective action produces outcomes, those outcomes affect both the team members and the team as a whole. In self-managed work teams, both group and individual phenomena occur simultaneously and influence each other (Hackman, 1986).

Methodology

The research used qualitative, or naturalistic, inquiry methods to inquire into the areas of interest (Lincoln & Guba, 1985; Marshall & Rossman, 1989; Patton, 1990; Reason, 1988). The desire to understand values, realities, and meanings at work in these particular teams, in view of their specific context, calls for the researcher to approach the issues from the inside. The choice of methodology was driven by its
responsiveness to this need, its coherence with the research problem, and the nature of
the questions asked. In addition, choice of methodology is a response to a call in the
literature for a research approach that can accommodate the complexity, the
equifinality, and the reciprocal relationships of self-directed teams (Hackman, 1986;
Weisbord, 1987). The structure of the design employed multiple triangulation
strategies to build credibility into the findings.

The approach to this inquiry is one of cooperation and involvement with all
participants. The research questions and the plan of the study have incorporated
questions raised by Omsco managers regarding feedback, listening, facilitation, and
the taking of leadership and/or participant roles by team members. Omsco's areas of
interest are served by the broader research interest in communication and
communicative action in work teams, and also contribute to the research by providing
a lens for inquiring into team discourse. The interconnection of Omsco participants
and the researcher through joint development of the inquiry exemplifies the
epistemological assumption that the "knower and the known" are interdependent;
knowledge is created through the interaction and mutual influence of all participants in
the inquiry (Lincoln & Guba, 1985). This perspective reframes the view of people in
the research setting from "subjects" to co-learners, co-researchers and co-creators of
knowledge.

Contributions of the Study

This study makes a significant contribution because it takes an insider's view
of self-directed work teams; that is, it looks at teams from the perspective of the team
members. Most of the literature presents models of, and procedures for implementing
self-managed work teams from a managerial perspective. Management is advised to
have the proper preconditions, design considerations, and support activities in place in
order to attain the benefits of self-directed teams (Cohen & Ledford, 1992; Orsburn, et
al., 1990; Pearce & Ravlin, 1987). Many of the models of effective teams exclude the
influential role of the individual team member in making it effective. This study
highlights some unique and human aspects of self-directed work teams and sheds
some light on how human factors, specifically team member talk and action, impact the
implementation of teams. The research focused on two "high performance work
teams" who shared the same organizational setting, the same training, some of the
same preconditions and design and structural factors, but who responded very
differently to being a team. The indication is that the values, the experiences, and the interactions of persons inside the team make a difference in its success. A contribution of this research then, is not only to address a missing dimension of the literature, but also to honor the influence of the human beings who make teams successful.

A second contribution of the research is to link together concepts that are not typically connected in the literature on self-directed work teams. Although information sharing plays a central role in work team success, connections between effective communication, core values, and dialogue as members of work teams share and act on information, have not been made. While some have suggested their relevance, interpersonal and intrapersonal phenomena in self-directed work groups have not been given a great deal of research attention (Pearce & Ravlin, 1987). This research demonstrates that such a focus yields many new and important insights into work team actions.

Third, this research contributes a fresh perspective on work groups because of its methodological approach. Many studies of group dynamics have been manipulations of narrow sets of variables under artificial conditions; scholars have repeatedly called for group studies using alternative research approaches that are able to consider the complexity of group life (Hackman & Morris, 1978; Steiner, 1974), and specifically for research on self-managed work teams that uses non-traditional methods, including action research (Hackman, 1986; Pearce & Ravlin, 1987; Weisbord, 1987). This study uses naturalistic methods that enabled researcher access to context, process, experience, and meaning (Harmon, 1981; Lincoln & Guba, 1985; Marshall & Rossman, 1989; Reason, 1988). The methodology also has the capability to access subjective experience, (Reason, 1988), as well as the capability to deal with the interdependence, equifinality, and synergy found in self-directed teams (Hackman, 1986). Using a non-conventional approach, the research probed levels of work group experience not typically explored, and captured the essence of the whole.

Finally, the research contributed to the knowledge base of work teams through the learnings that took place in the course of doing research. The researcher’s participant observer role placed her in the midst of the action; any conversations between researcher and team members became part of the discourse of the group. The learnings that took place in this discourse impacted the context then and there. In addition, as participants verified the accuracy of the researcher’s findings, those
findings prompted new thoughts and new learnings. In this sense the research met its objective of creating knowledge in and for action.

Delimitations of the Inquiry

Any description of an inquiry should also consider what that study is not. This study was not intended to explain any particular phenomenon common to work teams, or to predict work team behaviors given a set of circumstances, but rather, was exploratory in nature. As an exploratory study, this dissertation aimed to be open to what the team members had to say in regard to a particular research focus, and to the report the findings in a way that would prompt future learning and action, both for the team members and for the researcher.

This is a two-case study of self-directed teams in a computerized manufacturing plant. The two teams were vastly different from each other; each case has findings which are very specific to that team alone. Thick description has been used so that the findings are a rich source of information. Whether or not the findings for one team have any application for self-directed teams in other settings--be it another team in the manufacturing sector, a team in a service sector, or even the other team at Omsco--is for the reader to decide.

This dissertation focused on the talk and action of members of self-directed work teams. Although data collection captured the talk and action of members of management and support groups, I chose to concentrate on the team member's perspective of self-directed work teams. The words that were used to tell the stories, and the words from which the examples were drawn, were those of the team members. Interviews with, observations of, and documented information from the facilitator and other management and support people were used to contextualize and triangulate the findings, but their words were not reported as findings; the findings illustrate how team members alone talk about their teams, their roles, and their actions. Since the study did not explore how members of these other groups construct realities about the team, the study does not to address the management perspective on teams, nor it does portray the team from any point of view other than that of a team member.

The study does not account for the talk and action of team members other than those observed by the researcher, described by the participants, and read from documents. Private conversations between team members, as well as events that led up to the talk of which the researcher was a part, cannot be part of the data.
This dissertation focused on team member talk and action only; that is it did not focus on the technical aspects of the team other than to consider them as part of the context. Therefore factors that may well influence the team—for example, the production system, operations management, task structure, and technological interdependence between plants—were not included in the findings.

This study does not account for historical events, other than those cited by team members. Nor does it account for social, economic and political forces that may be at work in the setting. While the researcher acknowledges, and empathizes with, the influence of these broader issues on the context, they were beyond the scope of this study.

Overview of Chapters Two through Six

The essence of this research was an exploration into the talk and action of work teams from the inside, as a participant observer in work teams in a manufacturing setting. The following chapters will describe the research in detail. Chapter Two covers the background material that informed the study. It connects two bodies of literature—from the domains of self-directed work teams and small group communication—with an experiential knowledge base to form the foundation of the study. Chapter Three articulates the methodological issues of the research, including the rationale for using an interpretive approach to the study of self-directed work teams, and the details of the research strategy. Chapter Four presents the findings from the study of Plant B and Chapter Five presents the findings of Plant A. The findings chapters are written as two separate cases and are organized according to the meaningful themes that emerged from the data. Chapter Six presents the conclusions of the research, its implications for future research and its implications for practice.
CHAPTER II
BACKGROUND OF THE STUDY

This study draws from both a literature-based and an experientially-based body of knowledge. A review of relevant literature surfaced important concepts, and also prompted insights about concepts that could be elaborated further. Theory-building experiences engaged in prior to the present research provided experience with key concepts, as well as new insights for developing a conceptual framework for the research. Cycling back and forth between literature and experience proved valuable to ultimately developing the research plan. A discussion of these background resources follows.

Relevant Literature

Two research domains are linked in this literature review. First the research on self-managed work teams will be discussed. Then attention will turn to effective interpersonal communication in groups. While an extensive body of literature exists regarding groups, group performance, and group effectiveness (Goodman, Ravlin, & Schminke, 1987; Guzzo, 1986; Hackman, 1983; Hackman & Morris, 1975; Hill, 1982; Steiner, 1972), there is no intent here to cover the entirety of the groups literature. In a sense, the traditional groups literature is a separate domain from that of self-managed work teams. Several authors have asserted that fundamental differences exist between self-managed work teams and conventional work groups, including the extent of responsibility and control, the direction of communication, and the synergy generated in work teams (Buchholz, Roth, & Hess, 1987; Cohen & Ledford, 1992; Orsborn, et al., 1990; Pearce and Ravlin, 1987). Brief reference to traditional groups research then is not intended to minimize its importance, but rather to keep the literature review focused on issues most relevant to this research. The following review will highlight the body of literature on work teams, including the theoretical foundation and the distinguishing features of self-managed teams, and the importance of communication in the actions and outcomes of teams.
Work teams

Recently, American organizations have developed a strong interest in self-directed work teams. That interest has been generated by the consistent productivity improvements reported by teams in many different types of organizations both in the U.S. and abroad. A self-directed work team is a group of employees who are completely responsible for producing a well-defined unit of work (Orsborn, et al., 1990). In this work the terms self-managed work group/team, self-directed work team/group, high performance work team will be used interchangeably. It is acknowledged however, that some authors differentiate between these terms. For example, Hackman (1986) distinguishes between self-managed groups (the group executes the task, monitors and manages work processes and their performance; management designs the unit and sets direction), self-designing groups (management sets the direction but the rest is up to the group; the group executes the task, monitors and manages work processes and their performance, design or structure the unit), self-governing groups (the group executes the task, monitors and manages work processes and their performance, design or structure the unit, and decides what it is to do), and manager-led groups (the group executes the task only; managers do the rest). Others have used the term self-regulating works groups to convey the same meaning (Cummings, 1978; Pearce & Ravlin, 1987).

Distinguishing characteristics of self-managed work groups include interdependent work carried out through face to face interaction, a focus on a whole product or service, and self-regulation (Cohen & Ledford, 1992; Manz & Newstrom, 1990; Orsborn, et al., 1990). Self-managed work teams have discretion over decision making, which may include choosing work methods, scheduling, managing work flow, monitoring performance, and redesigning activities (Cherns, 1987; Cohen & Ledford, 1992; Hackman, 1986; Manz & Newstrom, 1990; Orsborn, et al., 1990).

Some of the ways that fully developed self-directed work teams differ from conventional work groups are in terms of the extent of responsibility and control, direction of communication, and synergy. Members of fully functioning self-directed work teams have control over the whole of their daily activities and share responsibility for the performance of the work group; in conventional groups, supervisors or managers typically are held responsible for the group's performance and so maintain control over group activities (Buchholz, Roth, & Hess, 1987;
Orsburn, et al., 1990). While some conventional groups such as quality circles, task forces, and committees may have control over specific assignments, they do so only on a limited and short-term basis, and may have been delegated their assignment by a supervisor (Pearce & Ravlin, 1987); by contrast self-managed groups initiate work assignments and determine their course of action. Open information flow to and from all levels sets self-managed teams apart from the downward communication typically found in conventional groups (Buchholz, Roth, & Hess, 1987; Orsburn, et al., 1990). While research on work groups has traditionally framed its questions in terms of group versus individual performance: "Are N + 1 heads better than one?" (Hill, 1982), the questions posed about self-directed work teams revolve around their potential for generating performance that is magnified in collective action: What happens in teams such that 2 + 2 = 5? (Buchholz, Roth, & Hess, 1987). This ability to achieve results in which the effect of their collective actions is greater than the sum of their individual actions is synergy, and is a distinguishing feature of high performing teams.

Theoretical foundation. The theoretical foundation of self-directed work teams is socio-technical systems (Cummings, 1978; Manz & Newstrom, 1990; Orsburn, et al., 1990; Trist, 1981; Trist & Bamforth, 1951). Sociotechnical systems theory argues that the social system (the people) and the technical system (the technology) should be matched. When the two are mismatched, people may be constrained from using the technical system to its full potential and may be more committed to self-interest than to system goals. When people and technology are complementary, both technical system efficiency and the full capabilities of people are realized simultaneously. The social component of a sociotechnical system is the more challenging, and often frustrating, part of implementation (Manz & Newstrom, 1990). The aspects of the technical system are more predictable, can be executed quickly, and are critical to the initial success of the team. By contrast, the social system is variable, complex, and slower to mature, but is essential to sustaining group successes over the long term (Hackman, 1986; Manz & Newstrom, 1990). According to sociotechnical systems theory, when the dimensions of the multi-faceted social system are addressed and aligned with the technology and the task, a team will produce the technical outcomes of high productivity, flexibility and quality, and the social outcomes of commitment and satisfaction (Manz & Newstrom, 1990; Orsburn, et al., 1990; Trist & Bamforth, 1951).
Sociotechnical systems reframe the mechanistic/bureaucratic perspective of people in the workplace (Trist, 1981). Attention shifts from parts to whole. The emphasis is on the work system (the group) rather than single jobs. People act interdependently rather than independently; instead of holding individuals responsible for performing a single simple task, groups are responsible and accountable for a whole unit of work. The redundancy designed into the system also reflects the movement from parts to whole. Sociotechnical systems are designed with redundancy of function (individuals develop multiple skills so as to increase the repertoire of the group as a whole), rather than redundancy of parts (the work is broken down into simple, specialized parts that are easily replaceable; control is achieved by adding more parts). Internal control of the system is advocated over external control. Emphasis on prescribed work roles or rigid procedures is replaced by the use of discretion; people may choose various strategies to achieve a desired outcome. Emphasis is on increasing the variety within the system, rather than decreasing it. With less standardization, there are more degrees of freedom for both people and the system to respond to present needs, to develop potential, create new patterns of action. Trist (1981) argued that adopting the sociotechnical perspective requires a paradigm shift. The implementation of self-managed teams may represent a "fundamental change of life-style" for the organization; for example, values, level of trust, willingness to share information, and management styles and beliefs deeply embedded in the system may turn out to be incompatible with the philosophy surrounding self-managed teams (Orsborn, et al., 1990).

The effectiveness of sociotechnical systems has been attributed to a holistic perspective that coheres and aligns persons, groups and tasks (Trist & Bamforth, 1951), to self-regulation that allows for control of more variance (Trist, 1981), to autonomy and the freedom to choose the best course of action (Cummings, 1978; Trist, 1981), to continuous learning that increases competencies and broadens decision space (Trist, 1981), and to the group's development of processes that allow them to become self-sustaining, enabling them to work together interdependently on an ongoing basis (Hackman, 1986).

Recent research. The body of recent research conducted specifically on self-managed work teams is small. Much of what we know about self-managed work teams has been developed in practice (Buchholz, et al., 1987; Orsborn, et al., 1990), and through case studies (Cohen & Ledford, 1992; Pearce and Ravlin, 1987). While
it is generally held that self-managed work teams enhance productivity, quality, commitment, and satisfaction, studies of self-managed work teams have been criticized for their inability to produce conclusive findings (Cohen & Ledford, 1992; Pearce and Ravlin, 1987). Hackman (1986) argued that the inconclusiveness is a result of the use of traditional research methods. Because self-managed work teams are complex systems in which multiple courses of action and multiple outcomes are possible, and in which variables reciprocally influence each other, attempts to demonstrate causal linkages when multiple linkages are likely may frustrate the conclusiveness of the research; in addition, attempts to isolate key variables for study may result in those variables appearing less meaningful than if all variables were considered in as a whole.

The extensive number of variables and multiple relationships are evident in reviewing what has been written on self-managed work teams. The following review pulls together some common threads in the literature. Included in the review are findings drawn from practice (Orsburn, et al., 1990), a review of empirical work on work groups (Pearce & Ravlin, 1987), and findings from a quasi-experiment from a large field study (Cohen & Ledford, 1992). Additionally, other works on self-managed work teams that support and elaborate on the factors presented in these three models are used as well. The following review clusters the variables found in the literature into five groupings which recur across numerous works. First, there seems to be some agreement that self-managed work team effectiveness is manifested in several key outcomes; in addition, there is also some agreement that to achieve those outcomes, certain preconditions, structural or design factors, practices or implementation factors, and processes are important. Other authors have grouped the variables in different ways according to their needs; the intent here is not to diminish the integrity of other models, but rather to convey the essence of the critical factors affecting work team dynamics. Each category is discussed in turn; the entire discussion is summarized in Table 1.

**Outcomes.** There is general agreement in the literature that self-managed teams are desirable because they are associated with increased productivity (Cohen & Ledford, 1992; Orsburn, et al., 1990; Pearce & Ravlin, 1987). In addition, other outcomes attributed to work teams include increased commitment to goals (Orsburn, et al., 1990; Hackman, 1986); enhanced quality (Orsburn, et al., 1990); improved quality of working life, including member job, growth need and social need satisfaction (Cohen & Ledford, 1992); and alignment of personal and collective
objectives (Hackman, 1986); client satisfaction (Orsbum, et al., 1990; Hackman, 1986); streamlining of the organization (Orsbum, et al., 1990); flexibility (Orsbum, et al., 1990); improvements in absenteeism, turnover, and safety (Cohen & Ledford, 1992; Pearce & Ravlin, 1987); and synergy (Buchholz, et al., 1987). The desire to generate these outcomes has prompted researchers and practitioners to inquire into preconditions, design factors, techniques and practices, and processes that are found in effective teams.

**Preconditions.** There seems to be some agreement in the literature that certain preconditions must exist before an organization begins to consider using self-managed teams (Orsbum, et al., 1990; Pearce & Ravlin, 1987). According to these authors, self managed teams are a viable option if certain predispositions exist regarding organizational leadership, potential team members, the organizational context, and the nature of the task. Those carrying out the leadership of the organization would have a commitment to the concepts and beliefs underlying self-managed teams, and share the belief that the organization will benefit (Manz & Newstrom, 1990; Orsbum, Moran, Musselwhite, & Zenger, 1990; Pearce & Ravlin, 1987). In addition they would be willing to take the risks that come with restructuring into teams. Movement to self-managed teams changes management roles; managers would be willing to accept those changes (Orsbum, et al., 1990). Those who would be team members would have the desire for autonomy and responsibility and would view additional responsibility as positive (Pearce & Ravlin, 1987). Potential team members would be willing to risk taking on new and different roles (Orsbum, et al., 1990). Factors in the organizational context that would make work teams viable include organic organizational structure (Cummings, 1978); management-employee trust, availability of time and resources, willingness to take on the financial risk of restructuring, commitment to training, access to help from experienced advisors and practitioners, union participation (Orsbum, et al., 1990); and appropriately defined expectations for the teams (Pearce & Ravlin, 1987). Of major importance is a commitment to information flow; organizations would demonstrate a willingness to open communication channels, and a willingness to share information necessary for teams to carry out new roles (Orsbum, et al., 1990; Pearce & Ravlin, 1987). The tasks that would be carried out by teams would be complex enough to continue to offer challenge to team members, beyond the initial start-up challenges. The task would present ongoing opportunities to exercise autonomy, to learn new skills, and to contribute in new ways (Orsbum, et al., 1990;
Pearce & Ravlin, 1987). In addition, the task would be meaningful at the group level; that is there would be an apparent rationale to having the task completed by a group (Pearce & Ravlin, 1987). If the organization and its people are ready for self-managed teams in the sense that these preconditions are present, a number of variables come into play with regard to design, implementation, and sustaining processes of self-managed teams.

Design factors. Factors that relate to the design and structuring of teams refer to activities and structures that can or should be built into the system in order to facilitate work team effectiveness. Activities can be designed into both the overall organization and the structure of the team itself to enhance the possibility of success. Training would be a primary focus in organizations implementing work teams; teams need not only technical skills, but also decision making, administrative, and interpersonal skills, to carry out their new responsibilities (Cohen & Ledford, 1992; Cummings, 1978; Hackman, 1986; Orsburn, et al., 1990; Pearce & Ravlin, 1987). In order to support the desired behaviors in work teams, performance measures that are relevant to team responsibilities (Cummings, 1978), and reward systems that reward performance as a group, and as an individual (Buchholz, et al., 1987; Cohen & Ledford, 1992; Cummings, 1978, Hackman, 1986; Pearce & Ravlin, 1987), have been recommended. Organizing for interdependent work flow is also seen as essential. Recommendations include structuring information flow for ease of access to information necessary to carry out team responsibilities (Cohen & Ledford, 1992; Hackman, 1986); planning for frequent team meetings that enable information flow, decision making, task accomplishment (Buchholz, et al., 1987; Orsburn, et al., 1990); building in coordination mechanisms that allow for "just-in-time" decision making (Pearce & Ravlin, 1987); and ensuring that there are adequate material resources (Hackman, 1986). Design issues to be addressed regarding the work groups themselves include heterogeneous composition, in terms of knowledge and skills (Hackman, 1986; Pearce & Ravlin, 1987); a membership that wants additional responsibility and has the ability to learn new skills (Orsburn, et al., 1990); a job design that motivates (Cohen & Ledford, 1992; Hackman, 1986); autonomy over task assignments (Pearce & Ravlin, 1987); roles and norms that promote teamwork, and incentives to violate old norms (Hackman, 1986; Pearce & Ravlin, 1987); work processes that are compatible with teamwork; and that can be enhanced by cooperation (Orsburn, et al., 1990).
Implementation factors. Factors relating to implementation include practices needed to enhance work team effectiveness. Many of these emerge from design factors, such as when new skills and techniques are implemented as a result of training; others represent new sets of behaviors to be learned in action. Management practices that influence self-directed team dynamics include articulating a clear vision to provide purpose and direction (Hackman, 1986); publicizing top management support through use of written communication, such as newsletters and memos (Pearce & Ravlin, 1987); and developing awareness of the stages of team development, thereby enabling a choice of coaching or evaluative action appropriate to each stage (Buchholz, et al., 1987; Cummings, 1978; Pearce & Ravlin, 1987; Orsburn, et al., 1990). Certain supervisory behaviors that generate open communication, enable self-direction and facilitate task accomplishment have been recommended. These include modelling behaviors that encourage open communication, encouraging group decision making (Buchholz, et al., 1987); taking a hands-off stance that allows member involvement (Cohen & Ledford, 1992; Orsburn, et al., 1990); empowering members to control variance (Cohen & Ledford, 1992); providing group with clear boundaries in which to exercise their discretion (Cummings, 1978); assisting team members in acquiring the necessary knowledge and skills (Buchholz, et al., 1987; Cummings, 1978); and reducing environmental uncertainty at group boundaries (Cummings, 1978). Some intra-group practices have also been encouraged. These include frequent team meetings (Orsburn, et al., 1990); consensus decision making (Buchholz, et al., 1987); effective facilitation behaviors in team meetings, and adequate participation and preparation for meetings (Buchholz, et al., 1987); self-selection of group members (Cummings, 1978); minimizing status differences (Pearce & Ravlin, 1987).

Processes. Finally, factors reflecting underlying beliefs, attributes, and ways of being in action relate to the processes necessary to sustain effective team dynamics. A climate of trust is often cited as an imperative that enables self-managed teams to succeed and sustain (Buchholz, et al., 1987; Cummings, 1978; Manz & Newstrom, 1990; Orsburn, et al., 1990). Open communication is seen as critical to sustaining effective team interaction, not only because it is central in building trust (Buchholz, et al., 1987), but also because it contributes to coordination by allowing information to flow as needed, and because it enables more ideas to be available for group decision making (Pearce & Ravlin, 1987). Trust and communication are strengthened through management and organizational support. Some have called for an executive who
champions the self-managed team cause through beliefs that team members desire responsibility, and are capable of autonomy and cooperation. Champions not only promote self-managed team values in conversation, but also demonstrate that belief system, by "walking their talk" (Manz & Newstrom, 1990; Orsburn, et al., 1990). Others have noted the importance of a supportive organizational culture that encourages interpersonal openness, experimentation, trust, risk-taking, cross-functional support, and willingness to share information (Cummings, 1978; Orsburn, et al., 1990). Finally, a number of attributes of high performing work teams have been cited, including shared responsibility and shared purpose, a view of change as an opportunity, and development and application of creativity (Buchholz, et al., 1987). These process variables represent the factors that are ongoing as work teams are enacted, and consequently contribute to sustaining self-managed teams in action.

The above paragraphs present an overview of the important issues and variables found in the literature with regard to the dynamics of self-directed work teams, including precipitating conditions, design and implementation factors, actions and processes, and outcomes of self-managed work teams. This general "state of the literature" is summarized in Table 2.1.

Table 2.1 - Factors in Self-managed Work Team Dynamics

OUTCOMES
- Increased productivity (Cohen & Ledford, 1992; Orsburn, et al., 1990; Pearce & Ravlin, 1987).
- Increased commitment to goals (Orsburn, et al., 1990; Hackman, 1986).
- Improved quality of working life, including satisfaction and goal alignment (Cohen & Ledford, 1992; Hackman, 1986).
- Streamlining (Orsburn, et al., 1990).
- Flexibility (Orsburn, et al., 1990).
- Improvements in absenteeism, turnover, and safety (Cohen & Ledford, 1992; Pearce & Ravlin, 1987).
- Synergy (Blake, Mouton, & Allen, 1987; Buchholz, Roth, & Hess, 1987).

PRECONDITIONS

Predispositions of organizational leadership.
- Willingness to take the risk of restructuring and its impact on role change (Orsburn, et al., 1990).
Table 2.1 (continued)

Predispositions of potential team members.
Desire for autonomy and responsibility; additional responsibility is viewed as positive (Pearce & Ravlin, 1987).
Willingness to take risks of taking on different roles (Orsbum, et al., 1990).

Predispositions in the organizational context.
Commitment to information flow (Orsbum, et al., 1990; Pearce & Ravlin, 1987)
Commitment to training (Orsbum, et al., 1990).
Availability of time and resources (Orsbum, et al., 1990).
Willingness to take the financial risk of restructuring and innovation (Orsbum, et al., 1990).
Appropriate and defined expectations for teams (Pearce & Ravlin, 1987).
Access to help from experienced advisors, practitioners, etc (Orsbum, et al., 1990).
Union participation (Orsbum, et al., 1990).
Organic organizational structure (Cummings, 1978).

Nature of the task.
Complexity of task presents ongoing opportunities for exercise of autonomy, for learning, for new contributions (Orsbum, et al., 1990; Pearce & Ravlin, 1987).
Meaningfulness of task at the group level (Pearce & Ravlin, 1987).

DESIGN & STRUCTURAL FACTORS

Organizational context
Continuous training on decision making, administrative, and interpersonal skills, as well as technical skills, needed to perform team responsibilities (Cohen & Ledford, 1992; Cummings, 1978; Hackman, 1986; Orsbum, et al., 1990; Pearce & Ravlin, 1987).
Performance measures relevant to team responsibilities (Cummings, 1978).
Reward system that rewards performance as a group, and as an individual (Buchholz, et al., 1987; Cohen & Ledford, 1992; Cummings, 1978, Hackman, 1986; Pearce & Ravlin, 1987).
Information flow that allows access to information necessary to carry out team responsibilities (Cohen & Ledford, 1992; Hackman, 1986).
Team meetings that facilitate information flow, decision making, task accomplishment (Buchholz, et al., 1987; Orsbum, et al., 1990).
Coordination mechanisms that allow for "just-in-time" decision making (Pearce & Ravlin, 1987).
Adequate material resources (Hackman, 1986).

Group context
Heterogeneous composition, in terms of knowledge and skills (Hackman, 1986; Pearce & Ravlin, 1987)
Job design that motivates (Cohen & Ledford, 1992; Hackman, 1986).
Autonomy over task assignments (Pearce & Ravlin, 1987).
Roles and norms that promote teamwork; incentives to violate old norms (Hackman, 1986; Pearce & Ravlin, 1987).
Work processes that are compatible with teamwork; can benefit from cooperation (Orsbum, et al., 1990).
Table 2.1 (continued)

Members want additional responsibility and have the ability to learn new skills (Orsburn, et al., 1990).

PRACTICES & IMPLEMENTATION FACTORS

Clear vision that provides purpose and direction (Hackman, 1986).

Publicized support from management levels using written communication (Pearce & Ravlin, 1987).

Supervisory behaviors that encourage and enable effective communication by modelling it (Buchholz, et al., 1987).


Supervisory behaviors that facilitate successful task accomplishment through clarifying, advising, and managing boundaries (Buchholz, et al., 1987; Cummings, 1978).


Consensus decision making (Buchholz, et al., 1987).

Effective use of team meetings (Buchholz, et al., 1987).

Self-selection of group members (Cummings, 1978).

Minimal status differences (Pearce & Ravlin, 1987).

SUSTAINING PROCESSES / ACTION DYNAMICS


Shared responsibility (Buchholz, et al., 1987).

Shared purpose (Buchholz, et al., 1987).

Supportive organizational culture (Cummings, 1978; Orsburn, et al., 1990).


Team members view change as an opportunity (Buchholz, et al., 1987).

Development and application of creativity (Buchholz, et al., 1987).

The centrality of communication. While the success of self-managed teams is created in action through the continuous interplay of all of the above factors, the review brings to light the central role that communication plays in work team effectiveness. To a large degree, the extent of the benefits derived from self-managed work teams revolves around the nature of communication patterns in the organization, in the group, and between individuals (Pearce & Ravlin, 1987). Two themes surfaced throughout the above review and are influential in the present research. One is that it is critical that teams and team members have access to all of the information they need to do their jobs (Cohen & Ledford, 1992; Hackman, 1986; Orsburn, et al., 1990; Pearce & Ravlin, 1987). The other is that the creation of open communication is essential to
maximum information flow, and also generates and sustains the trust and synergy that set effective self-directed teams apart (Blake, Mouton, & Allen, 1987; Buchholz, et al., 1987; Cummings, 1978; Orsburn, et al., 1990; Pearce & Ravlin, 1987).

Access to information is critical in view of the reconfiguration of responsibilities that takes place in self-directed work teams. Members of self-managed teams take on both technical and social responsibilities previously charged to other positions and other levels. Team members eventually have discretion over task-related activities that were formerly reserved for persons at the management level, such as choosing work methods, scheduling, monitoring work flow, working with internal and external suppliers, and planning. In order to effectively execute these responsibilities, they must have access to the same technical, financial, and marketing data and strategic plans previously shared with their managers. Team members develop a repertoire of skills needed to produce their product or service; this is often done by members training each other in their area of expertise. As team members take over decision making responsibility, they facilitate team meetings and lead team activities. Team members also take on personnel responsibilities formerly reserved for management; teams select, evaluate, discipline, and terminate their members. Training responsibilities, leadership responsibilities, and interpersonal responsibilities require that team members not only learn to share information, but also learn how to share it effectively.

The above review pointed out certain design and implementation factors intended to foster effective and open communication. For example, building in programs for extensive training, supporting frequent team meetings with time and resources, developing norms encouraging information sharing, minimizing status differences, practicing consensus decision making, learning and using facilitation skills, and encouraging participation and involvement, and modeling information sharing behaviors, all contribute to creating a context for open communication to occur. "Open communication" refers to communication that is nonjudgmental, honest, empathic, mutually respectful. Open communication is an ongoing process, co-created in interaction; the degree of openness of communication is associated with the willingness to share information, to listen to it, and to act with others. Open communication fosters a higher level of trust, enables non-defensive responses and prompts a willingness to share their ideas, (Buchholz, et al., 1987).
The next segment of this review focuses on the notion that open communication is a critical process in self-directed work teams, specifically in terms of communicative actions that contribute to open communication, and how open communication can be generative in terms of work team action. It develops further the theme that open communication is a team's source for maximum information flow, trust and synergy.

Effective communication for action

Three communicative actions contribute to effective and efficient communication in face to face interaction. Effective use of feedback, listening, and self-disclosure help group members to uncover their resources and channel their energy productively (Rosenfeld, 1988). This section discusses each action and its importance to work groups, then demonstrates how the three actions together enhance work team effectiveness. The literature provides many guidelines for observing behaviors and attributes that are associated with effective feedback, listening, and self-disclosure. These are noted here and will be used later to guide data collection and analysis (See Appendix A).

Feedback. People receive feedback from self, from the task, and from others. Since this study emphasizes face-to-face encounters in groups, the kind of feedback of interest here is feedback from others: the verbal and nonverbal response we get from others about our behavior, in regard to how it affects them and how it affects our performance in the work setting (Gudykunst, 1991). Feedback is a mechanism by which persons can get information needed to modify their behavior, and to enhance their personal development. Feedback and its counterpart, listening, are key contributors to effective interpersonal communication in work groups. Feedback can contribute to work group performance because it provides information about how group member behaviors affect goal attainment, and proposes specific changes or enhancements in member behaviors towards that end (Haslett & Ogilvie, 1988).

Feedback can be observed in work groups in both planned and spontaneous activities. Work group meetings, meetings with management to discuss progress toward performance goals, and performance appraisals are typical settings for giving and receiving feedback. Feedback can also occur spontaneously as people interact in the course of working towards their desired outcomes. Observing the feedback that emerges from the work place discourse is particularly critical in view of the fact that
work team members, by assuming the responsibility for the success and support of the team, must engage in giving and receiving one-on-one feedback on-line (Orsborn, et al., 1990).

Observation of feedback in work groups is aided by numerous collections of guidelines for creating effective feedback that exist in the literature (Anderson, 1976; Haslett & Ogilvie, 1988; Lippitt, 1982). Typically, researchers have concerned themselves with three aspects of feedback—the message (the feedback itself), the source (the sender or giver of the feedback), and the receiver of the feedback (Haslett & Ogilvie, 1988). The sender of the feedback must be concerned with not only the presentation of the feedback itself, but also how s/he responds to the receiver as a person (Gudykunst, 1991; Lippitt, 1982). Fewer guidelines for receiving feedback are found in the literature, however Lippitt (1982) suggested that the receiver can take an active role in facilitating and enhancing openness in and effectiveness of feedback. An important responsibility of the receiver is to actively listen; the next section will deal with listening skills in depth. In view of the interplay between sender and receiver, effective feedback can also be construed as being co-created by senders and receivers. Lippitt (1982) conceptualized the effective giving and receiving of feedback as a process of reciprocal trust-building, in which the goal is "leveling"—being open to revealing more of one's self so that understanding is increased between senders and receivers of feedback. (The contribution of self-disclosure to effective communication will be discussed later.) By committing effort to effective communication, all parties in a feedback event can co-create a quality of feedback that is respectful, mutually understood, and instrumental in achieving group and personal goals. Others have proposed guidelines that conceive of the interplay between feedback and listening, and between senders and receivers, as a generative source for new action (Stewart & Thomas, 1990, in Gudykunst, 1991).

Listening. Listening is the complement to feedback. Effective listening occurs when a person takes responsibility for his/her role as communication receiver by committing to receiving accurately the complete message of the sender (Kelly, 1982). This responsibility is undertaken on several dimensions. First, the effective listener looks inward at his/her listening habits and the perceptions, assumptions, and evaluative inclinations that filter the incoming message, and actively engages in constructive listening behaviors (Kelly, 1982; Steil, 1979). Second, the effective listener looks outward at self in relation to other in the communication process, and
respectfully engages in the feelings, perceptions, and meanings of sender, without judgment. The effective listener is empathic; that is s/he attempts to view the world through the eyes of the other and communicate understanding of the sender and his/her message (Egan, 1973). Finally, the effective listener simultaneously looks inward and outward, and attends to the communication process that is co-created by the listener and the sender. Beyond actively and empathically listening to the other party's feelings and message, the dialogic listener attempts to understand the process going on between the parties, the meaning being created, and the generative potential of the communication process (Stewart & Thomas, 1990).

Effective listening is a whole person-to-whole person experience. The listener must be highly aware of his/her full range of responses to the speaker, and at the same time be aware of all of the cues, verbal and nonverbal that the speaker is sending. In addition, the listener must be sensitive to how the two whole beings are responding to the responses of each other (Egan, 1973). Effective listening is considered to be a difficult but critical part of creating communication effectiveness (Gudykunst, 1991; Steil, 1979). Several collections of recommended behaviors for effective listening exist in the literature (Kelly, 1982; Kolb, Rubin, & McIntyre, 1984; Rogers, 1980; Steil, 1979).

Self-disclosure. Self-disclosure is an act of interpersonal communication that contributes to building relationships within the group and accomplishing group tasks through increasing the amount of information available to the people in relationship (Rosenfeld, 1988; Steele, 1975; Stewart, 1982). Self-disclosure is the act of intentionally revealing to others who one really is (Rosenfeld, 1988). In disclosing one's true self to another, the person shares information that is exclusive to that person, such as feelings, assumptions, choice-making, reflections, and that would not be accessible to the other without the sharing (Powell, 1969; Steele, 1975; Stewart, 1982).

Disclosure has beneficial implications for self-directed work teams. First, when group members disclose to each other, they learn how they are similar, learn the extent of their differences, and learn of each other's needs and resources. Self-disclosure reduces uncertainty in the group, and contributes to open and effective communication (Jourard, 1971; Rosenfeld, 1988). Secondly, disclosure enables collaboration. People cannot collaborate unless they know each other (Jourard, 1971). As team members uncover their similarities and differences through mutual disclosure,
they find the avenues for and barriers to building collaborative relationships. Third, disclosure in work groups releases member energy for collaborating on and completing the tasks and for sustaining the team (Rosenfeld, 1988). Fourth, disclosure generates information. One person's disclosure evokes self-disclosure in others; (Powell, 1969; Rosenfeld, 1988). Disclosing persons may generate a spiral of disclosure and trust that enables the release of valuable information and personal resources for use in group task accomplishment, problem-solving and strategy. Finally, disclosure reciprocity enables self-directed teams to be self-sustaining; that is, team members co-create and re-create their way of being through their ongoing stream of open dialogue.

The puzzle of self-disclosure is that it holds a wealth of resources for groups yet often goes untapped. Disclosure is considered risky; in revealing one's self a person may fear rejection or ridicule by others, loss of self-worth, loss of control and influence, and damage to relationships (Rosenfeld, 1988; Steele, 1975; Stewart, 1982). People are not likely to disclose unless they feel these risks are low. Disclosure occurs in groups when group members to agree to make it a part of group process (Rosenfeld, 1988). In inquiring into how work teams approach and enact self-disclosure, factors that lead to disclosure and the nature of disclosure that is practiced in the group will be considered.

Several authors have proposed that certain predispositions and context factors precipitate self-disclosure (Jourard, 1971; Rosenfeld, 1988; Steele, 1975). If a work team chose to include disclosure in its communication patterns, it might first look inward to see if conditions exist which foster disclosure. The predisposition to disclose is influenced by perceptions of self as honest and open, perceptions of the receiver as trustworthy and a good listener, a view of self as a changing, growing being, and a quest for personal information to aid in that growth. Group settings that encourage disclosure have been observed to minimize the risk of disclosure; a "disclosure climate" is prompted by history and norms that support disclosure, trust, cohesiveness, and the ability of members to effectively listen (Steele, 1975).

Members make the choice to disclose in a climate of trust, safety, and commitment to developing the working relationship of the group. Self-disclosure can be observed in work groups in terms of the disclosure itself, the number of incidents of disclosure, the breadth of the topics disclosed, the degree of intimacy of the
disclosure, reciprocity, and patterns of disclosure that emerge across time (Powell, 1969; Rosenfeld, 1988; Steele, 1975).

**A communication triad.** Effective use of a communication triad that includes feedback, listening, and self-disclosure generates energy and creates new spaces for effective group action. Rosenfeld (1988) illustrated this by using the concept of the "Johari window" (See Figure 2.1). The Johari window is an area representing all that there is to know about a person. The area is divided into quadrants: the open quadrant, or "arena" which contains information which is known to the self and known to others; the "hidden" quadrant containing information which is known to the self but not to others; the "blind" quadrant containing information, which is not known to the self but known to others; and the "unknown" quadrant containing information which is which is not known to the self or to others.

<table>
<thead>
<tr>
<th>KNOWN TO SELF</th>
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<td>KNOWN TO OTHERS</td>
<td>OPEN (ARENA)</td>
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<tr>
<td>NOT KNOWN TO OTHERS</td>
<td>HIDDEN</td>
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**Figure 2.1 - The Johari Window**

In the "arena", interaction is comfortable, efficient and effective; little energy is required because information is shared and understanding is mutual. Communication effectiveness is improved when people expand their arenas. Two ways of expanding one's arena are by engaging in self-disclosure, (decreasing the "hidden" area), and by increasing one's receptiveness to feedback (decreasing the "blind" area). In both cases, listening skills are critical to connecting people and sustaining trust. When people in face-to-face interaction employ these communicative actions, more information becomes available to the relationship, understanding grows, and the energy previously used to withhold the information is used in more productive ways. The communication repertoire of people who wish to create productive relationships
includes feedback and listening skills, and the willingness to self-disclose (Rosenfeld, 1988).

Through their open communication and concurrent mutual respect and and trust, self-directed work teams generate the synergy that is one of their hallmarks (Blake, et al., 1987; Buchholz, et al., 1987). Synergy is the team's ability to achieve results in which the effect of their collective actions is greater than the sum of their individual actions. Synergy enhances team effectiveness by releasing additional, collective energy in action (Blake, et al., 1987; Buchholz, et al., 1987). When acting synergistically, team members access and share information, energy and resources, such that they can co-create greater outcomes than they could produce alone. The synergy generated in high performing work teams has been depicted as an important difference that makes a difference in the results they produce (Buchholz, et al., 1987). The emphasis on communication in self-directed work teams then is not only aimed at creating information flow, but also at generating ongoing processes that mobilize and and focus human energy that would otherwise go untapped.

In summary, three communicative actions—feedback, listening, and self-disclosure—when practiced by team members create a context for effectiveness in self-managed work teams. These actions free up energy, build trust, prompt improved individual performance, promote collaboration, give access to resources. It is as if the group has enlarged its action space by opening it up and removing barriers, by making more resources and more courses of action available, and by enabling better informed choices about actions. Consequently, teams have more degrees of freedom to self-manage. With a well-developed communication repertoire, team members have the basis for generating and sustaining the actions that produce the outcomes that distinguish self-managed work teams.

Using effective communication in work teams: Activities and roles

Critical roles shared by team members activate effective group communication. In observing information sharing activities that are critical to team success, such as team meetings, training sessions, or on task interactions, the roles of facilitator, leader, and participant become central to the communication processes of the team. The facilitator role exists specifically to keep group process moving in an open way. The role of the leader refers to anyone who takes charge of a particular activity in the life of the team. The participant role refers to those who are contributing to the team's action, while not serving in the leadership role. While these roles may overlap, there are
certain skills associated with each that are grounded in effective communication. The roles and their associated skills will be discussed next.

Facilitation. A critical point at which information is shared is in the team meeting (Rees, 1991). While team members may sometimes perform task functions alone, the team meeting is a place where the members function as a collective, not only sharing information, but also solving problems, making decisions, and creating (Buchholz, et al., 1987; Rees, 1991). As members share stories, experiences, ideas, and goals the group is strengthened, as it accumulates a larger pool of knowledge and resources. As such meetings can be generative and have the potential to create great synergy. Whether or not this happens depends to a large extent on the way the process is managed (Buchholz, et al., 1987; Kayser, 1990; Rees, 1991). So for teams, the role of facilitator, as leader of group process, becomes a critical one. The facilitator must practice, elicit, and support effective communication.

A person who acts in the role of facilitator of a work team guides group process. A group facilitator acts as a steward of group dynamics, charged with ensuring that the team's discussions flow according to agreed upon procedures, norms and agenda (Plunkett & Fournier, 1991). A facilitator acts as a helper who assists team members in learning essential work team skills, such as collaborating, communicating and facilitating (Heron, 1989; Orsburn, et al., 1990; Warishay, 1992). A facilitator acts as a counselor who may help resolve interpersonal conflicts, clarify roles, advise novice teams on appropriate actions (Heron, 1989; Orsburn, et al., 1990). A facilitator acts as an overseer of the decision making process, ensuring that members are enabled to fully contribute to decision making (Orsburn, et al., 1990).

The guidance that a facilitator gives to the group depends on the situation, the tasks or issues at hand, and the level of development of the group and its members (Heron, 1989; Reason, 1988). The facilitator's task is complex; effective facilitation builds on two critical factors. First, the facilitator of a work team must be well-trained in a range of facilitation techniques, including interpersonal skills, group decision making processes, team structures, and effective communication (Orsburn, et al., 1990). Second, after developing a repertoire of techniques, the facilitator must be skillful at choosing the appropriate actions for the moment, and must then have the agility to move between techniques from moment to moment as needed (Heron, 1989). Observations of facilitation skills, then, not only will consider what skills are being used, but also will consider the context in which the skills are being applied.
The literature on facilitation proposes characteristics and behaviors that can be observed in effective facilitators (Heron, 1989; Kayser, 1990; Orsbum, et al., 1990; Plunkett & Fournier, 1991; Warihay, 1992). A compilation of those behaviors and attributes can be found in Appendix A. These facilitator behaviors are most effective when matched to stages of team development, the particular circumstances, and the people involved. Heron (1989) suggested that facilitators may choose between hierarchical, co-operative, and autonomous modes of facilitation. Within each mode the facilitator has different degrees of influence in the group (with hierarchical having the most, and autonomous having the least). For example, facilitators do things for the group when they operate in a hierarchical mode; they direct the process, give meaning to actions, create the structures in order to get the group off on the right track.

In the initial stage of team development, persons who have never before been enabled to self-direct may initially need to be directed as to how to self-direct (Glaser, 1992; Heron, 1989). Facilitators are effective, not because they have used a particular behavior, but rather because they have responded with a behavior that is appropriate for the context.

Choosing to lead, choosing to participate. Since members of work teams ultimately develop an extensive repertoire of skills, any member can be expected at some point in time to assume leadership of a team activity. How members make the decision to lead an activity, to allow others to lead, and to effectively participate is an important dynamic in work team interaction.

In Leadership is an Art, Max DePree (1989) described "roving leaders", people who assume leadership roles at the moment leadership is needed. In self-directed work teams, one might ultimately expect to have a team full of roving leaders. By the final stage of team development, members are trained in a wide variety of skills, and anyone should be ready to act in a leadership capacity whenever, wherever and however they were needed (Orsbum, et al., 1990). Roving leadership is characterized by a give-and-take. Team members enable each other to use their special competences when they are needed, and willingly yield to the team member who is the appropriate leader in the moment. Ideally the work team would have such synergy that members think and act for the whole, as if they are of one mind. Through this collective "mind" the best leaders for the particular task or situation emerge. Members recognize that, whether they are contributing in a leader role or a participant role, all persons' contributions to the team's effort are interdependent and are responsible for the final
results. As a member of a fully self-directing team, it matters less which role one is playing, than it does how effectively the team is working together towards desired outcomes. In this sense, it is likely that each member thinks of him/herself as both leader and participant; and the choice as to which role one assumes may be made in the ongoing collaborative dialogue of members of the group.

Most of the literature on teams separates leadership and participation, and discusses leadership in teams as a specific position or formal role (Blake, et al., 1987; Buchholz, et al., 1987; Orsburn, et al., 1990). The leader may be appointed by management or chosen by team members, and may be a former supervisor, an expert member or a member with good interpersonal skills, depending on the need of the group and the group's stage of development. The person may be a full-time leader or a rotating leader (Orsburn, et al., 1990). However, regardless of the leader's origin, expertise or tenure, there is a clear distinction between the person who is the leader of the team and the others who are supportive, collaborative participants.

The distinction is supported by collections of behaviors and skills that are recommended for leaders of teams and participants in teams (Blake, et al., 1987; Buchholz, et al., 1987; Orsburn, et al., 1990; Senge, 1990). In both roles, new skills, and often a new mindset, must be developed in order for the teams to be successful. In addition to the emphasis given to developing the leadership skills necessary for nurturing teamwork, Blake, et al. (1987) made a strong case for training team members in participation skills before work teams are put into action. To begin to address the question of when a team member participates and when s/he leads, one would want to know if the appropriate skills to do either are present. A synthesis of effective leader and participant skills and behaviors have been compiled and can be found in Appendix A.

In addition to considering whether or not members have the skills to perform either role, leadership dynamics in the teams can be further addressed by inquiring into the patterns of talk and action through which these choices are made. A number of questions regarding the taking of these two roles can be considered:

How do members in the group make decisions together about when to seek or assume the leadership role?

Through what elements of their discourse do participants give each other permission to lead?

What experiences, events, circumstances trigger role changes?
What core values, meanings, and norms have been negotiated that dictate how people assume the leadership role?

How do members maintain balance between roles? If an imbalance between leading and participating occurs, what do participants do to regain the balance?

What is the role of disclosure and confrontation in this process?

As team members interact, observation of these events can enrich the understanding of leader-participant dynamics, and also provide feedback on group process to group members.

Summary

The foregoing review of the literature, discussing the nature of self-directed work teams and the connections between their communication, their actions and their effectiveness, can be summarized as follows. As members of self-directed work teams take on broader and deeper roles, the sharing of information becomes critical to their success. Maximum information sharing is possible when group members communicate openly. The more openly they can communicate, the more access they have to the information needed to perform their tasks. Open communication also builds and maintains trust necessary for people to share information; in this sense, open communication is a way to sustain self-direction. In a context of open communication, new spaces for action are created in which the team is able to accomplish more together than they could as separate individuals; this is synergy.

These general notions from the literature review were enacted in experiential learning groups. A discussion of these groups and the learnings in action follows in the second segment of this review.

Pre-studies: Experiential Grounding

The pre-study stage of research is critical to building a foundation for the research (Brinberg & McGrath, 1985). Research events that occur in this stage contribute to a study in ways similar to the contributions of the literature review; that is, they serve to raise questions and build concepts that point to the need for the research. Pre-studies also provide experiential grounding that closely connects the researcher to the data (Lincoln & Guba, 1985; Reason, 1988). Two research events were influential in developing the present research strategy. Two work groups were used to build theory, complement the literature review, generate a research agenda, and
to experiment with various aspects of the research process. These pre-studies played a
generative role in the development of the research plan, and also provided an arena for
data analysis. In this section, the two pre-study sites will first be discussed as distinct
research events, serving specific purposes; emphasis will be given to their role in the
pre-study stage. In Chapter 3, the sites will be addressed in terms of methodological
considerations.

The generative research site

The first pre-study group, AdVenture Group, was specially constructed for the
purpose of inquiring into the creation of a consulting group by its members. The
original group consisted of five members with diverse styles, backgrounds and
expertise; the composition of the group has changed slightly since its inception. The
researcher is an original member of the group. We have met weekly since August,
1991, and intend to continue as a group throughout the duration of the present
dissertation research and beyond. The group has very little structure, has no
appointed leader, and is not a formal unit of a larger organization.

As a group we conduct what Reason (1988) calls "co-operative inquiry". Co­
operative inquiry is research in which participants co-create knowledge "in action and
for action". Group members collaborate in creating research focus, sense-making,
action-taking, simultaneously acting in the role of both researchers and researched.
Group sessions are characterized by dialogue, in which people share lived
experiences, personal meanings and intuitive insights. In cooperative inquiry,
subjective experience is a data source validated by critical reflection; dialogue is a way
of understanding the whole, generating knowledge and generating action. The use of
cooperative inquiry will be discussed in greater detail in the following chapter.

Our inquiry began with an emphasis on the task of creating a distinctive
technology to share with other groups. Together the participants possessed a mixture
of skills and qualities which they believed could be instrumental in generating an
alternative approach to group process. Central questions at the beginning of the
inquiry were: What are our competencies? What do we believe? What could we
promise to our clients? What would our "product" look like? What could we offer to
groups that adds value? It became clear in addressing these questions that we were not
only inquiring into task issues, but also into our selves. In addressing these
questions, each of us in our own way was inquiring into our identities as persons and
group members, our personal values, our past and present experiences, and meaning
in our lives. We became accustomed to interweaving personal inquiry and group task development. We practiced engaging in personal inquiry with others. We took our learnings out into the world, experimented with them, and shared those experiences with the others in the group. We discovered that practicing personal inquiry was not just a way of developing our technology (and developing ourselves); it was the distinctive technology of the group. To engage in personal inquiry was to practice our technology.

Over the initial months of inquiry, central themes began to emerge from our dialogues. We addressed emergent themes as they arose, noting those that frequently found their way into our talk, and revisiting and challenging those with which we began to feel comfortable. We sought out generative tensions in the themes as a way of shifting our perspectives. "AdVenture theory" continues to unfold; we have periodically summarized and documented the state of the emergent theory. Some of the emerging learnings and working hypotheses that have been influential in the direction of the present research are:

1) A holistic approach to group work creates an essential simultaneity that enables both personal and collective interests to be served; we are a community. Our discovery that we could simultaneously address personal and group development at several levels while at the same time engage in our practice, exemplifies a holistic approach. Our perspective of wholeness in groups manifested itself in several ways. First, the group cares for and supports the whole person—the inner self, the subjective as well as their objective realities, the intuitive creative side as well as the rational side. Second, the group has a sense of wholeness—the group as a whole, and the whole context in which it is embedded. Third, actions and outcomes desired are considered in light of their ecological soundness; the impact on both the person, the group and the context are all important. Finally, the group attempts to simultaneously act in the interests of the parts and the whole on several levels: the attributes and behavioral patterns as parts of the whole person, the person as a part of the group, the group as a part of a larger context. The group attends to the reciprocal relationship between parts and whole and strives for coherence.

In moments throughout its history, the group has functioned as a community. According to Peck (1987), community can be recognized by eight qualities. First, community is inclusive. People in community include others regardless of their differences, and accept others as they are. Inclusivity also means that community
members do not exclude themselves from the group, but rather demonstrate to others in the group a willingness to co-exist. Communities are inclusive in their decision-making; rather than deciding by majority vote, decisions are made by consensus so as to incorporate the diverse viewpoints of the members. A second characteristic of community is realism. A consensual approach is a more realistic approach to issues because it mirrors the diversity of the rest of the world. Thirdly, communities are contemplative. Because community itself is fleeting, impermanent and "repeatedly lost", people in community must be reflective about being a community. The contemplative nature of community means that people are thoughtful about the group, reexamine their purpose, and revisit their core values. Fourth, communities are safe places where people are free to be vulnerable, and to be open with each other. Members of communities in relationship are accepting of each other as they are, rather seeing the other as someone who needs to be changed, fixed or healed. This freedom from judgment creates a safety in the group that allows people to drop their defenses and become whole. Next, Peck suggests that communities are laboratories in which people can engage each other to safely experiment with new ways of being and acting in the world. People have the opportunity to experience acting without defensiveness and mistrust. Sixth, a community is characterized as a group that can fight gracefully. As a highly inclusive group of people that celebrates each others differences, conflict is inevitable and natural. People of community engage in conflict respectfully, with listening, empathy, and understanding. Seventh, a community is a group of all leaders. Hierarchy is set aside; individuals are accepted with their various gifts that they bring to the setting, and because of the safe and inclusive environment, they are free to use those gifts as needed by the group. A community has a "flow of leadership" and people step into the flow at the precise moment they are needed. Finally, Peck believes that community is a spirit; that an undercurrent of peace and love pervades the the struggles, the conflicts and the tensions of people who are in community. Experiences with community in the AdVenture Group generated the broad working hypothesis that effective teams act as communities; consequently the qualities of community are evident in the remaining three learning points.

2) Surfacing values early on and cycling through them regularly gave the group a strong sense of meaning and purpose from which to act. Early in the group's history, we intentionally focused on personal and group values. We began to articulate a core of values which we reflected on and revisited in our dialogue. We
challenged our actions in relation to these values, and we challenged our values in relation to our actions. Whether faced with questions regarding new members, our research agenda, or interpersonal relationships, we used our core values as a reference point from which to act on issues of concern to the group. At the same time we held a meta-value consistent with our action-reflection approach: core values are mutable and a matter of choice. Thus we live with a generative tension between the cluster of core values that we feel is central to our approach, and our commitment to choice and change; that tension is resolved in the moment of action by maintaining congruence between values and action.

3) **Self-disclosure is central to the growth of the group; most incidents of self-disclosure generate some new action.** We began to practice self-disclosure from the first group meeting. Many of the early disclosures were stories of significant life events that communicated more deeply members' identities. The longer the group was together, the deeper the disclosures became. Members began to use the group as a workshop for personal change, as well as for generating a unique technology. Some disclosed personal predispositions that potentially could impair or enhance the group's development. Our experiences with disclosure paralleled that which has been reported in the literature (Rosenfeld, 1988); we were able to access more information, more resources, and more energy with each disclosure. A key pattern that developed was that nearly every major disclosure was followed by a burst of collective energy and some significant group action.

4) **Groups achieve a state of synergy that we call being "in the flow;" when we experience being in the flow, we see its value in terms of quality of action and outcomes, and want to re-create it.** The metaphor "in the flow" seemed to integrate our sense of wholeness and our interest in generative dialogues for action. We reflected on how we had experienced the flow through our dialogues and attempted to articulate the experience, the process, and the outcomes as they applied to our future practice. Our experiences with being "in the flow" were associated with positive feeling states, increased energy, and peak experiences. We noticed that the act of being in the flow drew heavily on intuition. Metaphors that generated understanding, connections between people, shared meanings and further action were central to the dialogue. The process was characterized by a sharing of personal passions and personal meanings that converged into co-created shared meaning. The collective action that seemed to flow from this state was as if the group were of one mind; people seemed to be able to
accelerate their action and achieve greater outcomes as a result. We experienced a synergy created in dialogue.

AdVenture Group has continued to move forward. While we continued to articulate our values and practices, we also felt a strong need to take action on them. Members were attentive to opportunities to engage in praxis. One of the first opportunities to practice our theory came in the form of the group which is characterized as the "pilot study" in the present research. One member took AdVenture theory "on the road" in her work with groups and reported back to the group. The vision of the group is that every opportunity to work with groups is an opportunity to practice theory; wherever there is dialogue there is a potential adventure. We built a collaborative research agenda around the consensus that anytime any of us, either together or individually, uses AdVenture practice in research, the data will be shared as part of the theory building process. The interrelationship of AdVenture group practice and the present research was also enacted in the research, as a fellow group member also collected data at the data site. While both researchers had distinct research foci, our common link through AdVenture group meant sharing of our observations with regard to AdVenture praxis. So while this research stands on its own as an independent project, its connection to other agendas added depth and insights to the present inquiry.

The pilot site

The purpose of pilot studies is to clarify, test and refine the elements of the planned research (Glesne & Peshkin, 1992; Yin, 1989). Pilots can be formative in developing research questions and clarifying concepts. They may serve as an inquiry into both substantive and methodological issues. Pilots are "laboratories" in which to try out methods planned for the main study. For example, interview protocols can be tested for appropriate language and length, and for their ability to elicit relevant information. The researcher can also learn more about herself in the role of observer and interviewer by practicing these roles.

The second "pre-study" site was also a specially constructed group, begun in February, 1992 as the project of graduate students in a leadership seminar; its purpose was to inquire into the creation of self-managed work teams by becoming a self-managed work team whose end product would be a workshop on self-managed work teams. Structurally, the group has no permanent leader but rather has a pattern of rotating the facilitator role weekly. The group has a strong norm of consensus seeking
among members. The group typically creates agendas for each meeting, sets
deadlines, and is strongly focused on its task. Membership is fluid with 10-15 people
counted as members; typical meetings have included 6-10 people.

In May, 1992 the group held a two-day meeting to devise a plan for creating
the workshop. The meeting included an activity in which AdVenture Group
representatives shared parts of their evolving technology. Following the meeting, I
was invited to join the group. In accepting the invitation, I communicated my intention
to collect dissertation data as a participant observer by becoming a contributing
member of the group in the various tasks and roles.

The invitation to join the group provided an opportunity to "pilot" some of the
working hypotheses emerging from AdVenture inquiry as well as to practice
participant observation. Specifically, I saw this setting as a place where I could 1) 
experience another group's process, 2) compare and contrast it to the concepts
unfolding in AdVenture Group, 3) apply the elements of AdVenture practice in setting
other than AdVenture Group, and 4) practice research skills including taking field
notes, conducting interviews, analyzing data, giving feedback.

The important learnings regarding the present research that have taken place
through my participation in this group are the following:

1) *Learnings about researcher roles.* In my group member role, I found many
of the experiences frustrating. It was clear to me that my personal style was generating
strong response to the events unfolding in the group. I practiced stepping outside my
personal style and viewing the events as an observer and as an AdVenturer; I found
that holding these roles in balance was exceedingly challenging. These experiences
signaled to me the strength of my own filters, and the importance of documenting
these as part of the data.

2) *Clarifying research questions.* In contrasting the experiences of AdVenture
Group and the pilot group, an important difference seemed to be in the role of core
values in the groups. I noted the degree to which core values were explicit and implicit
in group discourse, the specific talk about the group's value system, the role that core
values played in action-taking regarding major issues, problems and conflicts; the
patterns that emerged stimulated an interest in probing the connection between action-
taking and reflection on values and outcome accomplishment. Research questions
regarding the centrality of core values were informed by these observations.
3) *Learnings about research as practice.* The workshop development sub-groups and in my turn in the facilitator role provided opportunities to practice AdVenture technology. In these roles I experimented with modelling the behaviors of others, enacting the AdVenture value system, and engaging in cooperative inquiry in a different context. This experimentation produced knowledge in action in regard to self, others and the group as a whole. In addition to the usefulness of the knowledge that was generated in context in the moment, this activity was helpful in familiarizing myself with the experience of praxis.

4) *Procedural learnings.* Each week the group also rotated the roles of recorder and observer. I used my turns in the recorder role to test and improve my field note-taking skills. By writing the minutes from my field notes in conjunction with listening to the audio tape of the meeting, I learned what I was likely to miss and how I could change my methods to capture more information. My participation in the observer role tested and affirmed my ability to synthesize and give feedback. As group members fed back to me through their words and actions that my observations and feedback were useful, I reviewed what I had said, how I had said it, and the context in which it was said. Here again, audio tapes of the meetings were helpful in revisiting the productive events.

In summary, AdVenture Group activities were generative sources of concepts and questions to be pursued in the present study. Pilot site activities put those concepts in a different context and helped to focus the questions. Although they were discussed above as separate research events, they went on simultaneously, shared membership, and thus continuously informed each others' inquiries. These overlaps contributed to the separate inquiries of the two groups as well as the overall inquiry of the present research project. The two activities prepared me for entering the data site, and also generated some additional questions to be addressed before completing the research plan.

**A Return to the Literature**

The foregoing review of relevant literature discussed how open communication and a well-developed communication repertoire not only fosters vital information flow in self-directed teams, but also enables trust and synergy to be generated. The pre-study groups supplemented the literature regarding these key issues; the lived experience with open communication, trust and synergy was a link to deeper
understanding of what communication could mean to a group's action and outcomes.

Two important elements of these experiences did not surface in the first section of the literature review. The importance of the role of dialogue and inquiry in AdVenture group suggested that, beyond practicing effective communication skills, an essential dynamic in teams is the ongoing process of creating and building relationships that generate and sustain open communication. Related to that dynamic is the notion that underlying core values seemed to activate that process. This section returns to the literature to address these learnings and integrate them with the previously discussed material. The following discussions address the potential role of dialogue and values in self-directed work teams.

The importance of dialogue and inquiry

Part of the AdVenture group experience was, as Buber (1965) claimed, that genuine dialogue was a generative source for action. Dialogue is connected conversation. In dialogue, each person is committed to open and authentic communication and in doing so confirms of the other (Gudykunst, 1991, citing Buber). Buber distinguishes dialogue from monologues, which are self-centered conversations, and technical dialogues, which are information-centered conversations. While these two forms of communication, particularly technical dialogues, are important in self-directed work teams, and must be communicated effectively, a team's ability to create genuine dialogue may make a difference in the outcomes it is able to achieve. Based on the experiences of the pre-study group, a focal point in the present research will be how dialogue, as a shared, co-owned entity created by people in relationship (Gudykunst, 1991), may become powerful resource for its creators.

Earlier reference to the Johari window noted how a work group could use several communication skills to reduce its "hidden" and "blind" areas and expand its "arena". Expanding the space for action by reducing the "unknown" quadrant was not discussed; the ability to engage in genuine dialogue may be a way to reduce that quadrant. To expand the "arena" into the "unknown" quadrant requires a willingness by both parties to venture into the unknown territory together. In exploring the unknown, the participants must continue practicing feedback, disclosure, and listening, but they must also have a way of uncovering together what *they don't know they don't know*. People need a safe context in which to admit their ignorance and to experiment, a context that thrives on diversity of viewpoints, and is inclusive and affirming of every person; these conditions are created in genuine dialogue and
constitute community (Buber, 1965; Gudykunst, 1991; Peck 1987). As noted earlier the experiences of the pre-study group suggest that when teams become communities, they expand their action space even further by developing a spirit of working together that becomes a source for subsequent explorations of the unknown; through ongoing dialogue, the team becomes self-sustaining.

**Values for collective action in self-managed work groups**

The pre-study group's experience with genuine dialogue was interwoven with a group of personal and shared core values that seemed to underlie actions. Values are an important force behind communication and action of people in work groups. Values are at the core of people's actions, their judgments, and their presentation of self. A person's values are driven by his/her needs and social context; a group's core values are derived from the group's goals and needs (Rokeach, 1979). If the core values of the group underlie group direction and action, then some values may be critical generators of communicative actions such as effective feedback and listening, and self-disclosure. The pre-study group's experience suggests that when core values and effective communicative actions converge, dialogue and synergy are generated. Inquiring into values and shared values unique to each team, was seen as a way of understanding the forces behind each teams' actions, and way of identifying any patterns by which values are connected to effective outcomes through action.

The strong influence of core values on the pre-study group's action suggests that core values not only play an important role in work teams, but also that specific values may influence the character of team action. A specific cluster of core values emerged in the pre-study group--authenticity, mutuality, safety, community, and choice. The strength of this core value grounding seemed to make a difference in action, and prompted inquiry into the extent to which they might be present in other work teams. Some evidence exists in the literature that these values are particularly relevant to effective work teams through their connection to the aforementioned communicative actions and group synergy (Gudykunst, 1991; Harmon, 1981; Heron, 1989; Rosenfeld, 1988). These specific values support each other; in fact they are so interrelated that some have suggested that they are inclusive of each other (Gellermann, 1985; Gudykunst, 1991; Harmon, 1981; Heron, 1989). Acknowledging that, in this inquiry they are discussed as five distinct values in reciprocal relationship. The following discussion defines the values, and clarifies their links to communication and
actions. A summary of this cluster of values is found in Table 2.2. More detailed guidelines for observation of these values are included in Appendix A.

**Authenticity.** To be authentic is to be genuine, sincere, truthful, and to have congruence between what is and what is represented to be (Webster's New World Dictionary, 1984). As a personal value, to be authentic is to be true to oneself in the moment of action, and to be true to oneself in regard to the development of one's full potential across time (Gellermann, 1985). Every opportunity for self-expression is an opportunity for a person to be authentic or inauthentic. As a value in interpersonal relationships, authenticity is concerned with whether or not a person is free to be genuinely himself or herself, and the extent to which one can "be real" in the relationship (Massarik, Margulies, & Tannenbaum, 1985).

A person's ability to act authentically depends on self-knowledge and willingness to share that knowledge with others. One must first have some understanding of self-awareness of values, feelings, motives, attitudes, intentions, thoughts, behaviors, and perceptions that make up one's core being--in order to share one's true self with others. Given that a person has self-knowledge s/he makes a choice whether or not to communicate that information to others completely, truthfully, and accurately through words and actions. An underlying value of authenticity enables people to co-create a context in which the choice to act authentically preferred (Massarik, et al., 1985).

Authentic action occurs when there is congruence between who one is and how one portrays one's self to others. Authenticity is manifested in communicative actions such as self-disclosure and feedback. Self-disclosure is a direct enactment of authenticity at the individual level; one verbally shares information about one's core being with another. In instances of feedback where the giver states intentions and "owns" the content, s/he is engaging in authentic action in relationship; one shares information regarding one's self in relation to the other person. Authenticity can also be observed in on-line actions. The value of authenticity is enacted when the person's observed actions in the world are congruent with the beliefs, feelings, intentions that s/he has espoused; since actions are prompted by intentions, the person whose actions match what s/he says s/he stands for is acting authentically.

**Safety.** If a group holds a value of safety, the belief is that all facets of the person (physical, psychological, relational, spiritual) must be free from harm within the group. The relationship provides a non-threatening context in which persons may
be and become, and relate authentically to each other. People can express their full selves in words and actions without their self-identity or self-worth being questioned. For example, they can share with others their feelings, intentions, motives, thoughts, and beliefs without fear of being judged. They can build supportive relationships without fear rejection. They can experiment with personal development, build their self-knowledge, and generate deeper meaning in their lives in a supportive place where their personhood will not be questioned (Heron, 1989; Peck, 1987).

Safety contributes to effective communication by enabling and encouraging the open sharing of information (Buchholz, et al., 1987). Persons in safe relationships experience a freedom to discover and act from all their resources. Since the risk associated with self-disclosure, giving constructive feedback, or acting in new ways, is minimized when judgment withheld, all of the learnings that accrue with those behaviors are available. The space for action is enlarged as the constraints of fear fall away and people redirect their energy from protection to productivity (Rosenfeld, 1988).

**Mutuality.** In valuing mutuality in relationship, participants assert that each person is responsible, autonomous and worthy. When mutuality is present people act with positive regard toward each other, engage in reciprocal influence with each other, and act with understanding and empathy. The strengths and potential contributions of people are celebrated, not for their instrumentality but for their individual worth. Relationships are characterized by authenticity; people act from their cores, rather behave according to the dictates of their positions (Harmon, 1981).

Mutuality enables actions that need a "level playing field" to succeed. It was noted earlier that participants in the complementary activities of feedback and listening can be more effective when they view themselves as co-creators of the communication (Lippitt, 1982; Stewart & Thomas, 1990). If communicators can empower each other through openness to influence, positive regard and empathy, they will be more effective in whatever communication role they play, and in facilitation as well (Heron, 1989).

**Community.** A value of community celebrates the diversity of group members as a unifying force in group action. A community is defined as diverse people united in commitment to common interest while being respectful of each person as a unique individual (Gudykunst, 1991). Key to building community is each person's ability to be open to all viewpoints (those of self as well as those of others) and to
simultaneously hold a concern for self and concern for others in decision making and action taking. Community is a value of balance between diversity and common interest.

Communities are characterized by mutual caring, honesty and trust (Peck, 1987). Communities are characterized also by generative tensions. Conflict and confrontation is inevitable in communities (Gudykunst, 1991). Respectful confrontation is a means of uncovering each person's potential and gaining access to the rich reserve of resources held by the members. If community enables respectful confrontation, members of a group with an underlying value of community might be more apt to use confrontation in order to effectively facilitate their group (Heron, 1989). In addition, community prompts ecologically sound, "realistic" actions; the simultaneous openness to self, other and group adds coherence and integrity to actions (Peck, 1987).

Choice. Valuing choice honors each person's ability and right to choose a course of action. In addition to honoring choice-making, the choices themselves are also respected. Each person accepts choices as owned by the choice-maker whether or not s/he disagrees with them. In valuing people's self-determination, it is also expected that people will take responsibility for their choices. When people make free choices, they alone are responsible for the consequences and have the power to choose to change. Choice is empowering. Choice-makers are powerful in that they are fully responsible for their choices and actions; in taking responsibility they can continuously generate alternatives to maintain, to change, to expand their repertoire.

Honoring people's right to choose prompts actions that promote choice, such as inviting choice, offering multiple alternatives, confronting others with choices. Valuing choice also prompts actions that respect the choice maker, such as allowing the person to respectfully decline choice opportunities, accepting the person's choices without judgment. Honoring choice also generates actions that empower the person to take responsibility, such as remaining neutral to choice alternatives, withholding judgment about the "right" choice for the person, keeping a commitment to mutuality.
Table 2.2 - Core Values Cluster

Authenticity - A belief that each person can be and act in a way that expresses the true self; there is congruence between what represented to others in words and actions, and what is reality for the person (Gellermann, 1985; Massarik, Margulies, & Tannenbaum, 1985).

Safety - A belief that the relationship should provide a non-threatening context in which persons may be and become, and relate authentically to each other; persons can express their full selves in words and actions without their self-identity or self-worth being questioned (Heron, 1989).

Mutuality - A belief that all persons in relationship are worthy, autonomous, responsible, and mutually influential; there is a "level playing field" between all persons in relationship (Harmon, 1981).

Community - A belief that inclusivity, mutual respect for differences, and openness among people unites them in actions which simultaneously serve their personal and common interests. (Gudykunst, 1991; Peck, 1987).

Choice - A belief in the self-determination of persons; people have the right and ability to make choices, people are seen as responsible for their choices.
Summary

The foregoing discussion began by reviewing the body of literature on self-directed, or self-managing, work teams. The theoretical roots of self-directed teams are in socio-technical systems (Trist, 1981). Recent research on teams is not extensive; much of the literature has been developed in practice. In addition, much research has been conducted according to traditional research models, thereby sacrificing capturing the richness and complexity that is the very nature of socio-technical systems (Hackman, 1986; Weisbord, 1987).

A self-directed work team is a way of organizing tasks in which a group of employees are completely responsible for producing a well-defined unit of work (Orsburn, et al., 1990). Self-directed work teams are characterized by interdependent work carried out through face-to-face interaction, a focus on a whole product or service, and self-regulation (Cohen & Ledford, 1992; Manz & Newstrom, 1990; Orsburn, et al., 1990). Self-directed work teams differ from conventional work groups in terms of the extent of member responsibility and control, the nature of communication, and the synergistic quality of actions. In addition, self-managing teams are a structural change, as opposed to being a temporary group, such as a task force or a problem-solving group, that is disbanded after its project is completed.

The move to self-directed work teams is often a change that affects the entire organization. The notion of sharing power and information and moving away from a strict hierarchical system is often a radical shift in thinking for the organization. The impact of self-managed teams, in terms of inception, design, implementation and benefits was chronicled in Table 2.1.

It was argued that much of the work of self-directing, and many of the benefits derived from self-managed work teams are connected to the nature of communication patterns in the organization, in the group, and between individuals (Pearce & Ravlin, 1987). The flow of information is extremely critical to team success (Cohen & Ledford, 1992; Hackman, 1986; Orsburn, et al., 1990; Pearce & Ravlin, 1987). Team members need information in order to learn how to perform their new responsibilities and roles. And because roles within the organization have been reconfigured, free flow of information is a must in order for new role relationships to be successfully enacted.

Information flow becomes a natural occurrence in organizations when people engage in open communication. Open communication is communication created in
honest, empathic, non-evaluative interaction; it generates and sustains the trust and synergy that distinguish effective self-directed teams (Buchholz, et al., 1987). Although the quality of communication can have a major impact on the outcomes associated with self-directed teams, few studies have focused on the communication that takes place within self-directed teams. The direction of this study then was to delve deeper into specific aspects of communication and how they relate to team action.

Three specific communication skills were discussed regarding effective communication in work teams. Effective use of feedback, listening, and self-disclosure can help group members to uncover their resources and channel their energy productively (Rosenfeld, 1988). By engaging in these communicative behaviors and by putting those communication skills to work as they lead, participate in and facilitate their teams' efforts, team members can take action to improve the quality of their interactions. Several pages of guidelines for observing these behaviors in the discourse of work teams were compiled and can be found in Appendix A.

The Johari window was used to explain how open communication is a way of expanding the boundaries of, and removing barriers around, the team's action space. Use of feedback, listening and disclosure enables team members to create more degrees of freedom within which to self-manage. Engaging in these communication skills promotes collaboration, facilitates more information sharing, makes more resources and more courses of action available, enables better informed choices about actions, focus the team's energy, and, consequently, improves the potential for productive action.

Next, the review explained how the researcher's experiential grounding supported and extended the assertion that through a well-developed communication repertoire, team members can generate and sustain synergy and effective action. Experiences with open communication, trust and synergy in pre-study sites generated a deeper understanding of the impact of communication on a group's action and outcomes. Two learnings from the pre-study groups surfaced and were elaborated on. First, it was suggested that dialogue and inquiry serve as an important form of deep, authentic communication. Ability to dialogue (engage in mutual connected conversation) may sustain relationships and provide a way for team members to explore the "unknown" quadrant of the Johari window together. Secondly, it was suggested that the values of the team are a force behind effective communicative
action. A cluster of core values—authenticity, mutuality, safety, community, and choice—was identified. Specific guidelines for observing communicative actions that correspond to those values are included in Appendix A.

The various sources discussed in the literature review are seen as being interwoven in the day-to-day life of self-directed work teams. As members of self-managed teams engage in face-to-face interaction, their discourse and actions can be observed in light of the various dimensions that have been discussed in this review. The communication skills and behaviors (giving feedback, listening, self-disclosing, facilitating, and enacting leadership and participant roles) can be observed as an indication of the extent of the teams' focus on communication, the skill level of the communicators, and the effectiveness of team communication. Of interest as members engage in these communicative acts are the underlying values that guide action, both those observed by the researcher in other settings and those which are unique to the teams. By connecting core values and communicative actions, the intent is to gain a deeper understanding of the underlying forces at work in the teams, that may influence the way they talk and listen to each other, and act together.

This chapter covered the background information that provided the basis for the research questions of the study. The next chapter articulates the methodological perspective which enabled the present study to consider the reciprocally influential nature of the concepts discussed in this chapter. These concepts served as a framework of "sensitizing" concepts (Patton, 1990) that guided the inquiry. As an exploratory study into the world of two work teams, these concepts are just a beginning from which to address the research questions.

What patterns of discourse accompany the actions of the teams?
What core values guide actions?
To what extent are feedback, listening, and self-disclosure evident in discourse?
How do team members go about taking action together?
How effectively do the teams achieve what they set out to do?
CHAPTER III
RESEARCH METHODOLOGY

Research Paradigms and Organizational Research

How researchers go about the business of doing organizational research is based on underlying assumptions and beliefs that shape their way of thinking about conducting research. The dominant paradigm that has shaped organizational research has been the positivist paradigm (Burrell & Morgan, 1979; Clark, 1985; Lee, 1991). The positivist paradigm (also referred to as the functionalist perspective, logical positivism, logical empiricism) permeates social science research as a result of its entrenchment in Western thought, language, and technologies, and as a result of the motivating belief that in order to be a legitimate science, social science should model the procedures and logic of the natural sciences (Clark, 1985; Lee, 1991; Polkinghorne, 1983).

It is not uncommon however, for scholars to call for alternative ways of seeing and studying organizational phenomena in order to expand understanding. For example, scholars in the area of group effectiveness called for broader perspectives that would prompt groups research to move beyond a predominance of laboratory experiments (Steiner, 1974, 1986; Hackman & Morris, 1975, 1978). Steiner noted that the outcomes of groups are a product of the interrelationship and mutual influence of parts of a larger whole, and expressed the need for a paradigm that could accommodate a whole-system approach to group study. Hackman and Morris (1975; 1978) argued that the on-going interaction process must be understood in order to understand how group effectiveness is created, and suggested that learnings about group effectiveness could be expanded by using alternative approaches, such as an action, ethnographic and idiographic frameworks. Additionally, Hackman (1986) noted that because self-managed groups are characterized by "equifinality," (members can choose different and multiple paths and behaviors to achieve desired outcomes), research could be enhanced by finding alternatives to traditional lenses that focus on groups in terms of cause-effect frameworks and single realities. Finally, Weisbord
(1987), in arguing for an action approach to the study of sociotechnical systems, suggested that because these systems are continuously co-created by their members in action, an idiographic perspective not only would enable an understanding of the unfolding uniqueness of a particular system, but also be generative for that system. These examples imply that a research paradigm congruent with the holistic, dynamic, mutually influencing, complex, co-created nature of groups, has the potential to enable break through understanding that could enrich the pool of knowledge about work teams. It is toward this end that the present research takes an interpretivist perspective of the study of the communication and action of self-directed work teams.

The challenge for the researcher who would conduct research from an alternative paradigm is to demonstrate the integrity of the paradigm, its congruence with the research problem, and its implication for demonstrating credibility of the findings. Accordingly, this chapter will articulate the differences between research paradigms and the soundness of each, identify the paradigmatic stance of the present research, link the underlying assumptions to choice of methodology, articulate the methodology and its rationale, and delineate the research strategy, its trustworthiness and its limitations.

**Positivism and Interpretivism**

Much has been discussed regarding the paradigms that guide the conduct of inquiry in the social sciences (Bredo & Feinberg, 1982; Burrell & Morgan, 1979; Lincoln & Guba, 1985; Polkinghorne, 1983). An understanding of the fundamental differences between research paradigms is necessary in order to comprehend the foundation on which a research strategy is built. This section will present an overview of contrasting research paradigms, their assumptions, and their application.

The most common discussions in the literature regarding contrasting research paradigms revolve around the differences between the positivist and the interpretivist perspectives (Clark, 1985; Lee, 1991; Lincoln, 1985; Lincoln & Guba, 1985; Putnam, 1983). As Burrell and Morgan (1979) have noted, these two paradigms are fundamental opposites in terms of four basic assumptions about the nature of social science—ontological assumptions, epistemological assumptions, assumptions about human nature, and methodological assumptions. Lincoln and Guba (1985) also argued that the two paradigms are in opposition to each other and provided similar distinctions based on opposing sets of axioms. Others have argued that while the two do have conflicting assumptions, each has a way of informing the other and can in fact
enrich organizational research when used together (Lee, 1991; Reichardt & Cook, 1979). Thus the following discussion is not intended to advocate the superiority of one paradigm over the other, but rather to articulate their differences, in order to demonstrate the appropriateness of an interpretive stance in the present research.

The following discussion clarifies the assumptions of the positivist and interpretivist paradigms, and offers examples of how those assumptions would manifest themselves in researcher action. As Putnam (1983) has noted, an important difference between the two viewpoints is not so much what particular methods are used, but rather how a researcher goes about collecting data when she sees the world through a particular lens.

Ontological assumptions concern the nature of reality. The positivist paradigm holds that reality is objective. Reality is tangible, external to and exists prior to the individual and can be observed and measured. By operating from this framework, positivists are able to divide reality into pieces, isolate the pieces for study according to operational definitions, and measure them. The desired outcome is an explanation or prediction based on close scrutiny of a component of the organizational world under specified conditions; the positivist has the ability to put tangible pieces of organizational life under a microscope. The interpretivist paradigm holds the view that reality is subjective, and socially constructed as people interact and create meaning from their experiences. Based on this view of reality, interpretivists study a whole that is made up of multiple, divergent, and possibly competing realities. The desired outcome is understanding of meanings at work in the whole, rather than prediction and control of specific pieces that make up the whole; the interpretivist has the ability to embrace the panorama of the complexity of organizational life.

Epistemological assumptions concern the nature of knowledge. The positivist stance is a natural sciences approach to knowledge; knowledge is accumulated through the testing and falsifying or verifying hypotheses about the pieces of reality under study. Knowledge is acquired through objective observation; consequently, the researcher and the researched must be independent and distinctly separate entities. The researcher responsibility not to disturb the phenomenon under study prompts the researcher to safeguard the validity of the research by controlling for human responses to being observed. Under the rigorous control of an objective researcher, hypotheses can be tested and the knowledge base expanded. Knowledge from an interpretive perspective is understanding from the within the subject of inquiry. Understanding is
generated by experiencing the reality(s) of the participant(s) in action (Burrell & Morgan, 1979). Therefore, in order to generate understanding, the observer must become immersed in the observed. For the interpretivist, there is no such thing as unobtrusive observation; observer and observed are engaged in a process of mutual shaping of each other (Lincoln & Guba, 1985). The assumption that the researcher and the researched are inseparable prompts the researcher to intentionally engage in "obtrusive" activities in order to experience participant meanings in context. This assumption also enables the researcher to view self as participant, and participants as co-researchers, a view that empowers multiple sources to create knowledge, thereby expanding the knowledge base through multiple sources.

Opposing assumptions about the role of values in inquiry also distinguish positivism from interpretivism (Lincoln & Guba, 1985). Positivists assert that inquiry should be value-free. The action that results from this stance is a reliance on instrumentation that insulates the research against the influence of values; only "facts" (as determined by the objective measures acceptable to the methodology) are recognized as knowledge-producing. Interpretivists argue that all inquiry is value-bound. The influence of values on the part of the researcher are expressed in the choices of problem, theory, and paradigm. The influence of values inherent in the context affect the action that will be observed. Recognition that these values are influential prompts the researcher to engage in open clarification of values that are at work in the research; values become part of the data set. In addition, once values are openly admitted as a part of inquiry, it is perfectly acceptable to collect data using a value-bound "human instrument".

Assumptions about human nature affect how researchers working from different paradigms construe and act in relation to the surrounding conditions and people in the setting. The positivist view is deterministic, that is, human activity is determined by the situation or environment. Under this assumption, the researcher acts to ensure that those environmental determinants (variables) are controlled for, in order to demonstrate the causes of the effects observed. The interpretivist view is voluntaristic, that is humans make choices and act on their free will. Interpretivists believe that causality is not linear but mutual, so that it is impossible to distinguish causes from effects (Lincoln & Guba, 1985). Under this assumption, the researcher's disposition is to expect that events will unfold, and data will be generated, according to the people's choices as they act to construct their environments. In addition, the
researcher is also predisposed to include all those who generated data in the co-creation of the findings.

The methodological assumption of positivism is that it is possible to create a body of knowledge from which generalizations can be made that hold across time and context. Positivists attempt to develop universal laws that will explain and predict reality (Putnam, 1983). The methodology that is generated by this assumption relies on a clearly articulated and standardized protocol, under which a priori hypotheses are specified, deductive logic is used to determine cause-effect relationships, and those relationships are rigorously tested using quantitative techniques. Consequently, positivists are able to state in advance exactly what the conduct of the research will look like, and what findings they expect. The methodological assumption of interpretivism is that all statements of findings are time- and context-bound. The methodology that is generated by this assumption is an idiographic one. Interpretivist methodology relies on immersion in the setting, allowing events and experiences to unfold throughout the investigation, in order to develop understanding of a particular phenomenon. Consequently, interpretivist researchers do not state hypotheses in advance; rather, the researcher allows findings to emerge and finishes with a set of working hypotheses that relate to the specific case (Lincoln & Guba, 1985).

These assumptions and how they direct research activities of have been summarized in Table 3.1.
Table 3.1 - Paradigmatic Assumptions and Their Influence on Research Activities

<table>
<thead>
<tr>
<th>Activities</th>
<th>Assumptions of Paradigm</th>
<th>Direction of Research</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Positivism</strong></td>
<td><strong>Ontological Assumptions</strong>...&lt;br&gt;Reality is tangible, objective, measurable.</td>
<td>Break reality into parts; examine the pieces closely under specific conditions.</td>
</tr>
<tr>
<td>Interpretivism</td>
<td>Reality is subjective, socially constructed, multiple.</td>
<td>Look at wholes, and interrelationships of realities to the whole. Focus on meaning.</td>
</tr>
<tr>
<td><strong>Positivism</strong></td>
<td><strong>Epistemological Assumptions</strong>...&lt;br&gt;Knowledge is accumulated objectively; observer and observed are separate.</td>
<td>Use techniques and procedures to ensure that observer does not disturb the phenomenon under study.</td>
</tr>
<tr>
<td>Interpretivism</td>
<td>Knowledge is generated through understanding from within the subject of inquiry; observer and observed are inseparable.</td>
<td>Enter participant context; co-create knowledge with participants.</td>
</tr>
<tr>
<td><strong>Assumptions about Values</strong>...&lt;br&gt;Inquiry should be value-free.</td>
<td>Consider only those things that can be measured by an objective instrument as admissible facts.</td>
<td></td>
</tr>
<tr>
<td><strong>Assumptions about Human Nature</strong>...&lt;br&gt;Human activity is determined by environment. Causality is linear.</td>
<td>Control the variables; demonstrate causality.</td>
<td></td>
</tr>
<tr>
<td>Interpretivism</td>
<td>People act on free-will and are autonomous choice-makers. Causality is reciprocal.</td>
<td>Expect data to emerge; include participants in co-creation of findings.</td>
</tr>
<tr>
<td><strong>Methodological Assumptions</strong>...&lt;br&gt;Generalizations can be made that hold across time and context</td>
<td>State a priori hypotheses, clearly specify design, using standardized format. Design driven by aim of generalizability.</td>
<td></td>
</tr>
<tr>
<td>Interpretivism</td>
<td>All findings are time- and context-bound.</td>
<td>Allow research design to emerge from context; &quot;working hypotheses&quot; capture findings.</td>
</tr>
</tbody>
</table>
The fit between the interpretive paradigm and the present research has several important links. As noted in the previous chapter, the sociotechnical perspective, from which self-directed work teams are derived, is itself an alternative paradigm for viewing people and their work in organizations (Trist, 1981). Its central tenets (a holistic perspective, interdependent parts of the whole, self-regulation through member discretion, redundancy of function, continuous learning) are congruent with the assumptions of the interpretive paradigm. Specifically, an ontological assumption that allows for multiple realities enables one to conceptualize a whole system that is created through the choices of interdependent members. Since members of sociotechnical systems are engaged in continuous learning and interact to create their outcomes, knowledge generation is an active, co-creative process. This parallels the epistemological assumption that understanding comes from within, rather than outside of, the subject of inquiry. The emphasis on discretion is consistent with voluntaristic assumptions about human nature. Finally, the complexity generated by the tapestry of interdependent actions on the part of members who are multi-skilled, autonomous choice-makers, means that every system unfolds in a unique way. This research has as its focus two particular cases, and seeks, not to generalize to other systems, but rather to develop understanding within those settings. Thus the methodological assumptions of the interpretive paradigm are congruent with the focus of the research.

In summary, positivism and interpretivism have distinct assumptions that generate different research activities and outcomes. Based on the focus of this research, the assumptions of the interpretive paradigm provide a coherent framework for the inquiry. The methodology that has emerged out of that framework will be articulated in detail in a later section. Before that is done, some clarifications about the interpretive paradigm are in order. This section covered interpretivism in a general sense; the next section will address some variations on the interpretive theme that appear in the literature. Following that discussion, the research methodology will be discussed.

"Interpretations" of Interpretivism

The literature offers various interpretations of what is and is not interpretivism and what methodologies can be called interpretivist. One aspect of those perspectives that is relevant to the present research is the way they differ in regard to whether or not a critical approach is separate from interpretivism (Burrell and Morgan, 1979), is included within interpretivism (Putnam, 1983), or encompasses interpretivism (Bredo
and Feinberg, 1982). The differences seem to be a matter of how these authors frame their discussions. However, since there is a critical aspect to the present methodology, these differences will be clarified before moving on to the methodological framework of this inquiry.

Burrell and Morgan (1979) postulated four mutually exclusive paradigms; these paradigms, in addition to being distinguished by their assumptions about the nature of science as noted earlier, are distinguished also by their view of the nature of society. They contrast the "sociology of regulation" (a view of society as an ordered, cohesive unit) with the "sociology of radical change" (a view of society as a dynamic conflict arena in which domination can be uncovered and potential can be unleashed). The sociology of regulation is a common ground for the functionalist and interpretivist paradigms. The sociology of radical change is embraced by what Burrell and Morgan call the "radical structuralist" and "radical humanist" paradigms. The radical structuralist paradigm holds objectivist assumptions about the nature of science and therefore focuses on the oppressive and dominating structures as targets of social change. The radical humanist paradigm holds subjectivist assumptions about the nature of science and thus directs action toward generating social change through the raising of consciousness. Included in the radical humanist paradigm is critical theory, or critical approach, to organizational research.

Even though Burrell and Morgan argued that the four paradigms were mutually exclusive, they demonstrated that the common ground between the critical and the interpretive approaches are their assumptions about the nature of science. Other scholars, in noting these core connections between the two approaches, characterize them not as distinct paradigms, but rather as related approaches that differ in terms of the extent of researcher involvement and action in the setting and depth of meaning that is of interest (Bredo and Feinberg, 1982; Putnam, 1983). For example, Putnam defined interpretivism broadly as inquiry into meaning and the way persons make sense of their world through communication; she then portrayed the naturalistic and critical approaches as two methodological stances that differ in terms of their assumptions about order and stability, their goals, and their foci. Lincoln and Guba's (1985) use of the term "naturalistic" paralleled Putnam's definition of interpretivism; in the introduction to their work, they suggest that naturalistic inquiry is congruent with the critical traditions through the value-bound nature of inquiry. Bredo and Feinberg noted that the interpretive and critical approaches share an interest in meanings that
occur in a particular context; the differences lie in the depth of interpretation and intentions of the researcher. They argued that, because the critical approach takes into account the knowledge contributions of both positivism and interpretivism, it can hold them in a broader context in order to synthesize and critique them; thus they contend that the critical approach is more comprehensive.

Although the various approaches to inquiry noted in the preceding paragraphs may be conceptualized differently, the common core of assumptions that link them are fundamentally in the interpretivist tradition. Based on those assumptions, researcher choices of interpretivist methodology may be naturalistic inquiry (Lincoln & Guba, 1985), critical theory (Fay, 1987), action theory (Harmon, 1981), co-operative inquiry (Reason, 1988) or some variation of these. The unifying framework of the basic assumptions gives the researcher the flexibility to move between approaches without compromising the integrity of the paradigm. In the works cited above, even though the terms were used differently, their essence (basic assumptions) is similar. In this dissertation, "interpretivism" is used to refer to the paradigm which the present research embraces, according to the assumptions articulated in the previous section. "Naturalistic inquiry" will refer to the methodology proposed by Lincoln and Guba. The term "critical approach" refers to action methodologies in which researcher involvement extends beyond a neutral seeking of understanding and insights from within a particular context.

Methodological Stance

Having established the paradigmatic stance of the present research, the choice of methodology can now be addressed. As noted above, there are methodological options that fit the assumptions of the paradigm. This researcher envisions those options as falling along a continuum that extends from a neutral to an active researcher role, with the ends of the continuum represented by the naturalistic and critical schools as discussed by Putnam (1983). At the naturalistic end, the researcher role would be a passive observer seeking to understand as an insider; at the critical end, the researcher would be an active observer with an agenda for raising participants' consciousness and prompting their liberation from dominating forces. The methodology of the present research is strongly influenced by naturalistic inquiry, but contains elements of a more active, dialogical approach known as co-operative inquiry (Reason, 1988). However, the methodology cannot be considered a critical approach because the research focus
does not contain an emancipatory agenda. In order to clarify this methodological stance, this section will clarify the naturalistic, critical and co-operative approaches to inquiry, and specify the elements of each that are used in this research.

Naturalistic and Critical Approaches Compared

The distinction drawn by Putnam (1983) between naturalistic and critical approaches to research is a useful beginning point. Putnam differentiated the naturalistic and critical approaches on four dimensions: goals and orientation, view of social order and stability, view of context, and meaning. The goals and orientation of the research differ as to the appropriateness of evaluation on the part of the researcher. The naturalist seeks understanding without judgment; the critical theorist, because of the need to uncover forces of domination and repression, relies on evaluation for understanding. The two approaches are opposed in their views of social order and stability. The critical view concerns itself with overthrow of the status quo and releasing potential. The naturalist approach concerns itself with understanding the status quo as a whole—how it works and how it coheres—regardless of imbedded power structures. Both approaches concern themselves with the importance of context. However, to the naturalist, context is neutral; to the critical theorist the context contains the elements of domination which must be uncovered. Although the meanings embedded in contexts are important to both, the two approaches differ in the extent to which they delve into individual and shared meanings. Naturalists seek to understand the meaning that people create through experiences, interactions and language as they are, while critical theorists look for deeper interpretations of subjective meaning, often looking for evidence of dominance embedded in language patterns that shape meaning. Naturalists come to know shared meanings in terms of how they are achieved and to what extent they are present. Critical theorists question shared meanings and aim for critical reflection and mutual understanding through dialogue.

Other key differences between the two approaches are found in the importance of dialogue, the role of values and the relationship of the researcher and participants. Dialogue is important to both approaches, however, it is used for different ends. A naturalistic approach uses dialogue to verify researcher interpretations; a critical approach relies on dialogue as a vehicle by which participants gain emancipation (Putnam, 1983). The core assumption that inquiry is value-bound is basic to both approaches, but values are embraced by the researcher in different ways. For the
naturalist, the important thing is to acknowledge and articulate the values at work in the setting, including her own, and to reach understanding of how they all affect the whole (Lincoln & Guba, 1985). The critical theorist also recognizes the importance of values—especially her own—and acknowledges the agenda that she brings to the research (Bredo & Feinberg, 1982); the values of others are important as well, as they are likely a reflection of false consciousness generated by distorted communication. Thus the relationship of the researcher to the participants varies, from researcher as insider on the part of the naturalist, to researcher as emancipator or missionary on the part of the critical theorist.

These differences between the naturalistic and critical approaches are summarized in Table 3.2.
Table 3.2 - A Comparison of Naturalistic and Critical Approaches to Organizational Research

<table>
<thead>
<tr>
<th>Naturalistic</th>
<th>Critical</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goals/Orientation</strong></td>
<td><strong>Evaluation is instrumental in understanding; seeks to free people from domination and repression.</strong></td>
</tr>
<tr>
<td>Seek understanding without evaluation.</td>
<td></td>
</tr>
<tr>
<td><strong>View of Social Order and Stability</strong></td>
<td><strong>Potential lies within a break from the status quo; domination is inherent in the status quo.</strong></td>
</tr>
<tr>
<td>Emphasis on unity and cohesiveness of the whole; understanding of how the status quo works.</td>
<td></td>
</tr>
<tr>
<td><strong>View of Context</strong></td>
<td><strong>Context holds the elements of domination which must be uncovered.</strong></td>
</tr>
<tr>
<td>Context is neutral; look for meanings imbedded in the context.</td>
<td></td>
</tr>
<tr>
<td><strong>Meanings</strong></td>
<td><strong>Look for deeper interpretation of subjective meaning, including oppressive language patterns.</strong></td>
</tr>
<tr>
<td>Seek understanding of meanings that persons create through experiences, interaction, and language.</td>
<td>Question shared meanings; aims for mutual understanding through dialogue.</td>
</tr>
<tr>
<td>Understand the nature and extent of shared meanings and how they are achieved.</td>
<td></td>
</tr>
<tr>
<td><strong>Role of Dialogue</strong></td>
<td><strong>Dialogue is used for critical reflection aimed at raising consciousness of participants.</strong></td>
</tr>
<tr>
<td>Dialogue is used to verify interpretations.</td>
<td></td>
</tr>
<tr>
<td><strong>Role of Values</strong></td>
<td><strong>Values play a role in inquiry; researcher values directing inquiry reflect a personal agenda.</strong></td>
</tr>
<tr>
<td>Values play a role in inquiry; they must be articulated by all participants.</td>
<td></td>
</tr>
<tr>
<td><strong>Researcher relationship to participants</strong></td>
<td><strong>Emancipator, missionary</strong></td>
</tr>
<tr>
<td>Insider</td>
<td></td>
</tr>
</tbody>
</table>

The methodological approach of this dissertation is neither purely naturalistic, nor is it purely critical. Rather, it draws from both to construct a methodology that corresponds to the aim and the focus of the research. The following paragraphs will locate the present research in terms of the concepts delineated in Table 3.2.

The study has been framed as an inquiry into the connection between how work team members talk and listen to each other, the actions they take, and the
outcomes they achieve as individuals and as a group. This purpose aligns more closely with a naturalistic approach in terms of its goals, its view of social order, and its view of context (see Table 3.1). First, this research is oriented towards understanding connections, rather than freeing the participants from sources of domination. A critical approach would seek to find the sources of exploitation and domination embedded in those linkages through continuous evaluation and critique. The approach of the present research does not have as its intent the uncovering of repressive forces in the system; its primary goal is understanding of the connections as they occur in the setting.

Second, the focus on understanding connections within the whole carries with it an implicit assumption that there is a cohesive whole, as such the focus aligns with a regulation stance (Burrell & Morgan, 1979; Putnam, 1983). A critical approach would view existing connections between talk, actions and outcomes as a system created by dominating forces over time; that system would represent a status quo that must be exposed and broken apart, if participants are to be freed to use their potential. The approach here focuses on the unity of the interconnectedness—specifically, how members create shared meanings, construct their realities, and act together. It is essentially an approach to understand how the status quo works, rather than a move to break apart the status quo.

Third, this research aspires to get inside the setting so as to understand the everyday language and practices of the team members in their particular context. Although historical and societal forces most certainly influence members' conceptualizations of power relative to the context in which the work teams are embedded, this research does not an attempt to reveal the deep-seated elements of domination. A critical approach would take a deeper view of context, surfacing these influences. While those influences are important, such an approach to the context is outside the scope of the present research.

So far it has been noted that with a goal of understanding, a view of the social whole as cohesive, and a view of context as a neutral field within which to understand the language and practices of team members, the methodological stance of this dissertation is more closely aligned with the naturalistic approach. However, even along these dimensions the approach of the present research is not purely naturalistic. The influence of the values that the researcher brings to the setting, and her intentions in relation to the participants, prompts a somewhat more active approach. The
researcher brings to the research two core values that are congruent with critical research: the belief that present organizational systems indeed carry with them communication patterns that perpetuate repression and domination, and the belief that human beings have the potential and capacity to recreate those systems if they choose to do so. Consequently, the orientation of the present research cannot claim to be non-evaluative; to a degree, evaluation becomes instrumental in generating understanding as the researcher enacts her values in relation to the participants in the setting. In addition, a completely passive acceptance of the status quo is not congruent with the belief in team members' potential to create a better organizational world. Therefore, while this researcher does not see herself in the role of emancipator as a critical theorist would, she does view her insider role as one which can unfold as a catalyst for change based on the choices of the participants.

Two actions in the critical approach that seem to align with the present methodology are the attention given to meanings and the role of dialogue. The "guiding hypotheses" that influenced this study speculated that something in the discourse of team members could be generative in terms of their actions and the outcomes they achieve. Accordingly, the shared meanings created in discourse are of interest, not simply in terms of their nature and breadth, but also in terms of their very creation. A purely critical methodology prompts participants in the research to probe sources of shared meanings, expose repressive influences, and learn to generate new meanings through ongoing critique. By engaging in mutual dialogue, questioning, and critique participants can come to generate shared meanings that free them to act in new ways. This dialogical approach is important to the present research because of its ability to prompt reflection, re-visioning and participant-generated action. Therefore, in this study, dialogue with the researcher is seen as not only an information gathering and verification activity, as would be the case with a purely naturalistic approach, but a generative activity as well. For example, researcher-participant dialogue included provocative questions that created an opportunity for the participants to reflect and act. In a sense the dialogue becomes a consciousness raising activity as it is in critical inquiry, however since the researcher role is characterized as more of a source than an emancipator, the dialogue becomes a co-created activity rather than an imposed one. A methodology that employs dialogue as a co-creative process is "co-operative inquiry" (Reason, 1988; Reason & Rowan, 1981). Its influence on the present methodology is discussed in the next section.
Co-operative Inquiry

Reason (1988) broadly defines "co-operative inquiry" as research with and for people, rather than on people. Although there are many interpretations of this methodology, it can generally be said that it encompasses approaches that work openly, directly and collaboratively with the primary participants in the subject of inquiry. The extent of collaboration in the research may range from moments of genuine dialogue and collaboration during the inquiry, to full collaboration at all stages of the research. The present research is a co-operative inquiry in the sense of the former.

Reason characterized co-operative inquiry as having three distinguishing features that align it with alternative, or interpretivist, research paradigms: participatory and holistic knowing, critical subjectivity, and knowledge in action. These aspects of co-operative inquiry will be discussed in the following paragraphs in order to locate co-operative inquiry in terms of the criteria set forth in Table 3.2. In addition the application to the present research will be addressed.

The orientation of co-operative inquiry is the understanding of wholes through a mutual reflection and action generated by dialogue. Participatory, holistic knowing is a way of understanding the complex interconnections of the whole by involving the people who create and are part of that whole. The goal is a deeper understanding that draws on theory, practice and subjective experience and leads to a knowing in action. A key assumption is that the understanding is deeper when it is fully collaborative; full collaboration in the research activity involves not just theorizing, but reflecting, acting, and experiencing together. Participatory, holistic knowing, as a goal of the present research, was articulated in the very beginning when negotiating for work teams' permission to enter the setting. The research was depicted as a way in which both the researcher and participants could learn together; the findings of the research would be generated not just by the person who entered the setting as researcher, but by all of us working together to come to some new understandings.

Because co-operative inquiry seeks to create knowledge in action, the implicit view of social order is a more dynamic one; the focus is less on understanding how the status quo works, and instead on acting upon status quo and learning from that action. Co-operative inquiry holds that "knowledge in action and for action" is a preferred outcome to "knowledge in and for reflection". The primary contribution of research is considered to be the learning and action that takes place in the course of the inquiry;
theoretical pieces also may be an outcome of the research, but they are considered secondary to the development of practical knowledge. Generating knowledge in action is a change process; as participants engage, act and inquire into their actions, they have the potential to change their world as they choose. In the present research, dialogue in which team members share information and the researcher feeds back observations prompts a cycle of engaging the new learning in action, then continuing to dialogue further about the experience to produce new learnings.

Critical subjectivity enables participants to engage in dialogue that probes meanings and the underlying context, through a mutually orchestrated consciousness-raising. Co-operative inquiry holds that our lived experiences and intuitive knowings are data sources for producing knowledge. However, the high degree of subjectivity present in our personal interpretations of these sources raise questions as to their credibility. To be critically subjective is to develop a level of awareness that considers systematically, both the limitations of and the potential behind subjective knowing using critical thinking. Rather than focusing solely on objective or subjective knowing, critical subjectivity bridges the subjective-objective dichotomy; it allows for intuitive, experiential knowings to emerge, while at the same time bringing those knowings to consciousness and setting them apart for critical evaluation. In the present research, critical subjectivity played a role in some of the dialogue. When team members were willing to discuss their assumptions and hold them open to questioning, research questions probed core issues. For example, some members raised the issue of wanting better communication between shifts, and also held to the view that team meetings were not necessary or possible. The researcher used provocative questions such as *Do you want that to change? How important is that to you? What could happen that could resolve that situation?*

The essence of co-operative inquiry is a dialogue that is collaborative, authentic, and egalitarian; there are not researchers and subjects—only co-learners, co-participants, and co-researchers. It is conducted in a spirit of mutuality, caring and community. It holds the underlying assumption that people have the capacity to reflect upon, critique, and choose actions that positively shape their world, and can learn to do so through a collaborative relationship with others.
The co-operative inquiry methodology can be summarized using the dimensions listed in Table 3.2:

**Goals/Orientation**
Seek understanding of wholes through a mutual reflection and action generated by dialogue.

**View of Social Order and Stability**
A dynamic view, focusing on acting upon status quo and learning from that action.

**View of Context**
Context is probed, shaped, even created, collaboratively through dialogue.

**Meanings**
Probe meanings through dialogue; mutual sharing of subjective experience generates deepest understanding.

**Role of Dialogue**
Dialogue is a collaborative act between researcher and participants. (It is the essence of the methodology).

**Role of Values**
Values, as part of subjective experience, are articulated and critically reflected upon in the dialogue.

**Researcher relationship to participants**
Co-learner, co-participant, co-researcher.

As noted above, the present research is congruent with this methodological perspective in three ways. It was framed as a mutual learning activity that emphasized learning in action; it sought to engage in authentic dialogue with people in the setting; and it offered them the choice to critically reflect on their actions, assumptions and experiences. In addition, co-operative inquiry is a persuasive methodology to this researcher because it is a respectful, mutual, authentic approach to research. For this researcher, neither the passive approach of a purely naturalistic stance, nor the missionary approach of the critical theorist, resonates with researcher values. However, the egalitarian nature of co-operative inquiry fits well with this researcher's assumptions about human potential and values of choice, respect, and authenticity.

According to Reason (1988, p.9), for an inquiry to claim to be co-operative, "the nature of the involvement of the participants should be openly negotiated, ...all should contribute to the creative thinking that is part of the research, and ...the relationships should aim to be authentically collaborative." These minimum requirements have been satisfied by the present research.

In summary, the methodological stance of the present research fits within the interpretivist paradigm and was strongly influenced by both naturalistic and co-
operative inquiry approaches. Its goal was understanding of the whole, through
dialogue as well as through observation. Its orientation toward change was framed by
respect for the choice of the participants to change, offering dialogue and collaboration
as a way to facilitate that. Understanding of meanings in their particular context was
approached through immersion in the setting, and also through dialogue. While
researcher-participant dialogue played an significant role, it was not the entire focus of
the study; observation of the everyday experiences of team members in talk and action
also contributed to the findings. Thus the present methodological stance might be
called an active, co-operative form of naturalistic inquiry.

Rationale for an Interpretivist Approach

The rationale for choice of methodology articulated thus far can be summarized
as follows. First, the assumptions of the interpretive paradigm were said to be
congruent with the assumptions of a sociotechnical perspective, which is the
philosophical underpinning for self-directed work teams. If systems are to be studied
as wholes in which people in interdependent relationships make choices and take
action together, an interpretive paradigm is appropriate because it takes a holistic view
that embraces multiple realities, multiple outcomes, and complex relationships.
Interpretivist methodology can effectively study the dynamic, unfolding nature of
sociotechnical systems, because of the underlying assumption that knowledge is
emergent and generated in action, and that knowledge generation is an active, co-
creative and on-going process. Interpretive methodology allows the researcher inside
the system to become one with the phenomenon being studied, giving the researcher
access to the experiences that contribute to understanding.

Secondly, construction of an interpretivist methodology for this particular
study was justified based on the focus and purpose of the research. That methodology
was said to somewhat of a hybrid, combining elements of naturalistic, critical, and
cooperative inquiry. A naturalistic approach fits with the goal of understanding the
connections between team member talk, action and outcomes as if they are part of a
cohesive whole; it also seeks to understand from inside the participants' particular
context rather than to raise issues of power or domination within that context. A
critical approach is appropriate where the study's interest turns to the creation of
meaning through language, and the co-creation of knowledge with participants; the
methodology is designed to allow for questioning and looking deeper into meanings at
the choice of the participants. Both of these interests are served through dialogue, the
central method in cooperative inquiry; the methodology allows for dialogue to be a generative activity, as well as an information gathering and verification activity.

Thirdly, the methodology was justified in terms of personal values and assumptions. Glesne and Peshkin (1992) have argued that the research paradigm should be as congruent with the researcher as it is with the research. This researcher’s assumptions that organizational systems carry with them communication patterns that perpetuate repression, and that human beings have the capacity to recreate those systems if they choose to do so, dictate a methodology that allows involvement that goes beyond detached analysis and beyond passive observation. However, the strong belief in individual choice precludes the researcher from imposing an emancipatory agenda on the participants; instead egalitarian values dictate a researcher role characterized more by mutuality, in which the researcher becomes a catalyst or source. Thus cooperative inquiry, which holds that the parties are co-researchers and co-participants, rather than researcher and participants, is more suited to this personal value. Finally, the dialogical portion of the methodology that emphasizes authenticity and critical reflection is not only congruent with personal values, but is also a personal way of knowing that enhances the inquiry.

The above arguments demonstrate a coherence between the research paradigm and the research problem. The particular research methods dictated by the research paradigm ensure coherence in the execution of the research as well. Interpretivist methodology uses qualitative methods to collect and analyze data. A distinguishing feature of qualitative methods is that the instrument used to collect and analyze data is the researcher herself. The "human instrument" was considered to be very appropriate to the aims of the present research and the nature of the research problem. The following paragraphs elaborate on the benefits of using the human instrument to address research questions regarding meaning in context, multiple and constructed realities, and knowledge created in action in a particular setting.

The intent of this research is to explore the connection between the communication patterns of the work teams and their actions. How people talk and listen to each other and what they enact together arises from the meaning that they give to communication and actions and the realities they create (Bateson, 1979; Weick, 1979). Words and actions have meaning only in some context; the contexts in which meaning occurs are connecting patterns formed from experiences across time (Bateson, 1979; Bruner, 1990). In the present research, the data of context and
meaning is found in the everyday experiences of teams on task, the talk in team meetings, the interactions of team members as they train each other, the interactions between the teams and management, and the stories and histories that are told. As data collection instrument, researcher was able to enter the context to engage in subjective experience with the participants and to tap into the creation of meaning. An advantage of using a "human instrument" for this purpose is that data can be immediately and ongoingly processed such that it can be summarized and checked out with the participants. In addition, a human instrument's responsiveness and adaptability enables pursuit of the understanding of meaning wherever opportunities arise (Lincoln & Guba, 1985).

An important assumption of this research is that people socially construct their reality through language (Berger & Luckmann, 1966). Language provides a structure by which we make sense of the things around us (Wilden, 1987). When people interact, they use the common structure of language to interpersonally negotiate reality and come to some consensus as to the meaning of things (Harmon, 1981; Weick, 1979). The researcher was able to partake in the continuous flow of intersubjectively negotiated reality in the communication of the work teams, by watching and listening (observation), questioning (interviewing), and engaging the participants (dialoguing). Here again, the advantage of the human instrument is the ability to clarify and probe the realities in the setting (Lincoln & Guba, 1985).

Each participant's distinct set of experiences contributes to the multiple contexts, multiple meanings and multiple realities in the setting (Bateson, 1991; Lincoln & Guba, 1985). The numerous differences between the two teams illustrate the importance having a way to share in multiple contexts and realities. Differences in history, processes, and stages of development shaped two different worlds for the two teams; in order to understand their talk and actions their two worlds had to be accessible. Similarly, as the teams interacted with management and support staffs, the realities of those two groups played a role in shaping the dynamics. In addition to the realities brought to the setting by the participants, the researcher herself brought to the setting her own experience framework from which she constructed still another reality. "Human instruments" can not only be present to multiple realities, but can be present to them in different forms. Forms of engagement such as observation, interviewing, dialogue, and document review were used to provide a multi-faceted approach to multiple realities. An additional benefit of the researcher as instrument in this situation
is that having collected multiple data on multiple realities, the human instrument has the unique ability to grasp the both whole and its parts simultaneously (Lincoln & Guba, 1985).

Experience as human instrument in the present research substantiated these benefits; a brief example is given here to illustrate how these benefits were manifested in conducting the research. Upon entry into the setting, the meaning of the word "team" was generally assumed to be the same across all contexts, however over the course of the inquiry it became apparent that the word took on different meanings for the two teams, and the actions of "being a team" differed as well. By spending over three months inside the construction of the two teams' realities in team meetings and in the job setting, the researcher began to notice that the realities of being a team were enacted differently by the two groups. The Plant B team lived with a vision of a future that manifested itself in action as a drive to take on unlimited responsibilities; the Plant A team's vision was one of equity that put limitations on their actions as a team in relation to the actions of management. As the researcher was present in the two contexts, she could process this data and summarize it in the presence the participants, in an effort to verify the data and probe alternative realities. At the same time, she was able to seek out or discover opportunities to pursue the question of "what is it to be a team?" further; a serendipitous encounter with the plant manager on a 2 hour plane ride provided a surprising contextualizing and clarifying opportunity. By being present to the realities of the two teams in various ways (through interviews, observations, and dialogue), not only were the distinct realities better understood, but also the whole picture of how the two teams were united in this common theme could be considered as a larger puzzle.

Thus, not only the research paradigm, but also the methodology that accompanied it can be justified. In the next section, a research strategy congruent with this methodological stance will be discussed in detail. The techniques for data collection and analysis used in this research will be clearly explained, and their bearing on the trustworthiness of the findings will be addressed.

The Research Strategy

The quality of research is enhanced by careful planning and a great deal of forethought. Not only does planning demonstrate the researcher's understanding of the scope of the project, but it also ensures that the research process will be systematic.
This research began with a well thought out research plan, part of which was the awareness that the plan would likely change as needed. When one conducts qualitative inquiry, one must keep in mind that at any moment in the course of the inquiry emergent data may call forth new research questions, refocus attention, call for creative new strategies (Marshall & Rossman, 1989; Patton, 1990). In the following segments, the dance between the plan and the actual conduct of the research is discussed. Each phase of the research is explained; each explanation is accompanied by examples of how that phase was conducted.

**Negotiating for entry into the research site**

Entry into the research site was first negotiated with the plant manager and the Vice President of Human Resources. With their blessing, the two teams were asked for permission to study their talk and actions for three months. Each team member was presented with an explanation of the proposal and an outline of questions and requests to be negotiated; (see Appendix B for this document). The proposal was presented to Plant B on January 13, 1993; the team agreed to participate, and within a week, dressed in coveralls, hard hat, safety glasses and work boots, I began regular visits to the plant. The proposal was presented to Plant A on January 27. It was accepted by most team members; at the time some declined to be interviewed. The first visit to Plant A commenced on February 4.

**What counted as data?**

The "data" in this study were any pieces of information that represented the meanings and realities of the participants. Data created and co-created by the participants in their face-to-face encounters was of central interest; this included participant(s)' talk, dialogue, reflections, writings and debriefings by participants in the setting. As the researcher became immersed in the setting, her observations, reflections, memos, and written documents generated by the setting also counted as participant data. Group and organizational documents that related to the work teams, and transcripts of interviews with non-members of the work teams served as enlightening and contextualizing data.

Qualitative data analysis often begins during data collection and often generates additional data (Lincoln & Guba, 1985; Marshall & Rossman, 1989; Patton, 1990). The presence of a co-researcher in the setting provided a unique opportunity for generating supplemental data. As we traveled back and forth from the site, we debriefed the day and shared insights with each other from personal experience and
from our particular research frameworks. These discussions served as both data analysis activities and generative sources of new data. Supplemental data was captured from these debriefings, as well as co-researcher notes, reflections, and transcripts.

**Data collection**

Collection of data employed three methods: participant observation, interviewing and review of written documents.

An aim of this study was to capture the experiences of the work teams through dialogue and action. An assumption about the researcher role was that she could not experience with others by being an bystander; instead, she must become a part of the context and the action where the experiences are occurring. Participant observation is a way that a researcher can share the work teams' experiences as a participating insider, while at the same time acting in the role of observant reporter to the outside world (Patton, 1990).

One way to become immersed in the setting is to join with the work teams and share as many experiences with them as possible. The researcher shared in both on-the-job experiences, and planning and decision making experiences in the team meetings. The researcher's involvement in the team tasks gave her a first-hand understanding of the daily work life of the team members. The intent was to have as many common job-oriented experiences as possible, for example, taking initial safety training, wearing the same coveralls and equipment, performing various tasks, showering in the locker room, conversing in the break room, and engaging after hours camaraderie if invited. In addition the plan was to spend time working on each shift, either with a "buddy" who can explain work processes and watch over the researcher's performance, or as a "shadow" as team members go about their tasks. Working in the plant was seen an important trust building activity, as well as a way to understand the context, to develop empathy, and to observe and listen to task-oriented communication.

While a great deal of time was spent in the plant, the researcher activity that took place was primarily "shadowing" team members rather than actually performing the work; the reluctance of team members to give jobs to the researcher was in part attributable to team members' immediate need to keep up with personal learning and production demands. Team members had all they could do to learn their new roles, let alone train someone who was there as an observer. Members were very cordial and
accommodating to the researcher, but stopped short of putting her to work. Team members' concern over producing good product gave me the sense that 'you can look at, but don't touch, my plant'. On two occasions team members gave me the opportunity to try my hand some simple packaging tasks; (packaging tasks are less desirable and often given to part-time help). I found that I had neither the strength to load 52 pound bags on to pallets, nor the dexterity to crimp bags effectively; team members assured me that it takes a while to learn how to do it well. I considered it a major indication of rapport building when at 5:30 on a morning in March, a team member handed me a broom and told me where to sweep!

The second opportunity for deeper involvement with the work teams was through participation in team meetings. The work teams have two kinds of meetings in which essential information is shared and in which decisions are made. In the shift change meetings one shift "passes the baton" to the next, sharing information relevant to keep the processes moving smoothly. Weekly team meetings are held to review progress, to address important team issues, to work on team projects, to solve problems. Both meetings proved to be excellent opportunities to further understand context, as well as to observe dialogue and action among team members, and between team members and facilitators or managers, and to listen to the desired outcomes they articulate.

There were also other opportunities to observe how information is shared with and among team members. Training was an important aspect of team life. As teams prepared to take on new responsibilities they learned new skills, both in formal training sessions and from each other. The researcher attended a formal interviewing skills training session as well as team meetings that were set aside as training meetings. In addition, team members participate in cross-functional coordination meetings in the areas of safety, quality assurance, and new plant design; the researcher took advantage of an opportunity to observe how information moves between team members and supporting departments by attending a quality assurance meeting. Whenever I heard of an opportunity to observe information flow to and from team members, I requested to be in attendance; with one exception, requests were granted. In combination, participant observation of activities on the plant floor, team meetings, training sessions, and cross-functional meetings provided access to the groups' on-line actions, their retrospective viewpoints and their vision of the future.
The extent of "participation" in the participant observer role was considered in the plan of the research and expected to be less than the participation of a team member. Patton (1990) suggested that full participation cannot be assumed to be the ideal choice, rather the extent of researcher participation in the setting should be matched to the setting, the participants and the nature of the research questions being asked. In this study, "going native" (full and complete participation) was neither appropriate nor necessary. The research was presented as dissertation research using a three month study to learn about how work team members act and interact. Not only was it clearly stated that, owing to the task and time frame, the researcher would likely remain somewhat of an outsider, but also as a temporary participant, it is unlikely that a researcher would have the same stake and accountability of the team members. To claim full participation in this case would have been deceptive. Engaged participation was necessary here to build trust, empathy and credibility, to learn about the context in which dialogue takes place, and to be party to actual work group dialogue; the researcher believed that these things could be done without becoming a full-time employee of the plant. Feedback from team members in exit surveys and in member checks provided some evidence that this goal was realized; more than one member expressed views similar to the comment, "I thought that you were part of the team."

Interviewing and participant observation were designed into the research strategy as complementary methods. A benefit of using interviewing in conjunction with participant observation is that data can be triangulated between the various data sources (Lincoln & Guba, 1985; Marshall & Rossman, 1989). Another benefit is that, while participant observation gives access to team members' public actions, interviewing can access their inner views. As a result the researcher can obtain data regarding the coherence and congruence between talk about experiences and observed actions. In addition, the meanings persons have created from the shared experiences and their articulation of reality in their talk can be contrasted to those of their peers and the researcher. Interviews provided the opportunity to find out how people felt about these experiences and what outcomes were important to them. Finally, in the later stages of the research, interviews were used to verify the researcher's constructions of events and experiences (Lincoln & Guba, 1985).

The breadth of interviews in this study attempted to tap into the multiple realities present in the setting. Every team member was interviewed, generating two clear benefits. First, interviewing across all team members yielded more data which
helped identify emergent patterns in dialogue and action. For example, talking to each team member revealed value profiles, patterns of talk common to the culture, a shared wisdom about teams, as well as some very different views of what should be going on in the team. Second, interviewing across all team members ensured that no team member received disparate treatment; thus, researcher actions were congruent with organizational norms and objectives. In addition, formal and informal interviews were conducted with non-team members, including the team facilitator (formerly the supervisor), the plant manager, the director of training, and a human resources representative, a manager of Associate Relations, and the former and present plant superintendents. These persons provided contextualizing data, for example, company history, culture, vision, and objectives, perceptions of the relative positions of roles across the company, the view of the work teams from outside the teams.

The degree of structure of interviews is a key issue related to the desired relationship between researcher and participants, the context, and the research questions (Lincoln & Guba, 1985; Patton, 1990). In the present research, three desired outcomes of the interviews were that specific research questions be addressed, that team members have similar experiences in the interviews, and that those experiences be perceived as contributing to learning about the teams. These objectives called for an interview technique that was semi-structured, yet open enough to enable dialogue between interviewer and interviewee. These requirements made the "interview guide" approach, (Patton, 1990), appropriate for this research. For each interview, the researcher used a uniform set of key questions and issues that address the research agenda, (see Appendix B). Within this structural framework, topics were addressed in a manner and sequence that fit the encounter. The desired outcome of the interview was insight into the topics of interest; using an interview guide approach, the appropriate path to that outcome could be co-created by the researcher and the respondent. The advantage of this approach is that it allows spontaneity within a topical framework, yet systematizes data collection across a number of respondents. The drawbacks of this technique come from its unstructured and structured qualities. Freedom to alter one's style in each interview creates the chance that the researcher's presence with the participants will vary from one interview to the next. On the other hand, the prescribed framework may inhibit important topics from surfacing, or may minimize related issues that come up but are not part of the research agenda. Throughout the interviews, the researcher remained sensitive to related issues that
surfaced, probing them if the moment was right, and also noting them in her journal for later consideration.

Unstructured interviews also played a role in this research. An informal conversational interview flows like a conversation between persons; the questions emerge from the context, and may be generated by either party (Lincoln & Guba, 1985; Patton, 1990). Many opportunities for this arose throughout the data collection period. For example, after attending a presentation given by the plant manager to the work force, a 20 minute debrief and informal question and answer session ensued between him and the researcher. Occasionally, when the researchers would journal and debrief in the break room, a team member or management contact would happen by; these chance encounters generally produced some conversation related to the research. As noted earlier, when the researcher is the data collection instrument any of these fortuitous encounters can be turned into unstructured interviews. The researcher took full advantage of these events.

The original research design called for interview plan to remain flexible in anticipation of unfolding events. Interviewing did in fact deviate somewhat from the original plan so as to fit the interviews into the small time spaces that were available. Researcher entry coincided with not only the peak production period but also a time when the team was learning its new tasks while trying to produce at peak. The researcher had to be very resourceful to conduct interviews whenever and wherever she could. Therefore some interviews were conducted in the control room of the plant while others were conducted in a meeting room. Some were conducted in two parts, when the interviewee could only afford to be away from the job for 15 minutes at a time. Even though the settings and time frames may have differed, the flexibility did not interfere with the objective of creating similar experiences across the interviews. The experience of the interview remained consistent based on the interview framework, approach of the researcher, and the fact that respondents always were given the choice to engage in the interview according to their needs and level of comfort.

Another variation on the interview plan was that depending on who had what position on an observation day, certain persons engaged with the researcher in informal, unstructured interviews. For example, a five hour shadowing of one team member provided plenty of extra time for conversation between him and the researcher. Interview data for this person turned out to be twice as numerous as for
some others. Some of these second interviews were used to follow up on things that
the person has mentioned earlier, or to feedback some noticings from the data
collection to date. Occasionally, this sort of activity would yield a dialogue about an
issue important to the teams development; in this case the interview became a form of
action research.

Finally, some interviews were conducted in conjunction with the co-
researcher. Patton (1990) has supported the use of creative approaches to interviewing
when they are responsive and appropriate to the situation. In situations where
interviews took place in the plant, often both of us were present; the natural thing to do
under the circumstances was for both of us to participate. It is important to note here
that when two people interview a participant, the context, the stream of questions, and
the responses generated, will be different from the interview that would have occurred
one-on-one. The dynamics and balance were monitored, discussed and recorded in
the methodological journal; the researcher did not observe that these differences
affected the substance of the data collection.

The third method of data collection used was to gather group and
organizational documents and artifacts. Documents were used to better understand
elements of the context, such as the language of the setting, group and organization
priorities, the extent and nature of communication, relationships and past events. In
addition to reviewing team log books and manuals and collecting newsletters, job
descriptions, procedural memos, notebooks from training sessions, and minutes from
earlier team meetings, some very informative notes and memos were shared by
associates. The facilitator had meticulously documented his words and team member
responses when the team concept was introduced to Plant A. One team member, a
self-described "agitator" and "conniver", shared copies of several letters that he and his
fellow team members had sent to management, articulating their feelings about state of
the team. The openness with which these documents were shared was considered to
be an indication that the researcher had built trust and rapport with both team members
and management.

Some final reflections on data collection. The extent of data collection in total
included over 100 hours of audio tape and hundreds of pages of field notes. Visits
were reviewed throughout the data collection period for balance between plants.
Because the data was being collected from two plants with three shifts each, care was
taken to make sure that each shift and each plant received equity in coverage. This was
tested in two ways. First contact time with each unit was tracked as a way of flagging any imbalance. However, sheer contact time was not always the best indicator of how much meaningful data was collected; sometimes a ten minute conversation was richer than a two hour observation stint. So a second test of balance was to listen for repetition and watch for recurrence of patterns of interaction as indicators that each shift and plant’s data was rich and deep.

The differences between the two plants/teams produced differences in content and type of the data collected. A is a very small plant with a narrower range of tasks. On-site observation often turned out to be more of a conversation with team members in the control room. In addition, because for most of the observation period the team did not have meetings, opportunities to observe interaction between the team as a whole were limited. B is a larger plant with a wider-range of tasks responsibilities; observations in the plant were more active. For example, in addition to shadowing the person in the control room and following him or her through the plant, the researcher could visit different areas of the plant. Opportunities for observing team member interaction was greater, not only because of the work design but also because of the frequency of team meetings. In general the data for Plant A is more interview-like than observational, where the data for Plant B is more balanced between interview and observation.

The technique of "shadowing" turned out to be an effective method of collecting data. The researcher used this technique several times on different shifts in both plants. The procedure followed in this activity began by asking a team member's permission to follow him/her during a four to five hour time frame in the course of the work day. The role that was shadowed was the person assigned to the control room function because of that person's central role in the coordination of the day's operation. From this venue, interactions, communications, and relationship patterns were observed. In addition, communication, interaction, and relationship patterns that were not occurring were noted. Observations of team interaction were interspersed with conversations with the person being shadowed; in a sense the shadowing activity was part observation, part interview.

At the end of the three month data collection period, a multi-purpose activity was designed to bring it to closure. I felt it was important to signal an end to the period intensive observation, rather than to simply disappear from the site. I asked for time on the agenda of Plant B's team meeting of April 21, and paid a visit to the
members of the Plant A team. At that time the teams were reminded that the observation period had ended, and that the next phase was beginning; I would begin to sort through and make sense of the hours of tapes and pages of notes. I made two requests of the team members. The first was for permission to continue to attend team meetings. I believed it was important to continue limited contact with the teams while the data analysis was taking place for three reasons: to keep abreast of the teams' progress, to keep a real world perspective as I engaged in data analysis, and to keep the door open for member checking and providing feedback. The second request was for each team member to complete a three question survey (see Appendix B). One question in the survey was designed as an additional data collection activity; team members were asked to provide any information that they did not cover in the interview or would like to say anonymously. One question was designed as a check on the researcher-participant relationship; it asked team members to comment on having an outsider in the setting. The final question invited team members to have input to the data analysis process by providing them an opportunity to request information or feedback would most help the team. Six out of 21 team members completed these surveys. Little new data was generated.

In summary, the specific data collection methods that were used fit the purpose of the research because they provide access to dialogue, experience, context and meaning in different and complementary ways. Participant observation enabled the researcher to share in the experience of being a team member at Omsco. The language and actions of team members in the work setting, the discourse that surrounded those actions, and the contrasting contexts of the plant floor and team meetings and of Plant A and Plant B, all contributed to understanding. By contrast, interviewing generated learnings about the inner views and feelings of the participants, multiple realities influencing actions, important historical events that contextualize the data, and important future outcomes. Lincoln & Guba (1985) noted that the advantage of participant observation is its access to on-line experience in depth, while the advantage of interviewing is the ability to move between past, present and future experiences. In combination, the two methods inform and strengthen each other. While interview data helped to understand observations, observations helped to formulate relevant interview questions. Combined with collection of data from documents, which also facilitated the understanding of context, these methods served the purpose of the research well.
Data recording

The choice of data recording methods used was, as Marshall and Rossman (1989) advised, mindful of the setting and the participants. The plan was to record data using field notes, journaling, audio taping, and transcriptions, but there were special both ethical and practical data recording considerations.

The concepts of team member involvement, choice and permission played a big role in negotiating to conduct research in the plants at Omsco. Request to use audio taping was clearly stated, however always under the condition that team members had the choice at any time not to be recorded. Most team members feelings about being tape recorded concurred with the member who said, "I wouldn't say anything to you that I wouldn't say to anybody else", but occasionally some would ask to speak off the record. Throughout the observation period, the comfort level with the device grew; team members teased about the presence of the tape recorder, and sometimes chose to use them themselves to take meeting notes.

A practical consideration that affected data recording is that a portion of the observations took place on the plant floor. The plant noise, and the physical activity and pace of the tasks, made tape recording and note-taking somewhat impractical. I typically carried a note pad in one pocket and a tape recorder in another. If I was running through the plant with a team member, I would turn on the tape recorder in my pocket and later write notes in case the data was obscured by background noise. I also used the tape recorder as a supplemental note pad; sometimes it was faster to dump thoughts into the recorder than to write them down. I could also dictate what was happening on the run.

The researcher adapted to these conditions by recording the data in a number of ways. Some of the data were recorded on tape and backed up with a set of field notes. Some of the data were recorded in written field notes, supported by tape recording the researchers thoughts, reflections, observations following the event. Wherever possible and permissible, audio tape recording was used to capture the complete verbal and paraverbal data. Taping was used in meetings, interviews, interactions between participants and researcher, and in the control room of the plant. The accompanying field notes identified feelings, interpretations, hunches, non-verbal communication, and proxemics that accompany the spoken word. In some instances field notes were abbreviated, and reconstructed after the event, or dictated into a tape recorder after the event. Tape recordings were converted to transcriptions for analysis. Accurate and
complete representations of participants' perspectives were verified by participant and co-researcher member-checks, and by using data recorded by others in the form of meeting notes, memos, tape recordings, and minutes.

Data analysis

Qualitative data analysis is "a messy, ambiguous, time-consuming, creative, and fascinating process." (Marshall & Rossman, 1989, p. 112)

Data analysis strategy. This research used an interpretive, inductive approach to data analysis (Denzin, 1989; Lincoln and Guba, 1985; Patton, 1990; Strauss, 1987; Patton, 1990). As noted earlier, the lines between data analysis, data collection, and data generation are often blurred. Data analysis often begins before data collection is completed; data analysis is integrated in the writing of the final report (Marshall & Rossman, 1989).

The generative activity in data analysis is the extensive coding of the data. In the coding process, themes emerge which begin to suggest categories around which data can be organized. Qualitative data analysis is an iterative process of coding and categorizing, cycling back and forth between codes and categories until a saturation point is reached that suggests that the categories are meaningful and coherent (Lincoln & Guba, 1985; Strauss, 1987). The categories bring order to the data and enable the researcher to point to patterns and present the findings in a coherent way.

Because this is inquiry is intended to create knowledge with and for participants, it was important that the participants take part in the data analysis process. In the course of the analysis, emergent themes and categories were cycled through the participants, both in informal conversations and as a formal process. These "member checks" served to confirm or disconfirm the researcher's representation of the insider perspective (Lincoln & Guba, 1985). This analysis used member checking to invite team members to participate in data analysis; in addition to verifying researcher representations, it asked participants for their interpretations as they read through findings (See Appendix B).

Data analysis was shaped by a triangulated strategy that used three complementary and supporting systems of creating categories to aid in data analysis. The first category generation approach builds on the fact that researchers bring to the setting an initial framework of concepts that will guide the inquiry (Patton, 1990). The "sensitizing concepts" in this study were generated by three interrelated activities—literature review, pre-study group experience, and host organization input. As
suggested earlier, a set of specific communication skills and behaviors (feedback, listening, self-disclosure, facilitation, and member choices to lead and/or participate), and a cluster of core values (authenticity, safety, mutuality, community, and choice) can be observed in the discourse of work teams; these concepts influenced the initial framework the research questions and thus became the first data analysis categories. The set of literature- and experience-based observation guidelines in Appendix A were developed to provide a detailed criteria for identifying the presence of these categories. Thus, the one approach to coding was to attend to these "sensitizing concepts" in the tapes, transcripts, field notes, and documents.

The second approach uses inductive analysis to allow categories to emerge from the data (Patton, 1990). Although clear articulation of categories in advance is essential to focusing attention and systematically managing the overwhelming amount of data in qualitative analysis, that same extensive planning can filter out the wild hunches, off-the-wall ideas, and flashes of insight that do not fit into established categories, but are potentially important to the findings (Marshall & Rossman, 1989). Inductive analysis searches the data for meaningful themes and concepts that are generated by the participants in the setting, including the researcher as team participant. The researcher must have the flexibility to periodically cast aside the initial framework, allowing those intuitive flashes and the participants' "indigenous" themes to surface. In keeping with the assertion that we are co-researchers and co-participants, it was important to keep in balance the central concepts that arise from within the setting and those that the researcher brings to the setting. My experience in coding the data for both sensitizing and indigenous concepts was that sometimes the two schemes were in opposition to one another, and sometimes they were congruent. Thus, coding, using these two approaches, was a simultaneous process of holding two categorization schemes—one carefully calculated and one spontaneous—which were both exclusive and inclusive of each other. The consideration of both as simultaneously separate and integrated, produced a generative tension that allowed for the development of meaningful themes.

The third method of creating categories for data analysis searches for disconfirming evidence of the data analysis categories. A critical action for building credibility into the data analysis is for the researcher to challenge the emerging explanations and patterns; one way to do this is to look for negative instances of emergent phenomena (Marshall & Rossman, 1989). This approach builds balance into...
the researcher's focus. It ensures that while the researcher is attending to *what is*, she will also have a simultaneous focus on *what is not*. For each apparently meaningful category in the analysis, the researcher asked the question, How do we know when these categories are not present? During coding, a subcategory, "not," was assigned to data that were negative examples of a category. (Examples of disconfirming criteria for the the pre-established categories are found in Appendix A). Using the opposites of central concepts and themes, the extent to which the categories were disconfirmed as well as confirmed by the events in the setting was noted. By attending to disconfirming evidence, the findings are strengthened by creating a tension that reveals predispositions and filters, generates critical analysis, and solidifies findings.

In summary, this triangulated data analysis strategy enabled three cuts at the activity of coding the data. Although the three approaches were discussed separately here, they were not always conducted separately. For example, the act of searching for disconfirming evidence was almost always done in conjunction with coding that was category specific; and as noted above the researcher often moved between emergent and sensitizing concepts while coding data. The triangulated strategy created generative tensions that strengthened the analysis; (see Figure 3.1). While the tension between sensitizing and indigenous concepts challenged each theme in terms of meaningfulness to the setting, disconfirmation challenged those themes in terms of their strength and extensiveness in the setting.

![Figure 3.1 - Triangulated Data Analysis](image)

**Data analysis in action.** This next section elaborates on the strategy to describe how the process of data analysis unfolded in the research. The data analysis of this
research unfolded in stages beginning with an open frame and becoming more and more focused. The present data analysis moved through an initial surfacing of categories exploring the important themes emerging from the data, to a framed approach to the analysis looking at the whole of the sensitizing concepts and the indigenous concepts evident across all the data, and finally to the development of a set of coherent core themes. Even though these "phases" are discussed here sequentially, the data analysis activities engaged in in each phase were not necessarily separate and exclusive activities.

Management and analysis of the data was facilitated by qualitative data analysis software, Hypersoft. This program enabled the researcher to code transcripts and field notes in the computer and to retain the categorized data in files. The categorized data was filed by "databits" which could be sorted and retrieved by category, subcategory, respondent, and team, either singly or in combination with others. (For example, options for combining categories included: "x or y", "x and y", "x not y"). As data was being coded, a memoing feature marked the text and logged researcher inspirations. Flexibility in categorizing was enhanced by the ability to assign multiple categories to a databit, to assign subcategories data that was coded broadly, to search the data base for key words and phrases, and to store and revise category definitions and at the same time create a log of the development of those definitions. A particularly helpful feature was the ability to call up the surrounding text from which a databit was drawn; thus, it was possible to quickly refer to the contextualizing information for a databit that may have been categorized weeks before. Essentially, using Hypersoft was a substitute for manually compiling and sorting categories (as with index card systems), and for handwritten logs that would supplement the audit trail.

Initial coding and early activities. Strauss (1987) characterizes data analysis as an evolutionary process. One begins analysis early and what comes out of that shapes subsequent analysis. In order to ensure that participants' voices were heard, early activities took an open coding approach, temporarily setting aside framing the observations and interviews in terms of sensitizing concepts; (although it is not possible to totally clear one's mind of the concepts she brings to the setting, an attempt was made to attend to emergent themes). In this early phase, several activities recorded those themes that became apparent in the data as it was collected and transcribed.
First, themes and categories that emerged in action were noted for further inquiry. Sometimes the category was pursued at the moment it emerged; other times it was noted for future discussion. For example, it became apparent early that most respondents had some sense of what the future held for them as a member of the team; their talk about the future prompted questions in interviews about the potential of the team. Through this process researcher and respondent essentially co-created the new category, "vision."

Second, an interview summary sheet was completed after each interview. I used a copy of the interview guide to summarize key points that were articulated, were missing, and were volunteered independent of the interview questions. Although the interview guide was shaped by the sensitizing concepts, it also provided for respondents to voice their own central issues and meanings through the use of the question, "What else should I have asked you?". Therefore, as a summarizing tool, emergent concepts were highlighted whenever a respondent's theme did not fit within the framework of questions. The summary also served as a debriefing vehicle, provided a quick overview of the interview for later review, and helped to organize the data.

Third, interviews and field experiences were debriefed either immediately or at the end of a site visit; the debriefing occurred either alone or with the co-researcher and was tape-recorded. During the debriefing key themes and actions were noted, new interview questions were developed, and initial ideas were challenged. For example, the researcher began to reflect on her assumptions that had shaped the initial framework; she considered how some of them were grounded in her experiences, but not meaningful in this context.

Fourth, during the transcriptions of interviews, field notes, and debriefs, emergent categories were coded in the text, and patterns, themes, and cross-references were noted at the end. These notations facilitated later cross-check on researcher interpretations. These "gut-reactions" to the data were eventually contrasted to coding generated in subsequent readings of the data several weeks later.

Finally, all emergent categories were entered into the researcher journal in the form of memos, elaborating hunches or queries for future consideration. The journal proved to be a valuable source for prompting new questions for the participants, beginning this process over and over again!
Some of the themes, patterns and categories that emerged as dominant in these early analysis activities led to an early in depth search for confirming and disconfirming evidence of them. The first use of axial coding—intense analysis around a specific category (Strauss, 1987)—began even before interviews were completed. The following example illustrates how axial coding at this stage contributed to concept development. The concepts of "voice" and "choice" seemed to pervade the talk of team members. Nearly every respondent talked about the importance of having a say and having discretion. The pervasiveness of these issues prompted a search through interview data to find incidents of "voice" and "choice". This early detailed search revealed many ways to view the two categories. For example, they were articulated as values, they were discussed in terms of their boundaries, and they were viewed as outcomes as well as interactions. This early intensive search contributed to category development in two ways. First of all, it helped to refine the definitions of the two categories. Secondly, while the refining was in progress, it prompted a questioning about the categories themselves. What seemed initially to be central, broad themes, now also seemed to be connected to, or a part of, other themes. Choice was connected to autonomy, discretion and responsibility; I suspected that choice was a guiding value for the three. Voice had to do with speaking one's mind, but beyond that what seemed important was its reciprocal nature—its connection to respect, listening, mutuality. Both these reflections were noted in the journal to be pursued in later analysis.

As the early coding activities began to yield new categories, an important activity was my creation of a dictionary of definitions for the categories. Emergent themes were often named in the moment with whatever tag seemed appropriate at the time, and then refined later. With new themes popping out everywhere, I knew it was likely that I would not be able to recall two days from now, exactly what I meant when I coded a piece of data as "Team-ness." Typically, at the end of a coding session, I would log each new category and its definition. As illustrated above with the "choice" category, definitions often began as broad and general, and then became more specific as more data was analyzed.

In this first phase of data analysis each aspect of the triangulated strategy was engaged in, however the search for emergent themes received the greatest focus. I journaled my reflections on initial coding as being "a loose, free-form, anything-goes approach"—that is, knowing that the initial framework could be imposed on the data at anytime, I allowed myself to be open to any possible theme in the data, without
concern for things fitting together. Anything that was a theme was coded, regardless of whether it seemed "relevant" to the research framework. Coding was broad, sometimes vague, and sometimes overlapping. In this early stage, I was more concerned with the essence of the setting, than with the precision of the categories. Two things confirmed this approach for me. First, I noticed that the more data I coded, the more the categories tightened up. Second, I felt that in approaching the data this way, I was authentically honoring my intent to involve the respondents in the creation of the final product. By the time the interviews and observations were complete and transcribed for further analysis, I had the beginnings of a set of concepts that would contribute to sense-making in the next phase.

Analytical framework and systematic analysis. At the end of the formal data collection period, data analysis became more fine tuned. Two considerations were important: first, that the unitizing and categorizing now would become more rigorous and systematic, and second, that the sensitizing framework would begin to play a bigger role. To this end, a kind of overall framework or classification scheme was developed to begin a systematic process of fine-tuned coding (Patton, 1990). An integrative set of sensitizing and indigenous concepts was developed in order to guide the examination of the texts; an example of how this was used is discussed at length in the following paragraphs. This framework included any categories and themes that had emerged in the first coding phase, concepts brought to the setting from the literature, researcher experience, and initial research questions, and focal themes from the interview guide. At the same time this framework was guiding analysis, room was made for new categories that surfaced in the process. This second set of emergent categories was recorded in the same manner as discussed in the previous section.

The "core values" category provides a good illustration of how data analysis proceeded at this stage. Recall that the research plan proposed to look at core values both broadly and narrowly, using indigenous and sensitizing concepts. In the course of the interviews some values had begun to surface; for example, team members repeatedly stress the importance of hard work. As I began to code for core values, I attempted to be both general and specific, and to simultaneously attend to and ignore the values from my initial framework. I began by assigning to the general category "Values", all statements that talked about what is right, good, what ought to be, and what is important, as well as segments of text that illustrated what was meaningful to the respondent; (for example, one respondent's stories throughout the interview
reflected the importance of being able to demonstrate competence to others, although he never explicitly stated it as a value). With hundreds of databits coded as "Values", my next action was to name them. This activity called for concentration on what was said and the context in which it was said, as well as keeping an open mind so as to honor the diversity of the responses. Subcategory names were drawn from respondent words and themes, from the researcher's initial framework, and from Rokeach's (1979) values research. This process yielded over 20 subcategories, which were then used to group the data. Each subcategory group was reviewed to see if the databits were coherent. This process of naming and sorting was iterative; repeated readings through the data refined subcategory definitions, condensed subcategories, and generated new ones. The process eventually yielded data that was categorized under the broad category of "Values" and subcategorized into specific values.

Having arrived at a point at which the values were named, my next step was to identify those that were dominant both for individuals and for the team as a whole. The process of sorting through the values cycled between the group and the individual. Determining the strength of each value required balancing objective and subjective data. One way to discover important themes is to count the occurrences of each subcategory in the data; some subcategories occurred more frequently than others. Another way to identify key themes is more intuitive; nonverbal and paraverbal cues in the interview, and readings of the transcripts indicated that some values were very meaningful even though they may not have been explicitly stated. For each subcategory then, its number of occurrences were balanced against the context in which those statements were made. Then as another test, apparently strong values were compared to gut-reactions noted during the coding process, in transcript notes, and in the journal.

After I had coded each member's interview, I created a rough values profile for each respondent that illustrated his or her value framework. As a validity check, I went back to the interview summary sheets, where, following each interview, I had summarized key points, including any core values that had become apparent. Checking the values that emerged from the coding process against the values noted immediately after the interview, provided some confirming and disconfirming evidence of the strength of values that had been articulated.

In order to begin to discover values that were shared across the team, my next step was to look for values that seemed to be common among members. The objective
approach of counting the number of the team members that held a similar value was used, as well as attending to the context in which they expressed those values to see how consistent the meaning was across members. In addition, the values profiles illustrated the relative importance of a value to a team member; though each member might hold a particular value, the profiles showed that for some a value might be central, while for others it might be auxiliary.

At the end of this coding and analysis exercise, there were indications that some values may indeed be shared across members. The analysis, however, was considered to be incomplete at this time. Two more activities would yield additional confirming and disconfirming evidence of the strength of specific values. The next activity to be conducted was to submit the analysis to team members for member checking. In addition, the observation data was subjected to the same coding procedure to see if members expressed the same values in action that they did in the interviews, and lived those values. This initial procedure of coding, sorting, and verifying, produced a set of values that could be attributed to respondents and could somehow be connected across people; it contributed to the analysis going forward by clarifying, defining, and refining key themes.

The foregoing activity demonstrated how the three approaches in the triangulated strategy were carefully integrated in order to refine concepts. In addition to systematically identifying important themes, rigorous data analysis included a coding approach that contributed to making sense of the key themes in the context. Strauss (1987) suggested that categories used should do more that simply describe something; they should indicate the qualities, actions and interactions that make the data meaningful. He suggests using a coding paradigm for each major category, from which the researcher specifies conditions, strategies and tactics, consequences, and interactions (incidents, stories, examples).

One example of how Strauss' coding paradigm was put to use in this study was the systematic analysis of a particular emergent category. Upon categorizing the data in the interviews, it became apparent that throughout the interviews team members had expressed a theory about effective work teams. I considered that by contrasting their theory to those which appear in the literature (See Table 2.1), I might better understand their meaning of what it is to be a self-directed team. Using the emergent information that related to the team members' theory of effective teams, the data was first coded broadly as "EffTeam" for anything the team members said in reference to
effective teams; this included statements such as, "a good team is...", or "___ is what makes this team successful" or "we are a good team because ___" or "when we're doing well we are ___", as well as stories about the team's performance. These databits were then subcategorized according to the coding paradigm. For example, the statement, "you get motivated people, then a team will work" was coded as a condition; the statement, "...you get a team good enough, you practically think as one" was coded as a consequence. Those four subcategories were used to construct a representation of the team's theory of effective teams; (see Chapter 4 for a full discussion of this).

This analysis took Strauss' coding paradigm one step further, owing to the triangulated strategy. According to plan, any statements regarding ineffectiveness of teams were also a part of this categorization activity. For example, when members told stories of performance problems, disharmony on the team or producing bad product, the data were coded as "EffTeam"-"not", and also subcategorized according to the coding paradigm. This addition made the analysis even more meaningful. It seemed that members had as much to say about what constituted effective teams when they spoke about problems and failures, as they did when they spoke of the conditions, actions, consequences and interactions were part of teams at their best. Thus the disconfirming category enhances the Strauss' coding paradigm.

So far, the systematicity of the data analysis strategy has been discussed in terms of clarifying, defining, and refining key concepts, and in regard to making sense of those key themes. The focus of the next discussion is how the researcher can systematically know when to stop the data analysis process.

At some point in the data analysis process one receives signals from the data that the analysis can be taken no further. Data analysis reaches "saturation" when additional passes through the data yield little or no new meaningful information. Lincoln & Guba (1985) suggest four ways in which the data signals that the researcher can cease data processing: 1) when all sources are exhausted; 2) when additional data produce a small amount of information relative to the time expended to collect it; 3) a sense of regularities in the categories; and 4) that new information that emerges is tangential to the core categories. While Lincoln and Guba discuss saturation primarily in terms of the entirety of data analysis, it applies to category development as well. The following example relates the researcher's experience with and reflections on reaching saturation in a category.
The first experience with category saturation occurred with the coding of the Plant A team data. Plant A data's central quality was its divergence. Its key themes differed from those of Plant B; the data often failed to fit into the initial framework, essentially demanding recognition of its own emergent categories. Even within the team, data was divergent. On one hand, this divergence was exciting because the two teams' dissimilarity would make the findings richer. On the other hand, it became extremely difficult to make sense out of the massive amount of divergent data. For example, several times when I thought a theme had surfaced that cut across the team, I would discover that all members of the "rebel" shift and one person from another shift would share the view, but no one else expressed it, or that one person had extensively elaborated on a theme and others had briefly supplemented it. Consequently, in this data analysis, since I felt the potential for distortion was strong, I became very sensitive to who said what and how much.

An important theme that surfaced for the Plant A team was that once the team was named "high performance work team" things "fell apart". My gut-reaction noted in my journal was that this event was a turning point for the team. I expected that the data analysis would substantiate my response. Most team members had quite a bit to say about the differences between life before and after the naming, but in analyzing the data only two members had actually said "after they named us" things had changed. Because of the extent of divergence across respondents, I repeatedly returned to the transcripts to see what I had missed. I read them over. I read them in reverse order. I set them aside for days and came back to them. I coded for single categories at a time in hopes of gaining a different point of view. I listened to tapes again to see if paraverbal cues and context information would enlighten the coding process. At the end of multiple revisitations, I had little more of substance to add. I journaled my frustration, "all this time spent with this data and it just isn't coming together."

At this point I questioned whether I was at saturation, or whether I had inadequate data. I reflected on the data collection: Did everyone have an opportunity to comment on the naming theme? Should I go back to the two team members who had little to say about the theme and ask more questions in hopes of filling in the holes? While I was confident that each respondent had in fact been asked to talk about the team before and after becoming a team, I revisited the manner in which the questions were asked. I considered that the team members who responded strongly to the question may have done so because it was meaningful to them; and perhaps the
two members who had nothing to say about the theme indicated by their silence that for them it was not meaningful. If that were the case, going back and asking two respondents to talk more about naming the team, might do nothing more than force a response. At this point I made a decision that the data was giving me permission to write up the case as is. First of all, I believed that I had reached a point of saturation for this piece of data analysis because I had gone back to my sources repeatedly and had not found any additional new or relevant pieces of data. Secondly, listening to what was missing from the two team member responses, put the strength of the theme in perspective.

The second "phase" of data analysis systematically put to use each component of the triangulated strategy. Indigenous and sensitizing categories were integrated as a guiding frame for analysis; at the same time that frame was set up to be challenged by disconfirming evidence of any categories within it, and by any newly emergent categories.

Systematic analysis began with a rigorous sorting through the data of the interview transcripts and moved on to the observational data from team meetings and plant visits. The decision to proceed this way was made in order to move from the more simple to the complex. The interviews were less complex in the sense that they included only the talk of one participant and the researcher, whereas other data included more voices and more interconnected meanings. In addition, the interviews were a somewhat orderly set of data because they were loosely organized by the interview guide. Because of the influence of the interview guide, the interview data were embedded with the sensitizing concepts as well as emergent ones, so they could be expected to be congruent with the guiding frame. If they were not congruent, then the strength of the framework could be challenged. The observational data then could test the categorization scheme in another way; because the observational data were disorderly and divergent, and represented the actions of the team members, I suspected that they would be a great source of confirming or disconfirming information. (Here again, distinctions between data sources are not always this clear cut; for example, Plant A data was less orderly, and interviews and observations often merged.)

In the course of the iterative cycling between sensitizing and indigenous categories and testing their strength against contradictory evidence, important themes and their meanings in the context took shape. That themes could be called "important" was a result of multiple cross-checks— "triangulation"— of the findings; many findings
were substantiated across data sources and across time. Major attention was given to triangulating across the sources of data that had been generated by the various data collection methods. For example, statements made by participants in their interviews about their actions or the actions of others in a particular role, and their descriptions of what that role should be, were juxtaposed with their observed actions in that role; one source (the person talking about actions, and characterizing a role) was a cross-check for another source (the person in action). The extent of corroboration between the various sources of a theme indicated the strength of the findings. Another way that themes were demonstrated to be meaningful was if they held across time. This was observed to occur within two data sources: the participant generated data and the researcher generated data. Some themes, such as the need for information, emerged from the participants very early in interviews and observations and continued to come up throughout the observation period in new and different ways. Some themes buzzed around inside the researcher's head from the very beginning; some of these were never supported by later data analysis. However when the early gut-reactions noted in the journal, subsequent rigorous analysis, and the later review of the findings aligned, it was an indication that the theme was a meaningful one.

Data analysis in this phase employed a layering of triangulation strategies. Beginning with the triangulated data analysis strategy, and using the data generated by the various methods of data collection, the various sources of data were compared in relation to a particular theme. If themes from the guiding frame for the analysis held across the various sources and configurations of data, held in view of contrary evidence, and held across the duration of the research period, those themes were considered to be meaningful. This multiple triangulation of the data resulted in a set of findings that could be considered sound enough to generate a coherent set of core themes. (A more extensive discussion about triangulation follows in the next section.)

Coherence and meaning. The systematic data analysis of the previous "phase" made it possible for the findings to be grouped into meaningful and coherent sets. In the last phase of data analysis, coherence and meaning were enhanced by the triangulated strategy. Both the sensitizing and the emergent framework played a role in shaping the presentation of the findings. Disconfirmation could be addressed at a different level of detail; the findings could be critiqued as a coherent whole, and concepts that seemed to cut across the two teams could be challenged.
Just as the data shaped the categories and themes that emerged from analysis, so the data shaped the presentation of the findings. The vast differences between the two teams as portrayed by the data, prompted a focus on the particular issues, events, and experiences of each team. Thus, two separate chapters present each team’s story and key themes. The final chapter integrates the findings by highlighting themes common to the two teams, and by viewing the findings through the lens of the research questions.

Perhaps at this point the reader wonders, "What does reporting the findings have to do with data analysis?" In qualitative inquiry, data analysis often extends beyond the formal data analysis period into the writing of the findings (Marshall and Rossman, 1989; Patton, 1990). An advantage of the human instrument is that it continues to process the data through each encounter with it—be it initial analysis, or writing and reviewing summaries of the findings. In this research, themes that were common to the two teams were noted not only during analysis but also as I wrote and reviewed my document. It was not until very late in the writing that the common and important theme of accountability in a self-directed team came together. Once again the numerous iterations of researcher moves through the data was shown to be very important in shaping the findings of qualitative research.

Sometimes the key themes of the individual cases were firmed up by an iterative process that spanned the phases of analysis. For example, the clarification of Plant A team’s core value of commitment to production evolved through an extended analysis process starting with early data analysis, and encompassing member-check input, revisitation of data, and review and questioning of written findings. Initially my intuitive response was that the concept was not clear, but each move to cycle through the data one more time seemed to improve the clarity. Eventually, different encounters with the data and the analysis revealed a two beliefs embedded in the concept, which better articulated the core value. My experience indicates that one way a researcher can strengthen her findings is to revisit, review and question the key themes throughout all phases of the research.

The use of thick description in qualitative inquiry conveys the essence of the experiences, meanings and relationships in the setting, and sets up the interpretation of the findings (Denzin, 1989; Patton, 1990). In reporting the findings I used extensive description of my observations which were often interwoven with quotations and reproductions of team member discourse. The rationale behind choosing a quote, a
description, or the text of a conversation was based upon which approach best represented the theme being addressed. The decision to reproduce whole segments of conversations was made in cases where a single quote or a researcher's summary was felt to be inadequate. In other words, when the team members words provided the most effective thick description of what was going on, their words became the words of the dissertation. The use of whole texts of conversations is a way of giving the reader closer access to the interaction and meaning making of the team members. In addition, while the researcher has analyzed the data for fit within a theme, by presenting the text of the whole interaction in the findings, the researcher is inviting the reader to engage in analysis as well. Thus the reporting of the findings becomes an analytical event for not only the researcher, but also for the reader.

Trustworthiness

Lincoln and Guba (1985) argued that because naturalistic inquiry differs from traditional positivist inquiry and in its fundamental assumptions, its trustworthiness should be assessed using a different set of criteria. They proposed that the criteria of credibility, transferability, dependability, and confirmability replace internal and external validity, reliability, and objectivity. The following section uses Lincoln and Guba's trustworthiness criteria as a basis for demonstrating the soundness of the research. Each criterion and its role in the research will be discussed; then the specific techniques used to demonstrate that particular criterion will be elaborated.

Credibility

Credibility of the findings in qualitative research is a criterion similar to internal validity. In order to demonstrate credibility of the findings, the researcher builds into the research design, practices that increase the probability that the findings will represent what's going on in the setting, and that seek concurrence between the researcher's reconstructions of multiple realities with the original constructors of those realities. This research used the techniques of triangulation, member checking and peer debriefing to address credibility of the findings at several levels. Triangulation is a check on the accuracy of specific data items and on the precision of the data analysis. Member checking is a check on the accuracy of researcher's overall representations of the events and experiences in the context. Peer debriefing is a check on the researcher's inner processes and thought patterns influencing the conduct of inquiry (Lincoln & Guba, 1985).
**Triangulation.** Triangulation is the process of checking each piece of information against at least one other source (Denzin, 1989; Lincoln & Guba, 1985). Triangulation opportunities were built into the research strategy at every turn; triangulation between data collection methods, between and within data sources, and within the data analysis occurred simultaneously and throughout the research process. Triangulation of events across time and levels provided a systematic strengthening of credibility of the findings.

*Triangulation of method* occurred in the use of participant observation, interviews, and documents and artifacts. As noted earlier, these three methods provide three different constructions of a piece of information. The following example, drawn from the analysis of core values illustrates how triangulation of method added credibility to a piece of data.

In the course of team member interviews, observations in team meetings and in the plant, and in reviewing team documents the core value of "fairness" emerged. In the course of the interviews, 75% of the respondents explicitly stated that fairness was desirable, right, worth fighting for, and more indicated this indirectly. I observed team members enacting a value of fairness in several situations. For example, one decision making event in a team meeting centered around determining criteria for retaining and releasing temporary workers, given the move from three shifts to two; on this occasion a major concern was finding a solution that was fair to all. Team documents also indicate the fairness value in action. When I reviewed the minutes of team meetings since the team's inception, and before I arrived, it was apparent that the secretary's position was rotated so that the taking of minutes was fairly distributed across the weeks. In this example, the value of fairness was triangulated across three different methods.

The extent to which the fairness value was triangulated across methods was also important. The viability of fairness as a shared value was amplified by the depth of occurrences of the fairness value across these methods. For example, there were many more observations of the fairness value in action, and it was articulated in the interviews in many ways. In addition, the three methods enabled data to emerge from several levels: temporal levels (past, present, and future constructions of the data); experience levels (data experienced in the first, second and third person), and personal levels (inner beliefs and outward actions). Triangulation of method allows for repeated occurrences of a piece of information across multiple dimensions, and
increases the possibility that disconfirming data will emerge as well. Thus, the flow of multiple streams of data through the diverse methods built the foundation for the credibility of the findings.

*Triangulation of sources* involves using more than one data source to verify data. Triangulation of sources can occur by using different types of sources to verify one item of data or by using "multiple copies of one type of source" to generate data (Lincoln & Guba, 1985, p. 305). The multiple data sources in this research were articulated earlier; several configurations for triangulating data sources are discussed in the following paragraphs.

Using different types of sources to verify the same information can point to the relevance of that information. Data that was coded as indicative of a shared value of "fairness" came primarily from the team members, but it was triangulated by management and the researcher journal as well. The plant manager and Vice President of Human Resources were observed to act to honor this value in their initial request to ensure that no one received disparate treatment in the course of the research. The facilitator explained how team meetings were rotated through each shift in order to be fair. The researcher journal document fair and unfair interactions between team members and non-team members. The correspondence of a concept between, or across, data sources, the greater increased the likelihood that the concept was meaningful.

Triangulation of data using "multiple copies of one type of source" can be construed in several ways. "Types of sources" in this research were co-workers on a shift, members of a team, members of all teams, or all members of the organization, depending on the reference point of the data. Continuing the "fairness" value example, nearly every team member talked about fairness in some form; for example, one person talked about trying be fair to the temporaries by rotating them through different tasks, another team member complained of not being treated as an equal by fellow team members, and another asserted that "everybody deserves an opportunity to give their input and on this team they have it". In this example the category "fairness" value has been strongly triangulated across sources of the same type.

Triangulation between and within sources can enhance credibility when used jointly. For example, one theme of interest in the research is how members of a team give and receive feedback. In both teams, a pattern of using banter as feedback was observed. Not only did similar patterns emerge across members of the same team
(within source), but those patterns were also present in both teams (between source). In this case, members of a single team are "multiple copies of one type of source," and the two different teams qualify as different types of sources by virtue of their specific contexts. This theme was made more meaningful because it was substantiated across and among sources.

When considering participants as sources of data, the distinctions of within- and between-source triangulation may be blurred. Participants are simultaneously similar and different; a work team member and a manager are different sources in regard to their roles in the organization, but single sources as associates of Omsco. Members of a single team are similar sources by virtue of their team membership, but different sources when viewed in terms of their shift; this notion was particularly salient in Plant A, where team members saw the shift as being more of a team than the official team. Therefore, the attempt was made to verify data both across and within sources. Clear identification of the source group has been made throughout the findings.

In sum, triangulation of sources verified data by comparing and contrasting participant responses against each other and against sources different from the participants. That source triangulation occurs within the wider frame of triangulation of method, means that the data that ultimately emerge do so under great scrutiny. In addition, the research design included a triangulated strategy for data analysis. As discussed earlier, the strategy emphasized elaboration of data relevant to the conceptual framework, emergence of embedded and unknown data, and exposition of opposites that disconfirm data. Through triangulation, the findings gain credibility because of the systematic and rigorous examination of the data throughout the research process. However, it must be remembered that data triangulation is an activity that engages data from a setting in which realities are assumed to be multiple and socially constructed. Denzin (1989) cautions that data triangulation will always be indefinite and open-ended, and will seldom present a single "objective" representation of the situation.

A unique opportunity for triangulation arose from the presence of a co-researcher in the setting. Investigator triangulation adds credibility to the findings when two researchers in one setting maintain a line of communication that can be used as a continuous cross-check of data. Simply put, by sharing our observations with each other, we had the potential to question and strengthen emergent categories, and generate additional categories for analysis. Lincoln and Guba (1985) point out that
investigator triangulation should not be confused with replication. First of all, replication is incongruent with the assumptions of naturalistic inquiry; since the researcher and participants create relationships and mutually influence each other, it would be impossible for two researchers to have the same experiences, such that corroboration would be possible. Secondly, as pointed out earlier, the co-researcher is pursuing a different set of research questions than those of the present research. Rather than being considered here as a central ingredient in the triangulation strategy, investigator triangulation was viewed as another opportunity to enhance the findings of the study.

**Member checking.** Member checking is a continuous process of verifying with the participants in the setting, the researcher's representations of their realities (Lincoln & Guba, 1985). There were many points throughout the research process at which participants were asked to assess the accuracy of researcher interpretations of the data. In this study, member checking played a key role in building credibility in data recording and subsequent data analysis, and in the final report.

Earlier it was noted that some data recording took place following data collection events. Recording events after the fact increased the possibility of omissions and distortions. In these instances, participants were asked in the next session to clarify and elaborate on points in question. In addition, the co-researcher could also be asked to use her field notes and reconstructions of events for additional verification. By checking the accuracy and completeness of field notes, a stronger pool of data for analysis was created. As data analysis began, emergent themes and categories were also played back to the participants; again they were asked to confirm or disconfirm the researcher's construction of events and experiences in the setting.

The process of carrying out member checks illustrates research as action. This research has been presented as one in which the researcher and participant create learning together. The act of openly sharing information through the member check is one way researcher and participants learn together. Had members indicated how items and experiences could have been better represented, the researcher would have learned more about the people and the context; at the same time, the information being checked was feedback that had the potential to expand participant learning. All member checks were seen as potential action generators. As noted earlier, when the team members were given a document to member check, they were asked to check not only its accuracy, but to consider some questions that the researcher posed. While one team
member actively engaged the document, others simply gave positive feedback that gave no indication that the document had been an action generator; for example, "This is very good. You ...done a real good job on this. It has been fun having you around. You got right to the point of things that are going on with the team. Good Job."

In summary, member checking was a part of this research both informally and formally. Asking clarifying questions of participants, integrating member checks with conversations, using the co-researcher as a cross-check, and presenting compiled data in written form for verification are all forms of member checking that was used in this research. The activity of member checking is congruent with the beliefs of openness and learning that guide this research.

**Peer debriefing.** Peer debriefing establishes credibility by providing the researcher with a forum for surfacing inner thoughts and feelings regarding the research (Lincoln & Guba, 1985). The researcher talks through any and all facets of the research, such as the data, suspected patterns, methodological issues, ethical concerns, in the presence of a person(s) who is outside of the research setting. That person's responsibility is to listen empathically, challenge and question concepts that are unclear, introduce alternative perspectives and engage the researcher in a self-reflective to reveal assumptions. As a co-operative inquiry group, AdVenture Group has demonstrated the skills necessary for peer debriefing, and provided a near-perfect opportunity to cycle through most facets of the research. In one instance, a group discussion of "Team-ness" and of socio-economic values served as a debrief, an idea testing ground and a revisitation of researcher assumptions. However, AdVenture Group's connection to the working hypotheses of the study is both a benefit and a limitation here. While its perspective on the emergent data would be guided by a deeper understanding of the research questions, its stake in the findings means that it cannot view them in a disinterested manner. Therefore, AdVenture Group played a limited role in peer debriefing, focusing more in the areas of methodological, ethical, and procedural issues, and less on data analysis.

**Transferability**

A criticism of qualitative inquiry has been that it lacks generalizability. Advocates of the naturalistic paradigm argue that no research is truly generalizable, that all statements of findings can only be made relative to the social, historical, and temporal context from which they emerged (Lincoln & Guba, 1985; Patton, 1990).
Generalizability may not always be a goal of research (Bogdan & Biklen, 1982); in the case of the present research, context specific understanding and knowledge in action are the goals. These two goals are best served by an idiographic approach which emphasizes the interpretation of data based on the specific experiences, events and meanings in the setting, and which ultimately results in thick description of findings.

"Transferability" is naturalistic inquiry's equivalent of external validity. While it is not the task of the researcher to determine whether or not the findings apply to another setting it is the researcher's job to provide thick description of all the important events, experiences, and interactions so that anyone wishing to use the findings in another context will have sufficient data in order to make decisions about its applicability (Lincoln & Guba, 1985). In this research, thick description is manifested in the extensive use of quotes, stories, and details from life in the work teams.

**Dependability and confirmability**

"Dependability" is the trustworthiness criterion that replaces reliability. Replication of the findings is not possible since they are context specific; instead the researcher demonstrates that the way in which the inquiry was conducted was systematic and rigorous (Lincoln & Guba, 1985). Dependability is demonstrated in an audit of the process. "Confirmability" replaces objectivity. The hallmark of naturalistic inquiry is that the researcher is not objective but rather involved and immersed. Demonstrating researcher objectivity is incongruent with the assumptions of the research paradigm; however, if one can demonstrate the soundness of the data, the findings, and the interpretations the trustworthiness of the research will be enhanced (Lincoln & Guba, 1985). Confirmability is demonstrated in an audit of the product.

Demonstrating dependability and confirmability relies on use of an "audit trail," (Lincoln & Guba, 1985). The audit trail is a compilation of the researcher's detailed record keeping. Included are records of processes and procedures, complete records of raw data including field notes, audio tapes and transcripts, documentation of data reduction, analysis and reconstruction, and researcher journal of thoughts, reflections, analytical memos, decisions and interpretations. By retracing the audit trail, an outsider could follow the same processes to create a similar product from the data on record.

The researcher journal is a way of documenting experiences, insights, decisions, and procedures that affect the conduct of inquiry (Lincoln & Guba, 1985).
The journal is log of method, of activities and of self. In the journal, such things as methodological decisions and justifications, analytical memos, and schedules are recorded. But the journal is also a place to record what is happening inside the "human instrument", including interpretations, biases, intuitive flashes, fears, mistakes, and breakthroughs. The journal facilitates reflexivity in the researcher and confrontation of issues important to the trustworthiness of the findings.

In summary, the trustworthiness of this research was built on the use of several systematic and rigorous techniques designed to ensure that the findings represent what is going on in the setting, that the representation is described "thickly", and that the inquiry process and product are clearly documented. Linking all of these together is the researcher journal. The researcher journal is an ongoing inquiry into the inquiry; reflections on methods, self, and emerging findings are not only documented, but become part of a continuous cycle of reflection and action in the course of the research.

Reflections on Ethical Concerns

Researchers engaged in field research have a responsibility to conduct that research in an ethical manner. Issues of informed consent, voluntary participation, respect for the participants personal concerns, the presence of an outsider in the setting, and reciprocity must be addressed to ensure that the researcher is mindful of ethical considerations at all times. Ethical issues were addressed throughout the conduct of this inquiry by maintaining open dialogue with the participants, by reflecting continuously on the process, and by asking questions when questions arise. This section offers some examples of and reflections on how this researcher engaged ethical concerns in the course of the research.

In the spirit of self-directed work teams, Omsco management agreed to the research proposal on the condition that the teams agreed to participate. Informed consent was obtained by meeting with the team members. Participants were informed of the purpose of the research, their role, the possible outcomes of the research, the intent to preserve anonymity and confidentiality, and the methods to be used for verifying the findings. Through this discussion, emphasis was given to the intent to be respectful of each person's needs and requests throughout the research process. In addition to discussing the proposal, team members were given a written outline of what was proposed (see Appendix B).
Lincoln and Guba (1985) argued for being fully open with the participants regarding the steps to be taken to avoid putting participants at risk, and the possibility that some risk will always be present. Confidentiality cannot always be guaranteed; Lincoln and Guba cite detective work on the part of curious readers and court subpoenas as examples of this. A similar ethical dilemma arose at the time of the member-check; momentarily, research credibility was put in opposition to honoring confidentiality. The intent of the member-check document was for team members to verify the accuracy of researcher representations of the team from the interview data; the document told the story of the team by stringing together team member responses, observed behaviors and often quotations. In writing the document I was careful to alter references to shifts, other team members, and gender so as to disguise member comments. However, it was clear to me that with a little detective work the speakers could be identified, either by the nature of their remarks, or by their patterns of speech. In the final reading of the document, I scrutinized it for any statements that looked like breaches of confidentiality. In this resolving this dilemma, I also called upon the co-researcher for a "second opinion."

Even though the data and interpretations are member-checked before presentation in the final report, the possibility still exists that other interpretations can be constructed. A researcher's ethical obligations are to take all the necessary steps to protect anonymity of sources and verify findings, but the possibility still remains that participants could find themselves at risk in some way. Therefore, Lincoln and Guba (1985) argue that participation should be voluntary and participants should have the right to withdraw without adverse consequences.

Safeguards for maintaining confidentiality and anonymity were built into the research process. Interviews began by reminding respondents that everything shared in the interview would remain anonymous, that confidentiality would be honored, and that they also had the choice to comment off the record or decline to answer a question. Each respondent was assigned a code so that all copies of transcripts contained no indication of the respondent's name. Information provided by one respondent was never shared specifically with others. However, because these interviews were often generative activities, sometimes ideas that were surfacing across interviews were presented to team members in general terms. For example, the researcher asked, "Some team members have said that different people perform the MMI job differently. How would you respond to that idea?"
Voluntary participation was an important issue in this research because some of the team members, upon hearing about the research, expressed their desire to not participate. In the course of meeting with team members it was important to ascertain, what was meant by "not participate". Did it mean that members did not wish to be interviewed? Or did it mean that they preferred never to be in the presence of the researcher? The difference would mean whether or not research could be conducted during the second and third shifts in Plant A. Conversations with team members revealed that the interview was the biggest concern. In the end, seven out of eight members of the Plant A team agreed to interviews, and were engaged in the observation period as well. I had two ethical concerns for the eighth member. The first was that my observations of his shift might make him an involuntary participant. I made an effort to respect his space and privacy, yet there were times when he was present when I was talking to his fellow team members. Occasionally, he would enter the conversation, and other times he would disappear. A second ethical issue concerning the eighth member, was that while he had stated that he did not want to be included, I believed that my actions should never exclude him from any activities with, or information given to, the other team members. Therefore, when I surveyed team members for feedback, and when I distributed the member check document, he received a copy with an invitation to provide feedback if he chose.

An ethical concern that was addressed in the early negotiation for the site was the impact of an outsider in the setting. Since the plant ultimately must produce its product and get it to the market; if the researcher were to interfere with this in any way, either by obstructing the work flow or by disrupting the interpersonal dynamics, the benefits associated with the research could be called into question. That interpersonal dynamics could be altered by the presence of someone who is listening to and recording the dialogue of the group was an ethical, as well as a methodological, concern because of the potential for unnatural behavior to negatively affect group process. Two members indicated during one observation that perhaps they had been acting somewhat reserved in my presence; they joked, "Would she be offended if we act normal?" Team members who gave feedback on the presence of an outsider in the setting, generally stated that there was no negative impact, and some indicated that they enjoyed it. One member's comment, "...you stayed out of the way when we had to move quickly." helped to allay my fears of interfering with the business.
Responses to the presence of a tape recorder were rarely negative. Many people were in the habit of openly voicing their opinions; as one member put it "I wouldn't say anything to you that I wouldn't say to anybody else." Sometimes people seemed to glance nervously at the recorder while they were talking, but when I responded to their non-verbal cues and asked if they wanted it turned off, they said no. The tape recorder became the center of many jokes among team members. People teased each other, "Be careful what you say, you're being taped", and joked about having each other's commitments on record. On the rare occasions that people wanted to make a remark off the record, I learned that the phrase "Is that thing on?" was my cue turn it off.

An outsider's lack of familiarity with the culture of the company or the work group may unwittingly lead to doing something incongruent with company objectives. This concern was discussed early the negotiation process. In anticipation of this possibility, management requested an equalitarian interview process, and offered opportunities to learn the insider perspective through plant tours, safety training, a work day in the plant, and exposure to supporting departments. In addition, I sought out opportunities to understand the company's ways in interviews, by collecting news letters, and by engaging in informal conversations with as many different people as I could. In general, associates were very open to sharing their company with an outsider. Only once was I denied access to information; I later learned that my request to observe a meeting between company executives and team members was denied for largely strategic reasons.

Another outsider issue is related to researcher role. Omsco management requested that the researcher provide feedback as data is collected; in addition, the methodological perspective called for this. A concern prior to engaging in the research was that feedback from an outsider could be construed different ways, and that the researcher would have to conduct herself in a way that invited requests for feedback. In the course of the interviews and observations team members indicated their willingness to accept feedback from an outsider by asking, "What do you think of our team?", "What have you observed?", and "How do you see us as different from the other team?" At the same time, my question to them was, "What information do you need that will help your team?" Collaboration with the participants on information sharing ensured carrying out this role in an appropriate manner.
Sensitivity to how one balances participants' contributions (time, information, tolerance, interest, involvement) with the benefits they derive from participating, should be included among the ethical concerns of the researcher. Although it is often difficult to determine what constitutes a fair exchange, researchers can address reciprocity issues by treating participants respectfully, honoring promises made, and fulfilling obligations and expectations created during the course of the research (Glesne & Peshkin, 1992). In addition to exercising common courtesies with the participants and treating them respectfully, I believe that one of the most important elements in the exchange was my listening. My listening made each team the center of attention, provided a place to articulate their ideas and their visions, and gave people a place to vent their frustrations. As one team member expressed,

"...having you around at times helped ease some of the frustrations that have come up with the implementation of the team concept. Having someone to listen open-mindedly to our concerns and complaints even from the outside helped a great deal"

Reciprocity occurs when promises made about what will happen in the course of the research are honored. At Omsco, the submission of the proposal and subsequent discussions with team members and management articulated the reciprocities that would occur in the course of the research. As can be seen in the preceding paragraphs, promises about the conduct of the inquiry were clearly honored. Promises about the content of the inquiry were kept as the research focused on communicative actions. Promises about the context of the inquiry were kept by the willingness of the Omsco associates to open their world to the researcher. Promises about the consequences of the inquiry—the dissertation and final report—yielded findings that were co-created by the participants in the setting.

The methodological view that the researcher should be immersed in the setting, and that all persons involved in the research are co-creators of knowledge, creates a closer relationship between researcher and participants, and in the course of the research, obligations and expectations may be created from that relationship (Glesne & Peshkin, 1992). Expectations created in the relationship between the participants and me were a key concern because of the nature of the relationship. I developed a great deal of respect for the team members, not only in terms of who they were as persons, but in terms of their wisdom as well. I sensed from team member responses—personal disclosures, willingness to share stories off the record, and reciprocal information
sharing—that the team members had developed trust in me. Attempts were made to sustain the quality of the relationship by walking my talk; I made note of any promises or requests and followed through on them. In addition, by engaging in ongoing dialogue and debriefing with team members, expectations could be clarified and addressed.

The approach to ethical issues in this research was to reflect on concerns and to address them in dialogue with participants. This approach is congruent with the underlying assumptions of this research; that is, reflection on, and dialogue about, ethics generates ethical action.

Limitations of the Study

This research, by its focus, excludes certain factors. While acknowledging that self-managed work teams are sociotechnical systems, the focus of the research concerns itself with social aspects of teams. The emphasis on the talk and action surrounding work teams considers technical factors as part of the context. So this research neither focuses simultaneously on social and technical factors as sociotechnical theorists would call for (Trist, 1981), nor attempts to respond to those who have called for models that include the many variables associated with work team performance (Pearce & Ravlin, 1987). Rather, the research provides a balance to the bulk of the self-managed team literature that emphasizes the technical and followed by social considerations (Hackman, 1986; Manz & Newstrom, 1990).

Because the study is focused on two teams within a single organization, the findings of the research will be influenced by factors unique to that context. For example, the company is growing and financially healthy. It has a history of associate involvement. Its work force is non-union. It has a large number of associates with long length of service, yet some of the current change agents have been with the company only 1 to 5 years. How associates at Omsco respond to teams is influenced by these and other factors. The findings of the study have direct implications only for the participants in the study. Whether or not the findings apply to teams in other settings is a matter for persons in those other settings to decide, as they consider the similarities and differences between their contexts and that of Omsco and its teams.

The three-month time frame within which the study was conducted raises questions about the extent of the findings and the trustworthiness of the "human instrument". In view of the length of time required for work teams to become fully
self-directing, the duration of this research imposes limitations on the findings. Work teams develop into self-directed work teams over a period of two to five or more years (Glaser, 1992; Manz & Newstrom, 1990; Orsborn, et al., 1990). The data collected reflect only the stage(s) of development in which the work teams were operating during the three months of data collection. The findings then must be interpreted within this limited time period. The study therefore cannot claim to be an extensive study of work teams from birth to maturity; what is represented is only a short segment in the life of each team. However, because those two teams were at different stages of development, some breadth is added to the findings of the study.

Lincoln and Guba (1985) suggested that credibility of findings is enhanced with the researcher’s prolonged engagement in the setting. The researcher must spend enough time with the site to gain a sense of the experiences and the meanings in the context, to allow for her own presence to no longer be a distraction, to build trust, and to allow for distortions in the data to surface. A legitimate concern is whether or not a three month period is sufficient time for these things to occur. In the previous section it was asserted that the researcher’s presence was welcome, that she did not interfere with or distract people from the process, and that she was trusted by the participants. However, one cannot know how the extent of trust would change if the researcher was present for a longer period of time, or whether more contact time would have surfaced irregularities in the themes that surfaced in three months. Future research may follow up on these concerns; the researcher continues to attend team meetings and may do another in-depth study in the future.

Context factors also imposed limitations on the study. Immersion in the setting in order to understand events from the inside was limited by the accessibility of the work life of team members. Researcher entry into the setting coincided with the peak production period, during which teams worked seven days a week, 24 hours a day. The teams’ primary focus was on production output. For team B, production priorities coupled with the need to learn a new repertoire of skills—to learn to be a team. While these circumstances provided an excellent opportunity to observe team member dynamics under all the pressures of their jobs, events that give the researcher access to the inside, such as working alongside a team member in the plant would have required that people temporarily turn their attention away from production. The tension between sensitivity to the goals of the business and the belief that the research can contribute something to the business generated in the researcher a heightened
sensitivity to potential moments of immersion. Although it was possible to find at each data collection experience, opportunities to learn life on the inside, the opportunities were not the same at every data collection experience. Therefore this research cannot claim to be conducted from the perspective of a full participant on the team; instead, the extent of participation was as a trustworthy observer and part-time participant.

Another context factor affecting consistency of observation is the difference in plant processes. These differences meant that the two teams were accessible in different ways at different points in time in the process. "Shadowing" team members was more effective in Plant B because the plant was larger and there were a greater number and variety of roles; consequently, team members could be followed around the plant, and a greater number of interactions could be observed. Plant A is a small plant and its team has fewer members; so not only was following team members impractical, but there was less differentiation between roles. Observations in Plant A often turned out to be conversations with team members as they monitored the process, rather than a shadowing of activities. Differences in process also meant that activities that could be observed on one team, could not be observed on the other. While team B held regular team meetings, team A asserted that its process prohibited them from having team meetings. That the Plant A team did not have team meetings for most of the observation period, meant that certain interactions could not be observed; these included decision making actions, acts of emergent leadership among team members, the interplay of values and communication across the whole team. That the diversity of observations was greater in Plant B than in Plant A is a limitation on the size of the data pool from which to draw conclusions about teams in general at Omsco. However, these differences do not severely limit the findings for the individual teams, because they represent the real world of the teams; these differences vividly illustrate the importance of context in understanding teams, and the need for idiographic research on teams.

The interplay of time in the setting and context factors point to a limitation of the data which was collected. The findings reflect that the event of becoming a high performance work team changed life as the team A members knew it, and amplified tensions on the team and between team members and management. When I entered the setting, those tensions were at their peak. Thus, the data that I collected was influenced by the state of the team at the time. Whether or not certain issues and
themes were supplanted by the burning issues of the moment, is unknown. That the data may reflect only the team members' point of view at that moment in time must be considered as limitation of the findings of Plant A. On the other hand, it is the nature of qualitative inquiry that any data collected is a reflection of the moment; as a result, inquirer does her best to portray the context from which that data emerged in the reporting the findings. Therefore, while it must be noted that Plant A findings reflect the tension that was present during the observation period, an important learning is how the tension reflects the nature of the team in a particular context.

Summary

This chapter addressed the methodological issues of this dissertation. It began by articulating the underlying ontological, epistemological, and methodological assumptions of the research and the rationale for the choice of methodology. The choice to conduct interpretive research was justified by its coherence with the research problem; specifically, it was shown to be congruent with the theoretical foundation of sociotechnical systems, with the focus and purpose of the study, and with the researcher herself. A research strategy, influenced by the naturalistic and co-operative inquiry approaches, was discussed in detail, and extensive examples of the conduct of data collection and analysis were given. Next, the trustworthiness of the research was demonstrated in accordance with Lincoln and Guba's (1985) trustworthiness criteria. The research was demonstrated to be credible by virtue of its extensive use of triangulation, and its use of member checking and peer debriefing. Transferability is supported by the use of thick description in the findings. Dependability and confirmability are facilitated by the extensive documentation of the processes used to get to the final product. Finally, researcher reflections on the research in terms of its ethics and limitations were articulated.

The next two chapters present the findings of the study as they emerged from the data of the two teams. Findings from the two cases are discussed in two separate chapters. I allowed the data to write the chapters; that is, the emergent themes in the talk of interviews and the observations of team member interactions guided how the findings would be organized. The organization of each chapter then stands as a monument to the differences between the two teams. Team member comments were used liberally to illustrate the themes. Comments are presented both as direct quotes, in summarized form; in some cases, minor changes have been made to protect the
anonymity of participants. The use of the comments of team members was done with respect for a view that was heard repeatedly: a person's words reflect his or her views only, and the shared views of one shift collectively do not necessarily reflect those of the other shifts. Therefore, care has been taken to be specific about the breadth of a particular view. In Plant A, seven out of the eight team members agreed to participate in the discussions with the researcher; whenever views are referred to as being shared across the team, the reference is to the group of seven members who participated in the study. With these details articulated, the reader is invited to meet team B and team A.
CHAPTER IV
FINDINGS FROM PLANT B

A true start-up team, the Plant B team was assembled as a part of the strategy for starting up a new plant. Team members were selected for their teamwork abilities, as well as their expertise demonstrated in various departments in Omsco. This chapter chronicles the team members' tales of the history, experiences, and interactions of the team in these early days as a team. The following sections report what members said and did in regard to the formation of the team, team actions and experiences, a vision of the future, and expressed needs of the team. Key themes addressed include, the need for information, the importance of core values, the use of effective communication, and the connection of talk and action.

Exploring a Start-up Team

Forming the team

In order to inquire into factors that triggered decisions to become part of a self-directed work team, interviews typically began by asking some form of the question, "Why did you join the team?" Follow-up questions were asked in order to gain some sense of the events leading up to actually becoming a team, including what communications took place before and during the interview process.

In general the concept of a high performance work team had little to do with people's decision to bid for the job. While some people indicated that the idea of having no supervisors was appealing, that was not their primary reason for bidding. Instead, reasons included:

- to move to better working conditions; a new plant was likely to be a cleaner plant.
- to get out of a boring job, and for the excitement and challenge of working on something new.
- to make more money.
- for the opportunity to learn new things; (computers were often mentioned).
- to get on a more desirable shift.
That people did not bid for the job in order to be a member of a self-directed work team may have had more to do with the fact that they did not know much about the team concept prior to becoming a team. Given their work experiences and repertoire at the time, prior information about teams meant little, or made little sense. People began to get information about the responsibilities of being on a team in the interviews, but many expressed that it wasn't until they got into the training classes and onto the team that they really learned what the team concept was all about.

"I didn't really know anything about the team concept, up until I went to the interviews."

"I actually accepted the job not knowing a whole lot about high performance work teams..."

"The team concept is so new that no one could really tell you what it was all about."

"...we didn't know what to expect..."

So team members entered a somewhat ambiguous situation.

The interview process included a number of interviews conducted by people from Associate Relations and by members of the Plant A team. In the course of the interview, candidates learned about the general activities and responsibilities of the work team, that the team would have no supervisors, and that team members would receive training to learn to be a team.

The team trained for two months before they began to run the plant. A segment of this training which many called "good" and "helpful" was the team building skills training. Team members noted the benefits of this training to be:

- getting to know people and learning about each other
- learning how to work with people
- learning how to effectively bring up problems, both with tasks and people
- learning problem-solving
- learning to learn from others
- learning about self

When team members reflected on their early training, they gave examples of how it is both being used and not being used. Some members told stories about how they have been able to draw on the training when they were in a difficult situation that required them to be tactful. Some noted that while some techniques were doable in the training sessions, the pace of the operation often made it difficult to actually carry out a
technique in real time. For example, one member mentioned how it was impractical to
go through the entire problem solving process when a problem on the floor required
immediate action; sometimes people had to just go with their best hunch rather than
following the process step by step, and sometimes the decision would be made among
only the people present in the moment of action, rather than the entire group.

Several people commented that, once on the team, not only did they discover
that it was very satisfying, but also they speculated that once people had experienced
being on a team, they would not likely want to go back to their former structure. Team
members talked extensively about what they found compelling about self-directed
teams. For example, team members found satisfaction in the opportunity to
demonstrate their competence,

"I know how to do the job. I've got a lot of years; I don't need somebody to
tell me."

"...that made me feel good that... I'm not just a grunt out on the floor. I'm
accomplishing something."

"And at the end of the day it was a feeling of major accomplishment."

"...Just the satisfaction that I'm doing a job that, ... I feel like nobody could do
it as good as I can do it. Or nobody's gonna put out that extra effort that I
put in."

"For some people, like me, I think they like the challenge, they really like the
challenge, to be able to master it."

"A challenge... I like to blow them away! I mean, that'd be awesome."

"I can come over here and really contribute, not just stand at the end of a line,
and skid bags all day, really contribute."

in the opportunity to make decisions, to have a say, to be their own boss,

"...another thing I like is I don't have someone to look over my shoulder...management sits back and lets the team go."

"I thought it was real good because management was letting the team make
decisions"

"...you have a say for what we're gonna do over here."

"...you're not working under somebody, it don't feel like. Pretty much do
what you want, get your job done. Not someone standing behind you
and making sure, telling you what to do."
"The responsibility... I got a lot more responsibility than I ever did...I don't have a supervisor, great, you know."

"I really like working here because of the... responsibility that you have."

"I kind of feel important now...like, when I had to get a fishing license... whenever they ask for occupation, I put supervisor.... so that's kind of a lot.... I mean, (I) just like my role."

in the opportunity to grow and learn,

"I like learning. I love learning."

"...so you learn that, and it's something else every day. And, I like that. The more I learn, and the more I can do, the better I like it."

"I enjoy the people; you can really see them grow. The people in here didn't know how to turn on a computer, and now we've got like 6 of them that's gone out and bought computers. Taking courses. Yeah it's exciting."

and in the way that they felt about themselves:

"It's the best move I've ever made."

"I have more respect for myself now; I'm not just a number over there; so, you know, I can make a difference here."

"...Just that satisfaction that, you know, they really need me. I'm really not just a part of a team, but I'm a valuable part of this team. It makes me feel good about myself and the job I'm doing."

In summary, the Plant B team members found their early experiences with team to be rewarding and energizing. However initially, the idea of being part of a self-directed work team had little to do with people's decision to bid for the job; a change of conditions, a new learning challenge, an improvement in pay-grade or shift, were the primary motivators behind people's decisions to bid for the job. People who joined the Plant B team entered an ambiguous situation. Although the interviews had briefly characterized high performance work teams, members had only a rough idea of what the experience would be like, and really learned about teams by being a part of one. Generally they reported that once on the team they found it to be satisfying for a number of reasons; members cited the opportunity to demonstrate their competence, the opportunity to make decisions, to have a say, to be their own boss, the opportunity to grow and learn, and their feelings about themselves as factors that they found attractive.
Plant B in action: The team experience

Understanding of the team experience was shaped by first listening to what team members had to say about it. Typically, questions about the formation of the team were followed by a series of questions that asked team members to talk about the team activities, processes and experiences. For instance, questions such as: What is it like to be a member of this team? What do you do? How do you make decisions? How do you determine who does what? were designed to increase understanding of the team member perspective, what the experience of being on the team is like.

Attention was given to three specific aspects of the team experience: decision-making processes, how people came to lead from their areas of expertise, and team synergy.

Tasks. Members of the team are expected to take on a wide range of tasks. In the course of asking questions about the team experience, the following list of team member responsibilities could be compiled:

- responsibility over the process from receiving the raw materials, to producing the product, to packaging the product, to shipping the final product to dealers
- ordering raw materials from internal suppliers
- contacting external suppliers when there are problems
- contacting trucking companies
- writing shipping orders
- production scheduling and reporting
- selecting equipment; meeting with vendors
- traveling to meet with vendors and suppliers
- tracking inventories
- conducting safety and housekeeping audits
- hiring temporary workers
- keeping time records

In addition to these activities that members do presently, they anticipate that in the future they will be learning to do payroll, doing budgeting, releasing product using SPC (statistical process control), contacting raw materials and equipment vendors, trouble shooting problems with suppliers both in the plant and on the road, and working with and as sales representatives.

Decision making. The team's typical decision making process is to raise an issue, collect input, discuss the options, make the decision. The issue may be
generated by a team member, or may surface as a problem on the job. The team attempts to get as much input to the decision as is practical, given the urgency or size of the problem. Sometimes this means that gathering input and making decisions is not done by complete group. Minor decisions might be made by one person within his or her assigned task. Urgent decisions are made by whomever is present at the time. Major decisions that affect the entire team are usually made by the entire team in the team meetings.

Overall there is a strong sense that whenever possible, decisions should be made by consulting with other team members; ("lone ranger decisions" were among behaviors that team members found most aggravating). Joint decision making was praised by team members:

- as a way of pooling resources "you've got four other guys to lean on, or to help you, or to give you more insight."

- as a way of spreading the responsibility; "it's a lot easier than one guy taking all the responsibility"; "everyone's decided and nobody's going to say ...'you made a bad decision', because everybody made that decision...the blame is shared...the praise is shared. Everybody is involved in it."

- as a way of getting help when one person doesn't know the answer

- as a way of keeping everyone informed and included

- as a way of making a better decision because it is made by the "people actually running the operation".

Whatever configuration the decision making group takes on, the sharing and discussing of ideas appears to be important to the final decision.

"Say a guy's got a problem and he don't know exactly what to do with it. He'll talk with the other guys on his team and together they'll make some kind of decision."

Team members reported several different ways that decisions are reached. The group uses consensus decision making; however, many team members mentioned that often "majority rules". If all but one member of a shift agrees with the decision, s/he is generally persuaded to conform. A few stories were told about the majority making and enacting a decision when dissenting team members were absent. Observations of the team's joint decision making processes in use are reported in later sections.

**Expertise.** One of the early observations of the team was that certain people seemed to be resident experts in terms of a particular task. Team members were asked to discuss how this came about. Most typically, team members are looked to for
expertise in the area that they previously worked. For example, team members
formerly in the packaging department selected the equipment and set up the packaging
line in the new plant; people from process departments are looked to for help in regard
to product blending. Member expertise from other settings also contributes to the
team; for instance, members with inventory control and computer experience have
become the experts in these areas. Team members also become resident experts when
they are among the first to receive training on a particular task, or when they initiate
ideas of which they take charge.

"...all these experiences, we brought into this team, even though only one man
had it, he was able to teach the rest of the guys about it, because he had
experience of it..."

One way in which members learn to perform all functions on the team is by
training each other in their area of expertise. This is done through group training in
team meetings, through one-to-one training, and informal training as needed. In their
teaching role, "experts" have helped their fellow team members by documenting
procedures, being on call to answer questions, and providing additional resources.
Thus the role of the expert is one of not only leading the team in his or her area of
expertise, but also teaching the other members so that they may become experts also.

**Synergy.** An attribute of self-directed work teams is that they are able to
achieve synergy; members are able to work together in a way in which their collective
actions are greater than the sum of their individual actions (Blake, et al., 1987;
Buchholz, et al., 1987). Team members were asked to recall an experience when the
team performed an extraordinary achievement as a result of working together as one,
and then were asked to elaborate on or theorize about it.

Although several stories were told, one story was repeated across a diversity of
team members; (it is paraphrased here using those responses):

We were a brand new team that came together to start up this plant. Plant start-
ups are a difficult thing to accomplish on their own, but we also had to learn
how to be a team! Before we were completely trained in all the things we
needed to know, we began running the plant. The demands on us for
production were heavy, and in the process of producing we were still learning
our jobs. Through it all everyone worked together—utilized individuals'
special skills and helped each other—in a way that we immediately produced
good product. And although we always intend to produce good product, it
was a real achievement that, considering the circumstances, we were able to
run the plant well and produce good product as quickly as we did.
In summary, team members characterized the team experience as one of sharing decision making responsibility, learning from each other, and working together in a way that calls upon every member's special skills. The team's shared experience of having successfully started up a new plant was a story that was told by many team members and that expressed a faith in the team's ability to achieve its desired outcomes.

Plant B's theory: What is it to be a good team?

As team members talked about the inner workings of the team, its processes and its successes, it became clear that members had very definite ideas about what constituted a highly effective work team. The team's mini-theory of effective self-directed teams (see Table 4.1) is grounded in statements made by team members whenever they talked about the team operating effectively. Collecting these comments reveals, in the words of the team members, conditions necessary for an effective team, strategies and tactics needed to make it work, and outcomes of a well-functioning team.

"You get a bunch of guys like we got, which is a very good bunch, give them some training, and you'll have a good team and you'll have good production."

Conditions. Most team members suggested that an essential element in team effectiveness is the quality of its people. A range of attributes, abilities and mindsets were articulated in the course of the interviews. People said that members of an effective team are "motivated"; such people were characterized as "do-ers," "production-oriented," and "go-getters." In addition to having the motivation to do well, some members noted that people had the intention to make the team work; for example:

"putting forth a great deal of effort...to make sure that this is a success."

"...everybody that's here wanted to be here. I think they wanted to come here and be a part of this, so they want to make it work."

The diversity of skills on the team was considered to be an asset; people cited examples of how specific team members contributed to team success in their areas of expertise. Another member stated, "there's enough variety of people out there that we could just about get anything done."
The ability to be open to alternatives was mentioned as important part of collective problem solving:

"The biggest thing is that you got to be open-minded, got to be willing to listen to what the other guy says...and think about it on his level."

Another team member illustrated the importance of being open to learning by telling a story about a fellow member:

"...(Although this person was an expert in his area)...there was a lot of things he didn't know, and he was really open to suggestions and ideas and help and learning...

The ability to work together interdependently was a theme that surfaced in talk about effectiveness. Many people attributed success to being able to "work together." The words "work together" were typically connected to stories about problem-solving, taking action, and helping each other unselfishly, and to stories about dysfunctional activities attributed to not working together. (This notion is discussed further in a later section.) One member noted the difference between the team and other departments was that "...they cooperated...they communicated." Another said of a fellow shift member "if one of us needs help doing something, he's glad to do it (regardless of his assigned job that night)."

In addition to being "choosy" about the people selected for the team, many team members noted that important to setting up an effective team was providing the space for members to act autonomously--to have a voice and a choice in what they do.

"I would say as a group, if we would all agree on one thing, the company would probably listen to us at least take our opinions or objectives into consideration."

"Everybody gets that opportunity to... (give) ...their input."

"We handle our own selves...we do the same thing as management."

"...now I can say something, I can get something done, before I had to go to him and have him say something and get something done."

"We've got more say than what we had before, ...at least they're listening to us."

"I mean they actually can say something here and it's listened to, and it's acted upon."

"I feel like they're listening. Because, we've changed quite a few things since we've been here, no longer than we've been here."
Strategies and tactics. Three things stood out when members talked about actions that fostered team effectiveness. First of all, effective teams communicate frequently and in a number of ways. Communication to resolve issues, discuss interpersonal problems, and to share information about the task was seen as central to people "working together". Team meetings and written communication were two specific methods that several people noted as effective. Secondly, training is important to effective teams. Team members praised the training they had received, and cited the need for more. A frequent example of training that contributed to team effectiveness was the usefulness of interpersonal skills training in dealing with others; (specific example of the benefits of this training were given in the first section). Thirdly, compensation that rewards team efforts was noted by one team member as a way of prompting all members to work together. (Two things should be noted in regard to this third point: 1) compensation was not mentioned as frequently as the other two; 2) at the time of the interviews, team compensation plan was not yet in place, so comments were speculative rather than from experience.)

Outcomes. Team members were quick to point out that when a work team is effective, both the company and the team members benefit. Several members indicated that an important outcome was the potential to make more money by running the plant efficiently. In addition, some members indicated that being a part of a successful team generated feelings of self-worth and a sense of future potential for individuals. Also, members indicated that an effective team contributes to making the job more satisfying; (see the first section for some of the outcomes that team members reported). One member explained how an effective team resolves three problems people have with their jobs:

"...what do you dislike about work? One of the first things, you'll say is 'getting up and going'. But if there's enough excitement there, or enough interest, it's not near as bad; so that you kind of fix the first one...then you have your next bitch is, the boss. And I'm my boss so if I got a bitch, it's my problem. So you fix the second problem. And you always have the communication and the problems, but you have a way of dealing with it."

Organizational outcomes of effective teams include profits through cost savings and improved productivity, and the efficiency and effectiveness of having employees run the company.

Additionally several outcomes were specified that related to processes that sustained team effectiveness. Shared decision making and responsibility, the sense of
helping each other, and sharing the outcomes of working together, illustrated a spirit of interdependence. People indicated that in some instances this team spirit manifested itself in a kind of collective knowing—that people in a team just seem to know what to do intuitively. As one member noted "...you get a team good enough, you practically think as one."

**Table 4.1 Plant B's Theory of Effective Work Teams**

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Strategies and Tactics</th>
<th>Outcomes (consequences):</th>
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<tbody>
<tr>
<td>Quality people...</td>
<td>Communicate</td>
<td>Personal</td>
</tr>
<tr>
<td>Motivated, do-ers, production oriented</td>
<td>Sharing information</td>
<td>Self-esteem</td>
</tr>
<tr>
<td>Open to doing something new</td>
<td>Meetings</td>
<td>Money</td>
</tr>
<tr>
<td>Intention to make it work</td>
<td>Written communication, procedures</td>
<td>Satisfaction with job</td>
</tr>
<tr>
<td>Ability to work together</td>
<td>Train</td>
<td>Organizational</td>
</tr>
<tr>
<td>Diversity of skills</td>
<td>Ongoing</td>
<td>Profit</td>
</tr>
<tr>
<td>Provide space for autonomy...</td>
<td>Compensate</td>
<td>Production</td>
</tr>
<tr>
<td>Voice</td>
<td></td>
<td>Flatten structure</td>
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<tr>
<td>Choice</td>
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<tr>
<td>Action</td>
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**A vision of the future: "...it's a working person's dream."**

Shared vision can be a powerful guide for team action (Buchholz, et. al., 1987). During the interviews, team members were asked about the potential of the team, and also spoke unprompted of what lies ahead. Responses and statements related to the future of the team reflect individual member’s vision of the future. The future-oriented comments from team members were pulled together in order to get a sense of whether or not the team has a collective vision, what it is, and how broadly it is shared. When team members spoke about the future, some common themes were articulated. Although not everyone made visionary statements, a large number did share some views on the direction of the team, the company, and their personal future as a result of being a team member.
Several people had a sense that it will take some time, perhaps two or three years, until the team is fully self-managing to the extent of its potential; most of these people acknowledged that team members had much more to learn and that continued practice working as a team would get them there. Many team members have noted that being on the team has positively changed their view of their personal future. Some people envision themselves as teachers and advisors to new teams, others see opportunity to move into supervisory or non-production roles, and still others see themselves as an integral part of growing the company.

When members talk about the implications of teams for the future of the company they often mention that teams will make money for the company. Many team members envision that the team concept will be used company-wide at Omsco; there is a great deal of pride at having been on one of the pioneering teams. Some team members noted that in the long run, the company will benefit from a flattening of organizational structure as middle management responsibilities are taken over by the teams.

In general, team members can be said to have a vision for the team concept that indicates a strong potential for both person and organizational growth.

What do we need?

If team members had a vision of the future, it seemed appropriate to ask them what the team needed to get there. Two major themes came out of responses to this question. One was a call for more training, and the other was the need for information.

Training. Team members generally were positive about the early team building skills training, and satisfied with the training they have received from each other. However, many people felt that training was deficient in terms preparing them to operate the plant as soon as they did. Members had expectations that they would be trained in everything they needed to know before they began taking on their new responsibilities; it was expected that responsibilities would be phased in gradually along with the appropriate training. In reality, the pace of things accelerated, production was running full bore before team members felt they were fully trained.

"One week we was one shift and the next we was three shifts and the next week we was shipping out the doorway."

"We stepped in here and ran this plant without training."
"We pretty much had to learn on our own."
"We had to learn it on the job and on the run."

Members expressed that computer training, time management training, training for completing paperwork were among the skills that would have been helpful. The sheer volume of new responsibility, plus the heavy production schedule magnified the places where training was deficient.

Despite the lack of training and the lack of time in which to learn all the new responsibilities, team members could demonstrate many new learnings. One member set up a program to generate production report, with training he received from a fellow team member. Team members learned inventory control, computer entry of shipping, and off-size management through using procedures developed by "resident experts" on the team. One person assisted the learnings of others by taking calls at home, off shift, in order to guide fellow team members through procedures. One member noted how team members were resourceful when it came to learning; "we got into the habit of trying to learn other things while we had the time, because if we didn't we'd always be behind." For example, people took advantage of any slack time to practice working with the computer. Reflecting on their most notable learning since joining the teams, members responded:

- learning people skills
- working with computers
- doing paperwork and reports
- learning process operations - mixing kettles, clean-ups, and chemicals, the products.
- learning about the things that happen "behind the scenes"

Information. One of the reasons team members found the team more satisfying than a traditional operation was that they were able to receive and act on information.

"(In another department) ...the group leader and the supervisor will pass information to the next group leader and next supervisor. Then they in turn pass it on to the workers. The workers don't know what's going on they just ... tote that bale. Over here, you're getting that information first hand; you're not getting it second hand."

"the other departments, if the supervisor felt like passing something on, they did--and if they didn't, they didn't. And so it was up to us to make sure whoever needed the message got it. And sometimes it would get looked at and sometimes it wouldn't. Most of the stuff here gets looked at..."
Still, members expressed a strong need that information be shared. "Information" is broadly defined as any data relevant to team task performance, to team dynamics, or to team effectiveness in general. Members expressed a need to be kept informed about production and work scheduling, financial performance, and critical events that occur on other shifts. For example,

"someone needs to start sending... (the budget information) ...to us and then telling us...this is how you did this month. That's what I want to know--how we performed this month."

The need for sharing information was seen as important both among team members and between management and the team. Information sharing among team members is linked to working together effectively. As noted earlier, there was a shared notion that when a team works well together, everyone provides input to the decision; thus sharing information was perceived to be an important part of the decision making process. Members used various methods of transmitting information; written communication (whether a "Post-it" note or a formal log book), written procedures, team meetings, verbal communication between shifts are all ways of passing on information.

Shift-change communication was observed to be largely task and production oriented; some examples of the type of information that was passed along included the status of raw materials, product sampling, and kettles to be mixed, and any problems with machinery or supplies that have arisen. Occasionally shift change communication was used to provide both positive and negative feedback to team members about their actions.

Some members suggested that one area in which team members could improve in terms of exchanging information is by developing the willingness to ask for help--requesting information when one does not yet have the experience or knowledge on a particular task.

"when I learned it,...I asked all kinds of questions. I wasn't ashamed to go ask someone a question. It might have been a stupid question, but I wanted to make sure before I ruined a $10,000 kettle...you just gotta swallow your pride...that you don't know everything, and come ask someone."

Another wanted more complete information from members who acted as representatives to committees. Often these suggestions for improvement were brought up in team meetings; sometimes the discussions were sparked by ideas generated on
the job. Observations of information-sharing interactions between team members are discussed in greater detail later in the section, "Purposeful interactions: feedback and listening."

Information sharing between non-team groups (including management) and the team was viewed as an area for improvement. There was general acknowledgement that the culture of Omsco is such that information given on one day may change the next; generally team members are accepting of this flexibility, and the overall uncertainty of information that goes with it.

"Well, we understand that there are production changes, and there are demand changes and that kind of thing, but what I think we should be involved with is where those changes are coming from. You know, Marvin doesn't decide to change our schedule; something dictates to Marvin to change our schedule. That's what I want. I want that information. And I don't feel like we've been opened to that at all."

"And I feel like if they're doing that kind of thing, they should come down here and say, 'we need one of you guys in a meeting, right now, because we're gonna do some changing' and someone ought to be in touch..."

Regardless of the changing nature of important information, team members strongly felt that they should be a party to that changing information, just as their plant superintendent, or any manager, would be. Questions of inclusiveness were raised often in regard to information flow between management and the team, or support groups and the team. One member wondered why, if the team was going to be held accountable for performance to budget, the team was not receiving financial data directly; "why would they send it to (the facilitator) and not to us?" Team members responded strongly when they felt excluded from the full process. Some questioned being included on committees, but not receiving follow-up information,

"From what I understand, (another team member is) the one that set up all those (particular production activities)... he was involved in that part. When it was cut out, he wasn't involved in that part. We were just told, Oh, by the way, it's non-existent any more. We don't even know why."

or not being included on final decisions:

"They've taken it completely out of our area. They've taken it completely out of our hands. We do not have a representative talking to them. It's just like you standing up there saying, 'Well, I don't really want to say anything'. You get more negative responses from keeping us in the dark, and negative thoughts, than you would if you were to share it. Now maybe we would misinterpret some of what you said, but it won't be as negative as keeping us in the dark. I mean, what you're saying to us, the
way I'm interpreting is, 'management is doing this, you don't need to know until we're done.' It's a need to know basis, and that's not what this team is about, I don't feel."

What team members were asking for is to simply be a full partner in the flow of information—regardless of day to day changes, even if they may not fully understand it, and even if they may not agree:

"But the thing is, Marvin, you haven't shared nothing with us. And I'm not slicking anything up, it's just that you haven't. (Marvin- I understand) And that's your job, and we want to hear something."

"... even if I don't like to hear what they're telling me, as long as they're up front and telling me the truth, I'd much rather have it that way ...

"and that's why we asked Frank to be at our meeting ... we wanted to hear something ... even when he told us ... it wasn't what we wanted to hear, but he told us something... at least he told us why."

Team members recognized that the flow of information is critical because they have so much to learn in their new roles. For example, reading and interpreting budget information was an activity that team members were anxious to learn because its contents directly applied to their new incentive plan. They made several moves to seek out that information:

"that's one reason I ...tried to get a little more specific on what actual numbers were pertaining towards our bonus; and I didn't get that answer, but I talked to Marvin at break, and supposedly our next team meeting he's supposed to have some specific numbers that would go into our bonus fund..."

(Team member question to the plant superintendent:) "Why don't you have a representative of the team along with you just, not even to--he could just be a token member if you want--just to listen and to see where this is coming from? In other words, what you're going to do, you're gonna present us with a package of all these measurements, and unless you give us a book of resources, we're not going to understand diddle squat about these. Whereas, if somebody were to walk it through the way you're walking through, they would have a better understanding, and maybe could explain it to the team members a little bit better."

Two team members talked about how working with the plant superintendent on budgets would help them learn the meaning of the information:

Team member 1: “I was gonna ask Marvin, when he tallies these and puts them on his work sheet, that one of us each week keeps one...”
Team member 2: “Somebody should probably do that for a quarter”
Team member 1: “...just set in with him and let him train each one of us, each week.”
Team member 2: "Well, you should follow it all the way through for a whole quarter... if you followed it for a whole quarter, I think you'd be trained, and know what was going on."

The information flow theme was one of the most consistently raised themes. From one of the earliest team meetings to the last one attended, and across all team members, the issue was raised repeatedly. The strength of this theme is supported also by the observation that while team members actively and continuously raised the issue of needing better information flow, they also took initiative to correct the problem. Team members were observed on numerous occasions to discuss courses of action that would help them to get the information they need. The following excerpt from a team meeting demonstrates how team members together raised the issue and then proposed ways to address the problem along the way:

Team member 1: "I have another comment, and I don't know if anybody else has been bothered about it, but in the last three weeks, I think there's been a lot of decisions made that have affected this team, that this team has not been involved with at all."
Team member 2: "I agree."
Team member 1: "And I don't feel right about it."
Team member 3: "I don't either."
Team member 1: "It's bothering me, and it's gradually getting worse, from what I see."
Team member 4: "For instance?"
Team member 2: "Changing to 2 shifts, not letting us know what's going on."
Team member 1: "Not only that, but our production changes, like daily. It hadn't been too bad this week or last week, but the week before, it was pitiful."
Team member 3: "You know, Marvin's saying we're not involving them. Well, I don't feel they're involving us."
Team member 1: "No, they're dictating."
Team member 3: "YES."
Team member 1: "That's bothering me. Another thing is, we were scheduled to run three shifts until the end of May from what I heard last. And then yesterday, by one phone call, it was decided that we are going to go to 2 shifts Monday. And that bothers me..."
Team member 3: "...What really bothers me is, I don't see how we're not being flexible. We're being as flexible as any team could be. We're meeting their demands, we're doing everything they've asked us to do... And I think we're doing above and beyond. I think right now, you don't feel alone."
Team member 1: "I agree with you, and it's bothering me a lot."
Team member 4: "How can we solve it?"
Team member 1: "I don't know, but I think somebody needs to talk to somebody about something."
Team member 3: "That, or we better get these people to these meetings and tell them how we feel."

Team member 1: "I understand these decisions have to be made, but I don't think they should be made without somebody here being involved."

Team member 3: "We've been asking them that; that's why I can't understand why they're not picking us team members to go to these meetings. It's like they're by-passing us."

Team member 5: "Marvin's talking about us favoring them guys. Well, they don't favor us. They can come to these meetings if they want to."

Team member 1: "...it's our team--we have to invite them to a meeting."

Team member 2: "I think we need to schedule a meeting that all of them can show up, and if we have to the meeting over in the cafeteria on the other side to have enough room, that's what we oughta do."

Team member 3: "We go."

Team member 5: "Another thing, I don't think a lot of those guys realize they have to involve the team with this..."

Team member 1: "...They probably don't..."

Team member 5: "...They ain't got the training to work with the team yet."

(Team members trade explanations for what has happened...)

Team member 6: "I'm sure we all understand the way that goes, but..."

Team member 1: "Like I said, I understand that these decisions have to be made, I just think somebody here ought to be there when those decisions are being made, because sooner of later we're gonna have to make them, and we need to know the process."

Team member 2: "If they're having these meetings on days, they can call over here to (the plant) and say, 'Hey. We need one person from the team; we're having a meeting, an unscheduled meeting, and we need a member from the team there.' Maybe we can let them know that--"

Team member 7: "Here a few weeks ago (another team member) had the idea of bringing (a support person) over, to explain what she does. I think maybe we need to just get a list of people that we'd like to talk to, and (invite each one of the list to our meeting) until you get everybody over here. (talks discussing a problem over the phone with a support person) and when he got done he said, Now, if you want me to, I will come over there to one of your meetings and I will explain to everybody how I do this, how long it takes to get rail cars, the whole 9 yards."

Team member 1: "We need to know that."

In this example the team members stated their problem as being excluded from decision making and the information coming out of those decisions. The group then took the initiative to resolve their problem with some action steps: determine from whom we need information, invite those people to our meetings, set up a time for each of them to attend our meetings, and tell those people who are making decisions for us that we must be included in the process. The information issue illustrated by this vignette is two-fold. Part of the issue is an information flow problem; by not being included in decision making, team members do not have ready access to the
information that comes out of decisions. The parallel issue is that autonomy is threatened; that others are not including the team in decision making, denies the team's ability to be self-directing.

**Core values**

Throughout the previous sections a pattern of beliefs and guiding assumptions among the team members began to take shape. Thus far the findings have indicated that what is important to the team is acting autonomously, working together to make the team work through hard work and mutual support, sharing the decision making and responsibilities, and sharing the information necessary for team success.

Conversations with team members attempted to address these values issues in depth; a portion of each interview asked specifically about the personal aspects of being a team member. Responses regarding the way things ought to be, what's right, good or important reflected the values of the team members. Some of these responses were direct answers to questions that asked team members to talk about what was personally meaningful, but often, as noted above, people expressed what they believed to be right, important, or preferable in the course of talking about other issues. Values expressed in the interviews were juxtaposed with values that were observed in action; correspondence between "espoused" and "in use" values was considered to be evidence that a values theme was a meaningful one.

The purpose of inquiring into member values was twofold: to see the extent to which underlying values were reflected in action, and, to see what, if any, values were shared across the team, and how those values might influence team action as a whole. Each team member articulated a unique set of core values that s/he brought to the team. Although each team member saw the world somewhat differently, there was also some common ground in terms of what team members believed to be important and meaningful. Four values groupings surfaced across the data: interdependence, mutuality, hard work, and choice. A suggestion that a value may be shared across the team indicates that a large number of team members expressed it in some form. That these may be shared values is partly validated by the fact that these themes permeate many of other themes discussed as well (see team effectiveness, decision making, information flow).
Interdependence.

"...the job is more pressure, but...there's less pressure because you're not alone; you've got 4 other guys to lean on, or to help you..."

"...anytime you have more than one mind, I think you're gonna come up with better answers."

Interdependence was advocated in over 80% of the interviews, either as a specific statement of a value, or through stories about how interdependence made the team better. Interdependence is defined as people working together as a community; there is a collaborative spirit, responsibility is shared, and each person's strengths contribute to the team while their weaknesses are balanced by the presence of others (Buchholz, et. al., 1987). The team members used some form of the phrase "working together" when they discussed the sort of collective action that they engaged in to get things done.

In observing this collective action, I witnessed harmony, timing, and zeal. For example sometimes shifts would compete to put out the largest amount of good product. As I observed three team members working together one night, they looked like three people on a mission. All their activities were well coordinated, and they spoke very little. I noticed that the pace had picked up considerably, and that the team had not gone to break. I asked, "Are you trying to set a record?" One team member said with a twinkle in his eye, "Na, we wouldn't do that?" He grinned and said in an innocent tone of voice, "We're just working." He laughed, and then said, "I don't know if we can or not. We should have started earlier... I don't know if we can beat them or not"..."We usually wup 'em anyhow!" he said with a laugh.

A common belief among team members about what should be going on if they are to work well together, is that decision making should be shared; if people have a decision to make or a problem to solve, they should sit down, talk about it, and decide as a team. Furthermore, team members expressed that it is best when members help each other; sharing of responsibility prompts shared action:

"...Here, someone might say it's not my job, but they'll go do it. I'll go do it... if something needs to be done, I'll go do it. ... like when we're mixing kettles... that guy up there mixing kettles might need another barrel... well he ain't got time to do it... I'll go do it, I'll go get him another barrel."
Finally, members believe they ought to learn from each other. The slogan, "All of us are better than one of us" is not only displayed prominently, but also seems to express the common spirit of interdependence.

Clearly there were many observations of members helping and teaching each other, sharing their expertise in formal and informal training. On one day in the plant I observed one team member coaching another through a computer procedure. The person running the computer that day was corresponding by walky-talky to a person at the other end of the system, and had asked for help because she could not get the system started. Very patiently, the other team member talked here through the steps one at a time. After several tries she could not get the system to start; the person on the walky-talky was questioning her. The other team member was still standing at her side; he softly coached her through appropriate responses to the questions. After some time, he realized that she had used an incorrect setting. He pointed out that the setting was incorrect without questioning her competence; she changed it and he responded "There we go! Now you're ready" Several points from this interaction relate to interdependence. First, I observed two team members working as one to get through a problem. Second, one team member was willing to draw on the other's strengths to get to a final result. Third, the other team member acted as a kind of conduit for the relationship between the two persons at either end of the system.

The interviews and observations suggest the interdependence value is fairly strong. However, this does not mean that team members always act interdependently. As a group of people just one year into learning to be a team, they still reported "lone ranger" behaviors, and individualistic actions. Collectively, the team members have sampled interdependence enough to have recognized its value.

**Mutuality.**

"... I don't think any of us feel that we're better than the rest of us..."

"I mean, there's gotta be some form of respect, of mutual respect both ways"

"our shift...we seem to work together... we don't make a decision, not unless we talk to the other people. So that's one good thing; we have enough respect for each other."

"A lot of us have been pushed around, from department to department by management in the past, and I think we want to avoid that in our future, and don't want to do that to anybody else."
Another group of values that seem to be shared are those related to mutuality. Mutuality and interdependence are closely connected; in order to collaborate people need to be able to come together and both honor each other's differences and treat each other as equals (Harmon, 1981; Heron, 1989; Peck, 1987). The respectful interaction observed in the previous example enacted the value of mutuality. The coaching team member honored the self worth of the member who needed help, respected her pace of work, affirmed her as she went along, and stood by, perhaps in empathy.

Mutuality is a quality of relationship in which all members consider each other worthy, autonomous, responsible, and influential; it is characterized by respect, empathy and affirmation, balance and mutual influence in action. Team members articulated values that reflected some of these qualities. First of all, members have a strong sense of equity. Every team member had something to say about the importance of being fair; the importance of being fair showed up in actions a well. At one observation, the team was deciding on which temporary workers would be retained and released when the plant went to two shifts. The decision making activity was characterized by fairness not only toward the temporary staff (using objective criteria and giving them choices), but also toward each other in the decision-making process (who should make the decision).

Team member 1: "...so I think you have a big dilemma here on which one you're going to pick and how you're gonna-- I don't know how to pick them, unless you're gonna go seniority; you're gonna have to set one criteria to do it to be good, be honest. I'm thinking that third shift should be the one to pick, since that's the shift's that's gonna work. What do you guys think?"
Team member 2: "I kind of agree with that, but maybe you oughta ask your temporaries...some of them might have a preference as to when they wanna be off."
Team member 1: "OK. Let me ask you this, does first shift mind if the other shift picks them?"
Team member 3: "They should because we don't know nothing about the part-timers on the off-shifts, not really."
Team member 1: "Well then, I make a suggestion that we talk to our part-timers and then...get together and decide, if that would be OK?"
Team member 4: "Sounds good to me."

Team member 1: "Well then we need some kind of commitment from the company by next week."
Team member 5: "need it soon because we're leaving these guys out on a limb, too..."
When the final decision was made members expressed concern that the fairness of the decision be communicated as well as the outcome of the decision.

"See, that's what we try to stress to our temporaries, it's not-- whoever we pick, it's not that their work record's good or bad, it's what's good for them and what's good for us. You know, we're trying to make a happy medium there."

A number of people expressed the importance of equality. Team members had a sense that actions must be perceived to be in balance. This balance is important in all relationships: among members, between shifts, between team and non-team members:

"When I'm (on the MMI)...I'm doing as much as the guys out there are doing...when you're out there running the forklift, you're doing just as much (as) I'm doing; you've got just as much out there to keep track of."

"third shift, ...we leave them well, and they take advantage of this, and make our computer printouts or spreadsheets for our runs... that's saved time for us... They spent a lot of time doing that and it doesn't bother me, because they do that stuff... I don't mind them guys sitting in there and doing that, because they're really doing something for the team. And when I see a couple that don't, that bothers me."

"...I got a lot of respect (for) Frank (the plant manager). When I was still in (another plant), Frank come over and worked two weeks on third shift with us. He put coveralls on and come right out there and worked with us."

"There's office people, and there's plant people, and they just didn't mingle; and Frank kind of made a bridge there, and he goes back and forth, it doesn't bother him at all. And a lot of people respect that."

Some team members talked about the importance of reciprocal actions—that people's actions toward each other should somehow correspond in a fair way. For example:

"the guys that work for me, they say, 'OK. You decided, we'll do it.' I think that's the way it should be, and I try to give them the same consideration... they give me a lot of respect and trust, they trust my judgment. And I try to give them that same amount of respect and trust too."

Team members respond to a strong awareness of whether or not there is symmetry in actions. Members expressed frustration in situations when respect did not go both ways. One team member told how other team members' more directive style had felt restrictive; while this person felt his style allowed others the freedom to learn new things, "... they don't allow me the same thing." Other team members responded strongly when they sensed that the company was not being respectful of the
physical adjustments required of someone moving from second shift to third shift and back to second shift again in a month's time:

Team member 1: "Can't they try to get that set, because that's gonna screw your system up to go for a month like that and come back..."
Team member 2: "might be dead by then"
Team member 1: "You know it takes more than a month to get back to 3rd shift, and you have to go back to 2nd shift and... They're expecting way too much out of us there, now, if they're wanting to do it for a month, then go back. If they can't afford to keep us on 3 shifts for a month if we're gonna go back to it."
Facilitator: "What would be a fair--?"
Team member 3: "I'd say 3 months minimum--"

People suggested that it is important that there is a give and take between people as they do their jobs. Team members recognize that they can learn from each other, and are willing to yield to expertise. However, members are also sensitive to when the balance begins to tip away from making all team members equal partners.

"We're all supposed to all be equal, but still if there's a problem, he'll come to me."

"(a non-team member) even comes to me more ...he'll talk to me instead of the person on the computer, ...we've had a talk with (him) about that--that's not right. I'm not the one in charge this week."

"(People are used to being in departments where leaders use knowledge as power.) I think some people hesitate to come into a leadership role for that reason. In order not to appear to be withholding information, or having it all put on you, in other words if you know how to do it, you don't want it all put on you. You want it spread around so if you resist that then everybody will learn, because they have to..."

Team members spoke about the importance of being affirmed by fellow team members and those outside the team. Some people felt good about being recognized by fellow team members for their expertise. Others appreciated the way that others "look up to" team members. Another member mentioned the importance of receiving an "attaboy" for competent performance. Members did not articulate affirming others as a value; however they often praised each other, and made reference to the importance of empathizing with, and respecting the feelings of, others. In addition, observations of team meetings and work days contain many examples of team members affirming each other, and expressing respect for other's abilities.
Hard work.

"no matter what, you're here to do a job and you get the job done."

"...coming over here and working with...people that wanted to be doers, people that wanted to step out and do a little extra if they had to, or try to come up with ideas, and actually be running the plant ourself..."

Team members value highly hard work and the commitment to making good product. The core value of hard work was articulated by the majority of the team members. The value "hard work" begins with the belief that each team member should do the job s/he is supposed to do, and do it well; the most intolerable behavior is laziness. Extra effort is valued, whether it is used to help a fellow team member, or improve the productivity of the team. Members call themselves production-oriented people. Many people are energized by demonstrating their competence—either by beating standard, accomplishing something they've never done before, or by being recognized for doing something they knew they were capable of all along.

One of my first impressions as an outsider in the group was the intensity of the team members. The level of excitement on the team plus the sheer volume of work that team members had to accomplish created an atmosphere of drive, ambition, and high achievement. Some of my earliest observations of team meetings witnessed team members taking actions designed to get procedures articulated, understood and documented. Members took charge in their area of expertise, and used the meeting to clarify the tasks that were going to help the team keep its commitment to making good product.

Choice.

"...I kind of like being a leader...we're all leaders now."

The last cluster of values revolves around the theme of choice as a belief that people have the right and ability to make choices that direct their actions, and to take responsibility for their choices. A large number of team members expressed the importance of autonomy—being self-governing, and not being controlled by others; (specific examples given by team members were included in earlier sections). Several people expressed that they didn't need a supervisor to tell them what to do, and that it was important to them that they now had more control over their future, as well as their present activities. Members also value having discretion and responsibility; there is a sense that it is appropriate that team members have the freedom and authority to decide and take action. (Valuing discretion and responsibility was exhibited clearly in
the earlier example of inclusiveness in decision making.) People expressed that having the power to decide and act not only enhanced their feelings about their jobs, but also meant that problems could be resolved that much faster:

"It gives me a sense that I can do something about it, instead of sitting back and telling my supervisor, which he's supposed to do something about it, and then maybe he tells somebody else ... to do something about it; so we can do something about it, ourselves instead of having to rely on somebody else; (we're) more self-sufficient, I guess."

Some team members felt strongly about the importance of people having opportunities to make choices. Although individual's frames of reference differed, each person's message was similar—people deserve a chance to make a choice about what they are doing. A few people told stories about dealing with poor performance; they mentioned that it was important to give poor performers a fair opportunity to prove that they can do a job. A choice to continue poor performance meant that that person must accept the consequences. Others expressed that people should have the opportunity to choose to learn new skills and to grow; opportunities to volunteer for committees were cited as evidence that this need was being satisfied. As noted earlier, the vision of the team concept spreading throughout the company prompted some people to stress the importance of choice in that situation. It was suggested that a person should have the opportunity to choose not to be on a team; however the consequences associated with that choice must be fair to team members, as well as to the person.

Throughout the course of the research, team members' actions reflected the value of autonomy. Both in team meetings and on the job, team members were observed to raise issues that were designed to exercise some discretion and control over their processes, their work-life, and their productivity. The example given earlier, regarding team member moves to gain access to the flow of information, illustrates team members demonstrating that value in their actions. Other examples depict the variety of actions that team members took to exercise their autonomy. A meaningful move taken by the team was their action to take back facilitation of their meetings. In earlier months they had begun rotating the role as a way of learning how to lead a meeting. During the peak production period, the former supervisor, who now held the position of "facilitator", had begun to guide the group process each week. In asking to take back the position, team members assured the facilitator, "Not that we don't appreciate you,...", but, "We want to start learning; we'll start learning."
Another member pointed out that it was time to start using the training they had received. As a second example, in another meeting the team initiated the idea of working to a ten-hour, four-day week for the summer. Members proposed the idea, and discussed its implications for the operation and their personal lives; in working through the decision process, members came to the conclusion that the idea was not workable. Third, on several occasions in the plant, I observed members engaging in brief brainstorming sessions regarding how they could improve the productivity of the operation. One discussion considered equipment modifications, and another proposed ideas to reduce down time by altering production schedules. In each of these examples, members demonstrated, by their willingness to take control of issues that affected their desired outcomes, that autonomy was an important force behind their actions.

The four values of interdependence, mutuality, hard work and choice are very much interwoven, even though they were discussed separately here. They were discussed here as groupings of values. For example, mutuality included valuing fairness, equality, and respect; choice included values of autonomy, discretion, and responsibility. These values were apparent not only in the talk, but also in the actions of the team.

**Purposeful interactions: Feedback and listening**

Two important questions in this inquiry concerned the patterns of discourse within the team and the nature and quality of that communication. The patterns of communication observed within the team differed by member, situation, and mix of individuals. A selection of observations are given here to illustrate the variety found in team member communications. Those examples include communicating information between shifts, practicing feedback and listening in team meetings, and bantering as a language for providing feedback.

**Shift change communication.**

As previously discussed, shift change communication was primarily task and production oriented, but on some occasions was used to provide feedback to team members on other shifts. The examples in this section illustrate the nature of that communication.
During one shift change observation, out-going and in-coming team members talked about a problem with changing bags for the product. The incoming team members saw an opportunity for saving time by working around equipment problems:

In-coming team member: "Is it same size bag and everything? that’s what I’m asking. If we have to change the bag hanger, let’s skip it and bring it down..."

Out-going team member: "Oh no, it's just a different bag is what it is; this is a brown bag with a print on it, as opposed to whatever that (Product Name) bag is."

I: "The (Product Name) bag is a sewn bag; this brown bag is a sealed bag...."
O: "You're only talking about...change over (to) seal!"

I: "You know how that thing runs out there. It took us all night to get that thing..."
O: "...Well we don't have to worry about it because they don't have the dye to print the labels... so we don't have the bags, so she said just go ahead and add this 800 to the total for the (Product Name)..."

I: "Well, you understand what I'm saying; (S- yeah) if we don't have to mess with that bag hanger any more than we have to, that'll help us out."
O: "But you know, you’re only talking a few minutes; it's not like a major changeover."

I: "...I won't disagree on that one. the main reasoning... every time we have to mess with that bag hanger we're wasting time with bags. (pause)
Well, that's something we can work out next week..."

Several things can be noticed in regard to the communication between these two team members. The two members perceived the issue of saving time differently. The incoming team member presented the issue as a way to help the team "that'll help us out." When the outgoing team member appeared not to see his point, he resolved to raise the issue again.

Continuing the example, the incoming team member then checked to see if he needed to know anything else regarding the day's operation:

I: "What else is going on?"
O: "Um. Can't think of anything else...keep going with the (Product Name)"
I: "How far along are we?"
O: "A couple bags left...you still wanna make the same total batches. 
...I spent hours today, just getting this all straightened around, (points to a sheet on the board) on the bags... (other team member) had them ordered, when I called...they said I...don't know anything about it..."
I: "He didn't know they weren't ordered then?"
O: "(other team member) told him! He just evidently lost his paperwork..."
I: "When you guys order things, do you write it down on a paper and send it over? or do you just call over?"
O: "Call over there and then when we... we mark it down that (it's) ordered..."
I: "That's what I'm wondering you know, that..."
O: "well, you know..."

There was an attempt here to give feedback on a particular behavior. When the incoming team member checked with the outgoing member on the ordering procedure, he was referring to an earlier team discussion regarding the proper procedure for ordering bags.

As other members of the shift arrived, they found that some things on the preceding shift were not done to their liking. The outgoing member received feedback from these people as well:

I: (To another incoming team member:) "what are they doing out there, (name)? Do ya know?"
Second incoming team member: "I don't know. I'm trying to get the numbers off...they got stickers sticking out all over those skids out there. Have to get on your guys on days to make sure you put your stickers on there, O!"
O: "on where?"
I2: "On your skids out here!"
O: "how's that?"
I2: "Got stickers hanging all over back there..."

(I2) is obviously frustrated with the way the previous shift had handled the loading of trucks. He drives past in a fork lift and comments to his co-worker about the prior shift not doing something correctly.

The third incoming team member came into the control room after loading raw materials into the system and expressed concern that the previous shift had not loaded raw materials as they had been requested to do.

I3: "...they want us to get the (raw material) running. I'm gonna start hauling..."
O: "There was a note here they wanted to get it by the bunkers..."
I3: "Yeah! they never did it that, They should have..."
O: "Well. Yeah. Uh..."

The following points were observed in the feedback given at this shift change. Team members were frustrated by what they considered to be inadequate work by the preceding shift. Despite their frustrations, their words were directed to the object of the feedback. They raised their concerns to the remaining team member, concerning the specific action that was not taken, rather than by blaming or belittling any person. They were unable to give feedback directly to the person who had performed the task. There was not extensive reciprocal communication about the action.
Although this single example is unique to these team members on this day on this shift, it is fairly typical in terms of the amount of time available for exchange of feedback between shifts, as well as the availability of the appropriate team members. This particular shift change communication indicates that the shift change may not provide a setting conducive to effective feedback. Team members often do not discover problems until after the previous shift has gone. If a member of the previous shift remains they can pass on information about the problem, but the person who needs to hear the feedback is often gone; therefore the complementary action to feedback, listening, cannot always take place. In addition, effective communication takes time, and the primary task of people coming on shift is to continue running the operation. Team members do their best to exchange interpersonal feedback given these constraints, but a better arena for giving and receiving feedback is the team meeting.

**Communication in team meetings.**

At the suggestion of the facilitator, team members used an agenda list to bring important issues up for discussion. Sometimes members used the agenda to give feedback about a procedure that was not being correctly executed. For example, a team member brought to the table a procedural issue regarding the opening and closing of certain valves. He explained what the problem was, and how he would handle it. At that point six team members engaged in a discussion of the procedure for opening and closing the valves, and suggested what they thought should be done based on their experiences with it. While he had the floor he also raised another issue of safe operation of a particular piece of equipment.

Members often informally presented feedback to the group in their meetings. Often just a brief statement referring to a previously discussed procedure, or a short comment about an experience in the plant that week prompted discussion and clarification of an issue:

"I have one short comment about off-size material. When you're hauling off-size out into the warehouse, don't just stack everything together. 'Cause we're sending (another plant) out there to get it, and there's no way in the world they're gonna sort through our off-size to get what they want. (if it's not in a row) they're just gonna leave it. So I'm trying to get areas designated for everything; so when you haul a box out there, look for whatever you have, and put it with the rest of them. OK?"
Team member 1: "...This is something I think needs to be brought up, and you guys are gonna see it Monday. I'm not pinpointing anybody, but Wade (the raw materials support person) called me Monday, and I kinda got a real good chewing, because my inventory, ...you know the trailers we get in of raw materials, where you make a copy, we sign it, put it in the folder for Wade and one in our folder? Well three of them were not sent over, so my inventory didn't match his inventory and I'm talking we was way off on one where we had 51 drums. I don't know if everybody doesn't understand that when there's 2 copies of this, one goes to Wade and one stays here; well, I found of the one, both copies were in Plant B's folder, another copy was up on the drums on the fourth floor, and a third copy was never made. So we gotta get on spec here..."

Team member 2: (laughs) "...at least we're consistent..."
Team member 1: "...because Wade's--I'm telling you, he nails you. The inventory has got to be right."
Team member 2: "Yes he does, he does."
Team member 3: "He'll come down hard on you guys, 'cause you guys are gonna start getting inventory next week.... That's another thing. Don't let (facilitator) take the paperwork over during the day at all."
Team member 4: "Leave it there. Let us take it over on our shift."
Team member 3: "...because (we would have) caught that..."

These two examples illustrate team members taking care to address behaviors rather than personalities, and articulating the actions needed to correctly execute the procedure.

Most exchanges of feedback are more complex than these two illustrations, and may include less objective and less precise information as well as direct feedback and reciprocal actions. In the following example, some members expressed their frustration with other shifts and other team members, offered clarifications and solutions, and made moves to change the direction of the conversation from confrontational to collaborative:

Team member 1: "I think we need one procedure change, and that is if (first shift) is going to release a car by Wade, write on it somewhere 'being released by Wade' so we don't call it in, or somebody else call it in."
Team member 2: "I thought that was the procedure."
Facilitator: "Yeah, they should be writing on that card, 'Called Wade' or something."
Team member 2: "...that we write, whoever we talk to over there, when we call Wade, we write, 'Wade'. or at least I do."
Team member 3: "'That way we don't get one in the box and say ...no one's called this in...."
Team member 2: "...it's in the box and there's nobody's name on it, it hasn't been called in."
Team member 6: "It shouldn't be in the box then..."
Team member 2: "Well, if you call and nobody's there..."
Team member 3: "I mean, the top, the top..."
Team member 4: "I've seen it on (my) shift where (the other shift) has done it and there's nothing on them, there just thrown up in there"

Team member 1: "And we're not sure on (my shift) when we're taking the records over if we should go ahead and call ConRail... to make sure that this car isn't just being sent over, when it could have been called in before midnight and saved another day..."

Team member 5: "...Would it be possible to get a stamp to say "released" and every time you release a car you just stamp it, that way even if you didn't sign a name or anything, people would know it was released?"

Facilitator: "You can do that as another piece of it...but second and third shift needs to write the name of the individual on there that they talked to when they released that car."

Team member 6: "I think it's a good idea ...I think he's got a good point."

Team member 7: "...isn't there a spot on the card that says "released"? ... we just write our name on it?"

Team member 1: "If your gonna have Wade... release it, ...we've come across where there's no signing and if there's nothing signed, we figure that if it's up in that box, it needs attended, by us, where your intention is it needs attended by Wade, to release it. What we're saying is if Wade is to release it for you guys, sign it Wade took care of it; otherwise we're gonna be calling ConRail."

Team member 6: "I think it's a good idea; ...I honestly do... You see that release stamp, you're gonna know right then somebody released it; it's just another precaution.

Team member 7: (louder) "Well, if they can't take the time to put the name down, what makes it ...put a stamp on it?!

Team member 1: "You don't have the name down, even if it's Wade, there's no name."

Team member 7: (louder) "Well, I understand; but people have to be aware of it."

Team member 4: (louder) "Like he just said, if they don't take the time to put the name down when they call Wade, they ain't gonna take the time to put the release stamp on it. You guys are gonna have to make time!

Team member 1: (Calmly and softer) "If we don't catch it before midnight, it's another day's charge. And a lot of times, myself, I don't get around to checking the box until late in the shift, which is well after midnight, so it could possibly be another day of charge."

Team member 3: (louder than previously) "How does (other shift) do it? When you get an empty car what do you do?"

(explanation of procedure)

Team member 3: "OK. So you have to write something on there that we know."

Team member 1: "Just put 'Wade'..."

Team member 9: "...Wade, the time, and the date..."

Team member 7: "...just make sure you put your name down, rather than having to worry about a stamp..."
Team member 6: "...fill out ...completely..."
Team member 7: "...like I said if your not gonna put "Wade" down, you're not gonna put "released" down on it..."

Team member 8: "OK, we're not the only one that makes mistakes though. Last week, (team member) emptied a car on our shift, and I called Wade at 10:30. And he said, 'well that's funny that car was released at 7:00 this morning'. And I said, 'well, I beg to differ with you, we didn't release it' Well, we did some research, and found out that (a different plant does) the rail check every morning. They walked through our building, pecked on the car, it sounded empty to them, they wrote it out on the daily track sheet that the car was empty, so Wade released hisself, without our permission. I told Wade that if he doesn't hear a word from 1st shift saying to release the car, not to release it. Because at 7:00 in the morning it had one section that was about a third full..."

Team member 4: "...that's not right, there..."
Team member 8: "...So it's not all our fault. Everybody has to get on line with what we're doing."
Facilitator: "I'll talk to (that plant's supervisor) about that."
(From this point in the discussion, team members clarify issues and state some actions that they will take.)

The following observations can be made regarding this example. The discourse included emotional as well as informational exchanges. It began with general disagreement and uncertainty about the procedure and the events in question. Team member 5 proposed a solution which prompted more debate. Team member 4 and team member 7 were very forceful, possibly angry, in the beginning; their tone of voice was loud. At one point team member 1 dropped the tone of his voice in response to the rising volume of the conversation. Team member 3 asked one shift to clarify its procedure. When team member 8 shifted the focus of the problem from within the team to outside the team, team member 4 became calmer and more understanding of the issue. This example is typical of the discourse of the team in that it exhibits a variety of communication patterns. Also noteworthy are the moves by two members, 5 and 8, to take on roles to lead the discussion towards common ground and resolution.

Issues are not always raised in a similar manner. In one team meeting, a team member jokingly added an item to the agenda regarding a work order that another team member had written:

Facilitator: (reading from agenda)- "put a stop to Todd's spending,"
(Group laughter)
Facilitator: "Who had that one?...Todd isn't here to defend himself." (Todd is absent)
Team member 1: "What did he order now?"
Facilitator: "Well, I think that (the person who put this on the agenda) is probably relating to..."

Team member 2: "It was a joke..."

Facilitator: "Well I think that, it's fun, but in all reality that is serious, --and that's a good point...is that, and I think (another team member) brought it up the last time, and we stopped the high cost of what was it, $4-5000 to do a platform up there--what we've said is if there's any big spending to go on here, that the whole team should be involved in ...making that decision."

Team member 3: (comes to Todd's defense) "I have a question on that too. That was a safety suggestion, and one that won the monthly thing--doesn't that come out of a different budget? (Facilitator shakes his head no) It doesn't? I always thought it did."

Facilitator: "That is charged to the department that it..."

Team member 3: "OK, because that's why we wrote the work order up, because it was a safety idea, and we won that month, and that's why the work order got wrote up for it. It wasn't that Todd was trying to spend more money; I wanna get that clear. That was a safety thing."

Team member 4: "I was talking to (another team member) last night, that, when we go to this 2-shift operation and we'll probably have more slack time...that, any of us that has any type of experience, either cutting out or welding whatever--we can do a lot of our ideas ourselves; you know just the assistance of everybody, the 2 shifts--"

Facilitator: "Maintenance cost is ($37 plus materials); that's what charged against our budget. So whatever we can do is certainly to our benefit. (Summarizes for the minutes:) What (the team member's) comment there is, in regards to, anything that costs dollars, the whole team should be involved before that decision's made."

Several observations make this particular exchange interesting. The message of the feedback was interpreted by the facilitator as concern over the cost of work orders; that it could have been a message about the absent team member's behavior was not openly addressed. The response to the message came from the facilitator who directed the group toward thinking about large spending decisions as team decisions. It was unclear whether it was the facilitator or/and the team member who was the target of the feedback. One team member's action to defend the absent team member illustrated the mutuality value in action; by providing clear and direct information about the nature of the work order, he attempted to bring balance to the exchange and affirm the absent member.

In sum, the nature of team meeting communication is often task-oriented, or concerns individual actions that deter or promote task accomplishment. Where issues of individual actions are concerned, team members were fairly direct and used both objective feedback and some more personal remarks. Members seemed to give each
other the space to express their points of view. Some members were observed to take on roles to facilitate the group process.

In this last example of team meeting feedback, a team member used humor to raise an issue. The outcome of his action was that the issue was discussed by the group, but the means was not true to the guidelines of effective communication. The frequent use of joking and teasing among team members called for an exploration of this communicative action.

Banter as feedback.

In their interviews, people told of the joking that went on among and between team members; in addition, a great deal of teasing, joking, bantering among team members was observed in visits to the plant and in meetings. Bantering had a strong presence in the work setting; it appears to be important because it seems to be so much a part of the character of the team. Nearly every team meeting began with people joking with each other about something; the absence of joking was a signal the state of the team was grim. The team playfully chided members who did not attend meetings by volunteering them for any assignments that came up in the course of discussion—"Just (one person from first shift) here huh?...we're gonna volunteer them guys for everything."

The banter that goes on seems to take on two forms. One is good-natured teasing for the sake of humor, a form a play, a way to have fun on the job. Many people mentioned the teasing and "poking fun" that goes on, some shared some stories about having fun on the job, and examples from observation abound.

"We have certain people that have reputations for doing things. (One team member) has had a real rough time with our trackmobile, so every time he has to drive the trackmobile, we all give him a hard time: 'Are you gonna tear it up this time?' They have all been accidents that he couldn't have been responsible for... So, we kind of pick up on that thing, and we give that person a hard time for their area of roughness."

"we all joke a lot, and we all know it's in fun, and a lot of it's in between shifts, because that's about the only time we get to see the rest of the members."

"I never take that personally, because I know these guys are joking...we got a good crew over here."
As pointed out in the previous example, banter also seems to be used as a form of feedback. Through teasing remarks, or barbs given in a joking way, members may give feedback to each other about performance and behaviors:

"they joke about (one team member) doing four jobs at once. And he does."

"...We like doing 2 and 3 jobs. (Name of team member who has this reputation) trained us."

"but we got into competing a while back, and it was when (another) shift... (was) low on their production. And I said something (to them), when I came back in they had run, like eight more skids than we did. I said, 'It's about time you guys did something. I knew I could get you guys mad enough so you'd top us'; and they did, and then they started staying up there."

"...When you come back from break and they say, 'Man, you gonna fill out an annual leave slip for that?'"

Non-team members give feedback about their feelings about the team through banter:

"Down in the break rooms...they call us 'gravy'...I just shrug that off; to me it's just saying that they recognize me."

"Guys make fun of you in the other plant, 'Oh, there comes high-performance.' And you know that they're making fun, but in the back of their mind they're saying, 'man, I wish I (could work over there)..."

During one observation two maintenance workers came into the control room and presented a team member with a jar of udder ointment. The team member explained that they used it to grease the belts on the machinery; but the maintenance men explained that they gave him the udder ointment because he had the "milk job" that night.

A team member explained that bantering made it possible for people to simultaneously relieve the pressure of interpersonal differences and to get problems out in the open:

"...(the condition in which the other shift was leaving the plant) was getting to us too much, and we started realizing we can't do this anymore, 'cause it was tearing us apart. So we stopped getting upset about it, and started bringing it to a subtle way of how to leave things, or subtle hints about it. And in general, it's gotten a lot better...
...It's more or less said to the point of saying it in a kidding way... I think that people realize that, so it doesn't come to the point where you say, 'why in the hell did you leave it like this?'...so I think it's beginning to understand how it should be left each time. I don't think it's getting too nasty. (laughs)...
...I got a very good example: We dump this (raw material); you see it comes in the big boxes. We'll dump 50 boxes a night; all those have to be broken down, skids, lids taken care of, and dealt with. A person on 1st
shift will stack them 5 high. ...just left them. It's standard procedure to break them down and get rid of them. Most of the time (laughs) we don't need that many boxes ...it got to be the point it's "such-and-such tower"--you say, this particular person 'it's his tower', or 'he left his tower out there again. So we would leave it, (the next shift) would leave it, and it'd get back to 1st, and they'd pass it on as a tower out there on the track...it was in a jokingly manner. I thought it was pretty amusing myself. (laughs) I'm not sure how it's turned out..."

Another team member explained that banter not only softens the impact of giving negative feedback to a peer,

"Not being actual 'supervisors,' it can somewhat be awkward to be direct when dealing with peers without looking like you're trying to be a boss over them. Bantering can get the point across without that 'boss' appearance."

but also actually demonstrates the mutuality in the relationship between team members:

"...it shows that we really respect each other, and don't want to hurt feelings or in any way appear to be 'over' our team members. It also shows a closeness, almost like a family, when you're comfortable enough in the team setting to 'give' bantering as well as 'receive.'"

Although using a barb or a joke to give feedback breaks some of the rules of what is typically considered effective feedback (for example, being direct, specific and objective), it is a way in which people give and receive information about what they are doing. One might speculate that it may even be an effective way that people give and receive information, if everyone understands the rules of the game. In that sense bantering might be a language of the work place.

It is likely that when banter is effective as feedback, all parties to it have an understanding of its context. For example, without knowing the full context in which the following two remarks were made, it would be difficult to determine if the banter was intended as a commentary on the person's hard work or as a hint to work harder:

"I told her you were working and she found that hard to believe!"

"...I tried to get (another team member) to do it this afternoon, and he was too (lazy?)...he just wasn't working fast enough for me."

I suspect that giver and receiver of this feedback, understood its meaning in the context of their mutual work histories, and their relationship. Those who listened in would interpret the remarks accurately or inaccurately based on the extent to which they understood that context.
One team member felt that bantering was effective 99% of the time, but was quick to point out that "the direct approach" should be chosen for "serious situations"; "in the 1%" when banter failed to work, "you can use the direct approach and point back to the bantering." When asked how one would know if the intended message in bantering got across, one member simply stated, "because of changed behavior."

In summary, the communication of the Plant B team is a mixed bag of traditional effective communications skills, and inventive feedback methods. Members use their time together to interact in ways that, first and foremost, meet the needs of the operation; perhaps their strong production priority enables them to give feedback in a task-oriented rather than personality-oriented manner. The communication of the team strongly reflects shared values. Communication patterns reflect fair exchanges, affirmation of team members, an orientation towards productivity, and an intent to exercise control over the team's destiny. Bantering among team members is a way of having fun on the job, as well as a way of giving feedback on behaviors or performance.

Connecting talk and action - the role of the "MMI person"

One of the emergent themes that surfaced across interviews was that a key role was enacted differently across the team. These data suggested that there might be different leadership styles at work, as well as different constructions of the role in question. Observation data of people in this role were explored to see just how team member talk connected to their actions.

Each week, a different team member takes the role of monitoring the computer process from a central "control room." The computer system, or "MMI" (an acronym for man-machine interface), is central to all manufacturing tasks in the plant; the person who monitors it keeps an eye on the process from receiving the raw materials to loading the final product onto trucks. The role of the person running the MMI for the week is interpreted differently among team members. In addition to each person's expression of their personal perception of that role, which differed across the team, people also noted differences in how their fellow team members performed in that role. Several implications of how the various constructions of the position might influence the team were considered. For example, it may be that the differences are merely individual style differences that members simply adjust to, as people rotate through the position:
"There are things you have to accept about people, because they're not gonna change. There are certain ways that they're gonna do things, and they're not gonna change because I want them to do it different. So you have to learn to work with some people; some people you can work with, some people you have to learn to work with".

On the other hand, it may be that consistency across this role is beneficial, or that a particular approach to the position does a better job of promoting the accomplishment of team goals, and generating collaboration and team synergy. Since this role is generally viewed as an important one in terms of coordinating activities, the words and action of the team members in this role were explored.

Descriptors. If the words that people use to describe a role can influence the way they perform that role, what are the words that people used to describe the MMI position? Some team members used words that referred to the location, environment, or task. For example, people made reference to "having the MMI" for the week. Other phrases used are: "sitting in the chair", "sitting at the computer", "sitting here (in the control room)", "in the control room".

Another way to describe the position is in terms of what the person does and does in relation to others. These descriptors were wide ranging, from a reference to an individual who runs things:

- "the boss"
- "(person) in charge"
- "one guy"
- "more the person responsible, than the boss"

to a person who leads the group:

- "the group leading position"
- "group leader"
- "leader"
- "the team leader"

to a person who is providing a service to others:

- "a coordinator"
- "a secretary"

These are very different views that could prompt different actions. For example, if a person thinks or feels that the role of this position is to be the person "in charge", that person might perform the job differently from someone who views that
role as a coordinator or a secretary. This raised the question of whether or not the descriptions were matched by actions.

Reported actions. Team members also talked about the actions one takes when one "has the MMI"; the range of actions was just as wide ranging as the position descriptors. Some of the actions of the MMI person were reported as task-related activities:

"...he's kind of in the central location. ...He can watch over packaging...has the control of where the track person is, what hopper he's dumping into, and where that product is going...has the control over the blending cycle...ties everything together."

"(responsibility) to keep the plant running, the computer..."

"responsible for the overall operation"

"in charge of the computer and doing the paperwork"

Beyond these production-oriented actions, relational aspects of the position were reported. The interpersonal outcomes of enacting the MMI role were reported in two ways: the person reported how s/he acts towards others in that role; the person reported how s/he perceived others to act in that role. The following quotes include both perspectives and highlight divergent points of view within the team:

"the MMI person will tell you when to go to break...that's as far as I take it."
"the guy running the MMI, he'll give him a specific job..."

"(some people act like) they're in control; they can tell you what to do...just ordering you around"

"(the team) might need somebody to coordinate the people working overtime, and tell them where you want them to go."

"If I see (another team member is) busy doing something which is gonna better everybody, I go out and take care of their job a little bit."

"...he gets real bossy"

"When I'm in there, I ain't the boss; you got your job, you're assignment and you do it. I shouldn't have to tell you where you're at."

"(the MMI person) has the final say, but we all have the right to dispute it"
"the guys that work for me, they say, 'OK. You decided, we'll do it."

"I'm in the control room. I don't like to be called group leader...I might be a coordinator, but they do their own jobs; they're in charge of their own jobs."
"When it comes down to making a decision, when I'm sitting here, I feel like, I'm gonna make the decision, I'm gonna take the responsibility..."

"When I'm in here...I'm doing as much as the guys out there are doing...when you're out there running the forklift, you're doing just as much (as) I'm doing; you've got just as much out there to keep track of."

"When I've got that MMI, I don't pass out jobs...I point it out, that we need to get this done, but I don't say 'can you go do that?'

"But when I made the decision, all of them did what I said, and we probably saved the most amount of time doing it that way. They didn't question me or anything like that, which feels like they give me a lot of respect and trust, they trust my judgment. And I try to give them that same amount of respect and trust too. If I have something to add when they're in here, I will also do that."

**Team members in action.** Based on team member descriptions of actions in the MMI position, three general characterizations of the position were construed:

1. The **boss** for the week, **decision maker**: "someone needs to have that authority". A person carrying out the position this way would be observed to use directive language ("Do...go..."), to elicit subordinate-like responses in others ("What do you want me to do now?"), and to speak as an individual ("I decided we will...").

2. The **coordinator** of activities: "there's lots of things that (the MMI person) sees that I don't see when I'm involved with one specific aspect of the operation". A person carrying out the position this way would be observed to monitor the process and report it to others while coordinating the team effort, to consult with team members when making a decision based on information about the whole system, and to use "we" language ("We need to do... before the end of the shift.").

3. An **equal partner** in a jointly held leadership: each person is "doing just as much" as the other. A person carrying out the position this way would be observed to do things for others, to perform tasks outside the assigned role if needed, and to accept direction and advice as well as give it.

Data gathered in the course of observing of team members enacting the role were analyzed for confirming and disconfirming evidence of these themes. The following are excerpts from the observation of three team members' talk and action. While several other team members were observed in this role, data from three team members from three different shifts who had expressed three different points of view about the position were selected for analysis. (The selection of three observations is justified because this was an initial exploration intended to point the way for later in-
depth analysis.) Data from observations of each team member, in the form of quotes and anecdotes, are clustered within the three themes.

*Team member 1.*

As boss/decision maker team member 1 made decisions, gave direction to team members, and called forth questions from others that indicated he was in charge:

"I'm going to call him and tell him not to...We're gonna run one more batch, because I think we can get it off the bottom of the kettle." (Directs team member:) "...Don't put that in this kettle. It's a slightly different analysis. I would go ahead and put it in the bottom of the next kettle and mix on top of it. So you can pump it into the big kettle if you want to..."

"Ok I'll have (team member) do that..."

Team member: "You need anything done, (name)?"

Temporary worker: "Do you have anything else to do right now?"

As coordinator of the operation team member 1 made in regular contact with team members working on various processes and proceeded based on those team members' actions:

Calls a team member on walky-talky: ("Yeah?") "We need (raw material) in #4; it just went completely empty. Switching around for you right now." ("OK")

Kettle operator comes in. Team member 1 checks if the kettle is mixed and says "Done? Wonderful. We'll go to break and right after break we'll start up."

To another team member: "We need to make sure the...tank is loaded for the next run."

"Go to break at 1:15...We're starting up right after break. (Name) just got done mixing the kettle."

As a partner, team member 1 served others, accepted advice from others and accepted others as autonomous decision makers:

Another team member: "I'm gonna go up there and purge those last couple (chemical) barrels. Did you set up an appointment for (my blood test)?"

Team member 1: "No. I can call (name) and do that."

Another team member: "Why don't I load all of these?"

Team member 1: "As far as I'm concerned you could, if it'll fit."

One team member switched with another so he wouldn't have to mix kettles all week. "They did that on their own I didn't even know that took place"
Team member 2.

Team member 2 enacted the boss/decision maker role on a limited basis:

He talks to a temporary: "Where are you on what you're doing? When you get done (do this). OK?"

As coordinator of the operation, team member 2 monitored the entire operation and attended to people's tasks:

Team member 2 checks with a co-worker as to the status of shipping: "How we sitting there, (name)? Where we at?"

Team member 2: "...I think there's still some (raw material) out there where the off-size material is..."
Other team member: "I'll get that out of there..."
Team member 2: "...I'd go ahead and work on that.

As a partner, team member 2 considered the input of others, helped others on any task that needs help, and acted with regard for others autonomy.

Team member 2, to a temporary: "...wanna go ahead and fill on of those bins now?"
Temp.: "I was gonna do that other (raw material) first."
Team member 2 checks to see if he has the boxes to complete the task, and the temporary says, yes.
Team member 2: "We'll go ahead and fill that (other raw material) then...try to get both of them at the same time, if you can. OK?"

Team member 2 is observed to be driving a forklift, pulling skids off the packing line to be wrapped.

D: "I noticed that you haven't been on that walky-talky at all with anyone"
Team member 2: "I don't need to--I know (other team member is) out there right now helping the track. She's unloading trucks right now ...
D: "You don't need to give any direction? Everybody just knows what to do?"
Team member 2: "I don't have to, I haven't told (the other team member) to do anything...you've been with me all night, I haven't said more than a couple words...I know everything's getting done."

Team member 3.

As boss/decision maker team member 3 gave direction and made decisions.

"...you can start cleaning out them bins, draining your bins."
"I need you to, on the second floor, take that stop off that #4 bin..."

Temp asks, "what should I do?"
Team member 3: "put it on clean out, help dump them bags out, weigh them up. We're done."
Team member 3 checks with the temporaries who are cleaning up around packaging line. He runs his finger across top of bag filler and product falls onto conveyor. (A non-verbal cue to be thorough?)

Team member 3 to another team member: "I'll just send one of the part-timers over and take samples...unless you wanna take them over."

As coordinator of the operation team member 3 was often talking to two members at once, in two separate areas of the plant; he monitored their activities in conjunction with the computerized system, kept in contact with them, and determined when they would break:

Team member 3 confers with other team member about emptying bins: "What do you wanna do?" When the other indicates no preference, he says, "I'll do limestone."

"(Name), I'm gonna start all that up. Are you clear?" (Go ahead.)

"Since we're done, let me set the blender off, I'll go over there and look and see what it looks like."

Team member 3 checks with the status of another members work--"you mixing right now?" (no) "Are you in the kettle room?" (yeah)--before making a request, "I need you to hit that KCL bin."

He calls out to all on walky-talky, "break time."

As a partner, team member 3 served other team members, accepted the direction of others, and performed in other operational roles during the shift:

Another team member hands him a bag count and asks: "Would you log that in when you got some time? That's how many bags is left in (location)." Team member 3 says, "OK."

One team member advised: "... if you wanna be safe we can just go ahead and drain."

Team member 3 considers his advice then calls to another team member: "Hey (name)? ... don't dump it. ...We're gonna drain."

As team member 3 participated in the activities of the clean-up, I observed that extent of his directiveness was his directing the temporaries to sweep in particular places.

In the three examples above, team members were observed to enact the MMI role many different ways. Several points are worth noting. First, each of these team members generally described the position differently; that is, each of them seemed to subscribe to a different "theme." Second, each of the three people enacted all three themes in their role as MMI person. Third, their choice of theme seemed to vary according to the task and importance of the activity. For these three examples, not
only did the actions of team members indicate a broader repertoire in use that team
member comments suggested, but also these three team members did not always enact
the position the way they portrayed it in their talk. The lack of strong findings here
does not minimize the reality team some team members may be more directive than
others, however it may redirect the issue. The core issue here may not be the MMI role
at all, but rather the broader question: how is direction given in a self-directed work
team? This question will be dealt with in the final chapter.

Summary of Findings: Plant B

The Plant B team was formed for the purpose of starting up a new plant. This
chapter described the experiences of the team members from the team's beginnings,
their underlying values, and their communications and actions.

The Plant B team members found their early experiences with team to be
rewarding and energizing. However initially, the idea of being part of a self-directed
work team had little to do with people's decision to bid for the job; a change of
conditions, a new learning challenge, an improvement in pay-grade or shift, were the
primary motivators behind people's decisions to bid for the job. People who joined
the Plant B team entered an ambiguous situation. Although the interviews had briefly
described high performance work teams, members had only a rough idea of what the
experience would be like, and really learned about teams by experiencing one.
Generally they reported that once on the team they found it to be satisfying for a
number of reasons; members cited the opportunity to demonstrate their competence,
the opportunity to make decisions, to have a say, to be their own boss, the opportunity
to grow and learn, and their feelings about themselves as factors that they found
attractive. Many members expressed a vision for the team in which both they and the
organization could grow and be successful.

When team members characterized their team experiences they spoke of
"working together" in a mutually supportive relationship in which members helped and
trained each other, shared decision making and responsibilities, and acted
autonomously.

Training was an important part of the early, and on-going, team experience.
Team members learned or were in the process of learning a wide range of tasks that
included broader production responsibilities, administrative responsibilities, and
interpersonal responsibilities. Although team members generally were positive about
the training they had received, and pleased with their new learnings, they felt they
needed more. Early training had helped to develop their team building skills. Training
they had received from each other helped them to learn skills in other areas of the
operation with which they were unfamiliar. However, many people felt that training
was deficient in terms preparing them to operate the plant. Team members noted that
computer training, time management training, training for completing paperwork were
among the skills that would have been helpful prior to start-up.

Shared decision making by team members is an important form of interaction
within the team. The team's typical decision making process is to raise an issue,
collect input, discuss the options, make the decision. Team members have a strong
sense that whenever possible, decisions should be in consultation with other team
members, although they were quick to point out that the urgency and magnitude of the
decision influence the extent of involvement. Minor decisions might be made by one
person within his or her assigned task. Urgent decisions are made by whomever is
present at the time. Major decisions that affect the entire team are usually made by the
entire team in the team meetings. Team members repeatedly expressed that sharing
and discussing ideas were important to the final decision.

A central theme in the data was the team's need to be included in the flow of
information. Team members expressed a strong need that information be shared both
among team members and between management and the team. Information is shared
among team members using written and verbal communication; face-to-face
communication takes place between members of different shifts at shift change and in
team meetings. Information flow between management and the work team was
characterized as better than in their previous work settings, but still in need of
improvement. Members cited many examples where the team was excluded from the
flow of important information. They called for recognition as a full partner in the flow
of information and took initiative to seek out that information.

Four core values of interdependence, mutuality, hard work and choice emerged
from the talk and action of the Plant B team members. These core values are very
much interwoven, and surfaced in many of the issues raised by the team and in the
actions of the team. For instance, the information flow issue embodies the value of
mutuality (information should be fairly exchanged, sharing information is an act of
respect for the team's ability to use it) and the value of autonomy (exclusion from
information flow threatens autonomy by denying their ability to be self-directing). Members were observed to exercise their autonomy by taking the initiative to self-direct.

The communication of the Plant B team is a mixed bag of traditional effective communications skills, and inventive feedback methods. Effective feedback in use was illustrated in several examples. In addition, team members used bantering as a way of giving feedback on behaviors or performance. Members communicated to meet the needs of the operation; as they did so, they addressed interpersonal issues as well. The communication of the team strongly reflects shared values. Communication patterns reflect fair exchanges, an orientation towards productivity, and an intent to exercise control over the teams destiny.

Finally, a puzzle regarding team member talk and action was described. In interviews, team members noted that one of the rotating roles on the team was enacted differently by different people. However, observations of team members in action indicated that each person who was observed, enacted the role many different ways, depending on the task and circumstances of the moment. Consideration was given to the idea that at issue was not the role itself but the broader issue of giving direction in self-directed work teams. Questions raised by this piece of the analysis have implications for further inquiry with the team; these will be discussed in the final chapter.
CHAPTER V
FINDINGS FROM PLANT A

Unlike the Plant B team, the Plant A team was born when an existing work group was transformed into a self-directed work team. The realities and dynamics of the Plant A team contrasted sharply with those of Plant B, and shaped a different story about being a team. This chapter reports on the experiences of being a team as told by the members of the Plant A team. The following sections report on the beginnings of the team, the important events in the life of the team, and the team members and their interactions.

Exploring a Team with a Past

The plant, the people, and the team

To begin to gain an understanding of the complexities of a team with a past, interviews with Plant A team members typically began by asking them to talk about work life in the plant before and after the team was named "High Performance Work Team". Conversations with team members were an attempt to understand the historical factors that influenced present day thought and actions and to understand those from the team members' points of view. Because the team was a work group that had become a team, questions were also asked in order to clarify the specific differences between the past and present "team".

"We like it here..." Plant A was described by one team member as "elite". Because it is warm, clean, relatively dust-free and uses no chemicals in its process, it is one of the most desirable production work settings in the company. From its inception the plant was set apart from all the others. One team member spoke of a former Vice President for whom the plant had fulfilled a dream: "There was no doubt about it; we were his favorite...it was one of those things that you asked for it and you got it." The plant's products were very specialized, the system was computerized, and the process was completely new. To meet the challenge of this new system, its operators were "hand-picked". Three of the original work force remain, and many others joined
shortly thereafter. A team member's average length of service with the company is about 20 years; some team members have worked together as long as nine years.

Core values. In order to gain empathic understanding of the team, part of the conversations with team members dealt with those things that were most important to each person. Talk regarding the way things ought to be, what's right, good or important reflect the values of the team members. Some of these responses were direct answers to questions that asked team members to talk about what was personally meaningful, but often people expressed what they believed to be right, important, or preferable in the course of talking about other issues. Since personal values guide people's actions, inquiring into member values was a starting place for seeing the extent to which underlying values were reflected in action. Since within groups shared values may guide group actions, the inquiry was also a starting point for seeing what, if any, values were shared across the team, and how those values might influence team action as a whole.

Although each team member saw the world somewhat differently through his unique set of values, there is also some common ground in terms of what team members believe to be important and meaningful. That a large number of team members expressed a value in some form suggested that it might be a shared value for the team. Two values "themes" seemed to connect the members of the team: the commitment to making good product and a strong sense of what is fair. These themes surfaced throughout much of the talk and were observed in action, substantiating the notion that they may be shared values. (see discussions of naming the team, being a team, and communication).

Commitment to production.

(Question: ...what makes you feel good about what you did during the work day?) "...(a day) without making any bad product...if you go home and you made good product all night long..."

"Well the most important thing is to make good product."

"...self satisfaction knowing that I give them my all, that I came in here and I gave them 8 hours, and I did everything I could to do in my power, to keep that damn thing going, and make good product go out the end.

"It's how I feel at the end of the day that tells me if I did good or not. ...If I'm in a bad mood the system didn't run...or had a lot of problems... off-spec...that stuff just bothers me!"
"Well, I'm not happy with management right now either, but I'm not going to let that get in the way of good production."

"No matter what else happens, the bottom line is putting out good product as much as you can."

"...the operation is important to me... buys everything I have"

"...you take care of the operation, you take care of the paperwork that needs done today, then if you got a little time to, whether it's an engineering thing, or whatever it is you gotta do, then do it; but not vice versa."

"You know, I agree with (other team member): production comes first..."

The various ways that team members expressed their commitment to producing good product indicated that above everything else, the priority is to do the work of keeping the operation running. This theme was so strong for some people that they differentiated between the "work" of the operation, and the tasks that management performs, as though they were something other than real work:

"I think of those two as managers; I think of myself more as doing the work."

"There are some who do wanna do the management parts of the skills, and letting their job go"

"There's some that wanna play supervisor, but don't wanna work"

"That's all supervisors do... they don't get anything done cause they're always going to meetings."

"No, they (upper management) don't come over here; we wear coveralls and we get dirty....I've always had to work and get dirty, and I feel (manager) has pretty much had the silver spoon." (bold added)

Although this view of work was not expressed by all team members, its presence is important in view of the fact that a self-managing work team, by definition, integrates traditional managerial and operational responsibilities. Questions asked about these roles were expressed as, Do you see yourself as a manager? or How would you describe your job? Again, responses varied:

"You're part of a team...high performance work team. I'd rather say that than say I'm a manager. ...I could have been a supervisor a long time ago if I'd wanted to; I never wanted to."

"...process operator...I guess for me I just don't see a lot of difference..."

"We can do this job; we can do this job probably better than any supervisor...we do it better than management."
"(I) work at (Omsco)... I'm an operator"

"...I'm a Plant A operator, first of all."

Another team member characterized his job as "put(ting) out 110%" rather than "just do(ing) what we have to do and that's it."

"Some of the guys get upset with us because we do more then they feel we should... we do some other work that packaging should be doing. You see we have assigned the packaging part of the process over to packaging. If they have a problem where they can't help us like they're supposed to, we say, 'OK', instead of us saying 'sorry, we're going down' .... anyhow some other people won't do that...So, instead of slowing down your process)...right, we'll try to keep running. Even though we have to work a little harder, maybe..."

This production-oriented value has two beliefs embedded in it. The first is the belief that the operation comes first, that above all a team member should always keep his commitment to produce good product. The second is the belief that "real work" is the work of production, therefore managerial work is not real work.

**Fairness.**

"I would feel that I was cheating myself and the company if I didn't come in here and give them a good day."

Team members expressed a strong sense of what is fair and a need for equity in all aspects of their work life. An imbalance, whether in relationships, rewards, or policies, generates a strong response. Many of the team concerns that were expressed during the observation period revolved around a value of fairness.

Generally, people believed that relationships with others should be characterized by give-and-take and symmetry. When relationships at any level are out of balance, tensions arise.

"I'll bust my butt 'til the cows come home; but, doggone it, I hate like the devil to do it and I see somebody setting over there drawing same money I am, sitting on his butt."

"Just like, we send out a skid down to shipping, they tear it up, they just send it back to us... And that's not right to me, I mean, if you tear it up, you fix it."

"...But when you see management prospering, I don't think things (like reduction in benefits) should be passed down to us."

"I get kind of 'p'd' off when things like that happen where, the working man gets hits the hardest and the rich man, or the upper man he's set fancy free. I don't go for that. Never have and never will."
Four members expressed how equity is important in interactions (such as decision making and dialogue) between team members and between team members and support groups. These people elaborated on the notion of fairness in relationship in terms of it meaning having an equal voice.

"...I guess that's where the engineers and everybody's gotta be into the team concept, where you're equal; I'm not saying equal money-wise, but in terms of what you're saying."

This person explained that ideally, in cross-functional decision making, the team member point of view should be considered equally with that of engineers or whomever else was included in the decision; in the end, all parties need to be informed of the decision and its rationale, and acknowledged for their participation in the decision. Another team member suggested that decision making should also be inclusive within the team:

"I think some of us make decisions on our own sometimes that the rest of us ought to be involved with."

Still others implied that a better balance could be maintained if the team had "little bit better support from the support groups..." "If you give an idea and they don't like it...won't tell you why..." These people expressed that there should be "a little more understanding...about what we're doing" and "probably respectfulfulness from some of the support groups."

Equity is important when it comes to recognition of the efforts team members put forth in their jobs.

"...when everybody does a good job, give everybody credit, in my opinion."

"OK what they're doing here is...when we're doing Wally's job they'll pay us $16.56...the lower pay (of the group leader range)...no matter how much experience you've got. I mean, you're doing a supervisor's work, but you're getting group leaders pay, the minimum."

"All I'm asking for is my fair share and that I'm compensated fairly for what I do."

"I don't think that, just because the company's taking something away from you doesn't mean you can't trust them. There can be tough times, and in tough times you gotta be willing to see that, but I think to mess with employees when times are good and the company's prospering..."

Several members expressed the importance of fairness in their stories about lack of adherence to company policies, and precedents that had been set and not carried
through. Two members told stories from their earlier days with the company of having performed jobs for which they should have been paid more money. One person told a story of being one of two people hired into the same position on the same day. He was hired in at pay-grade five, and later "found out that the guy that got hired the same day I got hired, hired in as a grade seven...that one thing the day I got hired sticks in my head and will always stick in my head." Another member who was a group leader, performed supervisor's work when the supervisor went to another plant. "...and they paid me $10 more a day to do that. Well, I was doing such a good job, they decided, 'well, we don't really need a supervisor on days; so we're not even gonna pay you that $10 extra; we're just gonna pay you group leader's pay, to do the supervisor's work.'" Stories of inconsistencies were constant reminders to beware; one member indicated the importance of consistency:

"I think to me to build trust it would take consistency in policies; consistency in whether it's discipline....And fairness in our pay structure or compensation structures. The more skilled jobs should be paid accordingly; there should be a structure through there."

In general, team members shared a sense that exchanges should be fair—whether it is "an hour's pay for an hour's work," an equal sharing of the work load across the team, consistent treatment of associates across the company, or an equal voice in issues that impact the team. When team members sense that exchanges are out of balance, they generally respond strongly. Many of these strong responses were observed throughout the course of the research and will be discussed in later sections.

The two values themes in Plant A were interwoven. The commitment to the work of the operation prompted actions that were the input to fair exchanges between team members and between team members and the company. The value of fairness prompted a questioning of the work of the team. The relationship between these values is manifested in some of the examples given in later sections.

**Becoming a team.**

"...some of it came out of necessity when we first came over here, 'cause Wally was the only boss. ...even though we weren't a team as such it was kind of geared that way. Second and third shift didn't have supervision..."

Early in its history, the plant began to operate under a team-like structure; team members called the group *team-like* because of its low level of supervision. When team members talked about what it was to be a team, they often talked about having no supervision in the same breath, for example, "All of us like the team concept...it's nice
working without supervision." Several comments about how the group was like a team in its early days used phrases like "didn't have a boss." The strength of associating the team concept with "no supervision" is illustrated by one team member's comment:

"You kind of wonder in Maintenance or Shipping, where people work by themselves, why they would have a supervisor...you would think they would be the easiest (place to begin the team concept), 'cause they don't... same way with Packaging...all they have to do is sew bags; they really don't have to interact with much of the process... and I'm confused, why they didn't start with departments like that first?

Whether "team" is defined exclusively, or in part, as a group without supervision, this aspect of the definition seems to be important in the talk of the team members.

In the early days of the plant, one supervisor was responsible for all three shifts. He was generally present during first shift, and was on-call for second and third shifts; the general sense was that second and third shifts functioned without a supervisor. In addition, the supervisor's style was such that when he was present, he delegated some of his responsibilities to team members. In addition to his delegating responsibilities on first shift, and his absence on second and third, team members learned to do some of his operational tasks by filling in while he was in meetings and on vacation. Some of those tasks included:

- figuring raw materials schedules
- ordering raw materials
- making production changes
- writing maintenance requests
- attending meetings in his place.

As a result, team members became accustomed to working unsupervised, learned to perform some of the production-oriented tasks typically assigned to a supervisor, and became confident in their ability to keep the operation running on their own. Consequently, the team members generally believed that, even before being told that they would be a "High Performance Work Team," they were already acting as a team.

Prior to being officially called a team, there were also supervisory functions that team members did not perform in the supervisor's absence; most of those were administrative and interpersonal in nature. For example, keeping time records, attending meetings regularly, managing paperwork, and monitoring performance to plan were still under his control. In addition, the supervisor still made decisions and
had ultimate responsibility for their consequences. One member explained how, before implementation of the team concept, team members would have to answer to a supervisor who would follow up on tasks that were not completed:

"...they did their work...Wally (would say) 'why wasn't this done?'... They had to account to somebody. Now they account to nobody. Well, they account to somebody in a sense, but not like they used to... they don't have to account to nobody in particular, that comes around and is going to say, 'why didn't you do that?'"

Team members then, prior to being designated a team, had some degree of autonomy, without having full responsibility for all facets of the supervisory role.

"We took on more responsibility once they named us a high performance work team. They gave us Wally's responsibilities, broken them up, divided them up"

When the Plant A group became the Plant A team, team members' official responsibilities expanded to include the following:

- ordering raw materials
- recommending production schedule changes
- releasing product on SPC
- monitoring performance by graphing, and by reading variance reports
- completing safety audits, housekeeping reports
- keeping time records
- interacting with people in support groups -- raw materials, analysis lab, production scheduling, trucking, engineering
- representing the team on various committees, task forces
- getting involved in the design of the new plant
- visiting suppliers to work out problems with raw materials
- hiring members of the Plant B team

Team members expressed both positive and negative consequences that they experienced from the addition of new responsibilities:

"I think we're a lot more involved in what's going on."

"Three or four years ago this was unheard of. You did not show an operator this, you didn't show an operator a follow up for assignments, ...it was unheard of! Operators didn't put their word in!"

"...from a standpoint of hourly workers, that's a step up for us to communicate with (raw materials and production scheduling people). I
don't know how other factories are, but 'til this happened, we didn't really do a lot."

"And that's something else you never knew. You used to just come in here and ran...you didn't know what was going on. Now you hear, 'were doing this, we're doing that with this product'."

"Wally keeps telling us there is more to pick up. We are getting ready, I think we are. Next thing is we'll be working with the budget. I don't know how much more there is or how much more we can do."

"...and that's gonna take more time. I mean, something else is gonna have to be left go..."

"you're always busy. And there isn't the time to keep (the plant) clean like we used to."

"I think some guys just got their heads thinking too much on some things besides their process"

"now we have some guys that wanna play supervisor"

"When Wally was back here, blame went to Wally, and now it's sort of, each other, ... it's different."

In sum, the history of the Plant A team began with the opening of a plant that was distinguished by completely new processes and product. A small, select group of people had succeeded in running the new operation efficiently and effectively with a one supervisor over three shifts. Guided by core values of a strong commitment to the work of production and a strong sense of equity, team members carried out the responsibilities of a production operator, and some of the production-oriented responsibilities of a supervisor. Members came to call themselves a team not only because they worked together in sync towards the goals of the operation, but also because they did so with little supervision.

What's in a name?

The official movement of Plant A to what is known among team members as the "team concept" came about through a formal announcement to the group, followed by one-on-one discussions with the supervisor. The inception of teams in Plant A coincided with the decision to staff the new Plant B plant with a work team. The supervisor's announcement that he would become "facilitator" of both teams explained in general terms what changes could be expected:
"...It directly effects you and your jobs as you know them now...it will mean that more of my duties will shift to you...I see this new concept as a spin off of our present jobs in Plant A to build on the opportunities to take on even more ownership and more control of your work day....During the interim, the decision has been made that the lead operator... will be compensated by being paid the hourly rate of pay-grade 9...this decision of compensation pay is only during the transition period. Once the Pilot Program has become reality another pay structure will need to be developed and determined. Again I will say there are many unanswered questions, and again that is where the challenge lies for you as a team to help solve and implement those issues."

So it was that in February, 1992, the "Plant A team" was born.

"before they called it a team, the team they was perfect--everything just clicked! And after they called them a team, things started going different directions...just fell apart."

Most team members' stories shared the common belief that for years the group had "clicked"; it had run smoothly, people had worked together well, and they had the production record to show for it. Some team members believed that the department was held as an exemplar for the company, and that the group's success prompted expansion of the team concept.

"...it was just a nice place...just ran smooth, everybody cooperated, ...everything got done like it's supposed to be"

"if they brought somebody into this company to show a department, they brought them to Plant A"

"and that's why I think they chose our department to try this in, because that's just the way it works."

"And then the production and everything seemed to be so efficient, that when they got to looking at the team concept as such, I think they looked at the efficiency of Plant A, and how it had been for years, and then they came in and ... thought we would be the first one and tried to model from us."

Team members had liked the team as it was. Several members indicated that naming the team "High Performance Work Team" was a critical event in the life of the team; from that point on there was a change in the way the group acted and interacted.

"...my feeling is that there isn't one solid team in Plant A right now...before the word high performance work team was announced, there probably was."

Three issues connected to the naming were raised. The first was the belief that the group was already a team.

"See, we'd actually been a team since '84..."
"...my feeling at the time it was announced that we were, they were wanting us to be a high performance work team; that we were already a high performance work team and that we had been a high performance work team for eight or nine years, because we'd done everything on our own, made our own decisions, made production changes."

As noted earlier, a commonly held definition of "team" was a group without supervision, and to a large degree this group had met that criteria for years. Clearly, the team's past results had indicated that "high performance" was an appropriate term for them. And since "work" was a major part of their shared value system, the fit was perfect. It was easy for the group to define itself as a high performance work team: a group that could run a highly effective production operation without supervision.

If the group believed itself to be a team, then what signal was the naming sending? Was it an affirmation of what they had done? One member suggested that when he said that the team was to be a "model" for the rest of the company. Was it a signal that a high performance work team was something different from the team's definition? Uncertainty about new responsibilities and the new nature of the work raised this question. In this sense, the naming was a signal that things would never again be the same.

Secondly, the manner in which the naming took place was interpreted by some to be "take it or leave it":

"When they brought the team back here, they didn't ask us, do you want to be on a team? They told us this is what we're gonna do. This is it! We're going to the team concept. And I said 'well, what if I don't want to be on the team?' I was looked at very calmly, and said 'Bid out.'"

"In the first place, we were forced to do it actually. Management won't say this, but we was actually forced to do it."

"...there was even some statements made like, 'we could find places for you somewhere else.' We don't want to work any where else; we like working doing what we're doing, we like working together..."

Third, the naming of the team became linked to long-standing dissatisfaction with compensation.

"...the one thing that changed more than anything, soon as they started calling it a team, certain one's started talking more money..."

Several team members explained how expectations that had been built about compensation had remained unmet and left festering for years:
"...(When I decided to come over to Plant A, I was told) 'well, they're thinking about--since they ain't got any group leaders, and only one supervisor--they're thinking about moving us up, at least to a grade seven, or maybe even an eight.' He didn't guarantee me, but they talked about it."

"(I was told) ... 'it's a pay-grade six job, but I am just, so sure that it's gonna be pay-grade seven--they're evaluating it. It could go into a pay-grade seven so easily.' Well, ... I'm still pay-grade six..."

"they promised us a grade seven, and we didn't get it... verbally promised us a grade seven. (He) told me personally that he thought we deserved a grade seven, they were working towards it. Nothing ever came of it."

Not only did some members believe that management had indicated that they deserved to be paid more, but that indication was validated by comparing the team to other areas.

"And I feel that we should have been a grade seven, because at the time, (compared to what) (another plant's) operators were doing, we were head and shoulders above any other process."

Finally members recalled their aforementioned personal experiences with inconsistencies in the company. There was a skepticism about the naming that was tied to a pattern that team members had seen throughout their history:

"What happened is, we went ahead and did the work, and it's almost kind of a replay over and over again."

One member summarized this third point as follows:

"You know, we had this on the back burner for a long time, and we'd mention it for a while and then we wouldn't mention it. It never really went away but we didn't dwell on it that we weren't getting it ... But then, once they said, hey, you guys are a High Performance Work Team--well, where's our money then if we're a high performance work team?..."

It was on the issue of being compensated for the extra work of being a team that the core value of fairness was observed to strongly drive team member actions. Members of one shift took up a personal crusade to fight for fairness in their future compensation. In addition to carrying on an on-going dialogue amongst themselves concerning the issue, they had acted together to tenaciously voice their concerns wherever they had an audience, to call the National Labor Relations Board to get information on the legal issues of teams, to meet with the plant manager and with the company president, and to compose letters regarding the state of the team to "make people stop and take notice" of the issue. Their actions to "even out" perspectives on the team, and to ensure fairness were often interpreted as resistance to the team concept
and as disruptive to the team. In this example, the official naming of the group as a team, and the responsibilities associated with it, when viewed through the lens of core values prompted actions that became one source of tension in the group.

In summary, the naming of the team was said by some to be a turning point in the character of the team. The introduction of the "team concept" brought about broader and deeper responsibilities for team members; at the same time, it touched on the two core values noted earlier. For example, the value of commitment to production was challenged by new responsibilities that changed the nature of work; this was expressed as team members shared concerns over members not being able to pay as much attention to the operation. The value of fairness was called forth as people expressed concern over being compensated fairly for these new responsibilities, and reacted to not being given the choice to be a member of a high performance work team. Naming the team not only spoke to the team's value system, but also called up past histories that had shaped member perceptions over the years, for example, scenarios about inequities in compensation. The event of becoming a high performance work team changed life as the team members knew it; that change was felt as a tension--internal, between members, between shifts, and between the team and management--and was a pervasive theme throughout the observation period.

Life on the "team"

Conversations with team members expressed the tension and change they felt since becoming a team. The following section focuses on what team members said about life in the team since the change. It first explores team members' notions of team-ness—that is, where the group felt like a team and where it did not. Next, members expressions of conflict on the team and their views on addressing that conflict are discussed. The last part of this section covers team members' perspectives on team meetings.

Team-ness - what is it to be a team? Some team members commented that the individual shift, rather than the three shifts combined, is really what felt like a team. One member indicated that each shift "might consider themselves a team", but he did not see where, "all three shifts work together as a team". That the shifts function like "three separate teams" was supported by stories about synergy that were confined to the shift only.
Members from every shift told stories of how the shift teams worked in sync, how team members helped each other and in many, how they cases knew what to do without talking about it first. I observed this sort of interaction on one shift, as two team members worked together to set up the packaging operation for the next run. One man was setting up the the bagger, filling a bag and weighing it. Another man was adjusting the settings on the robot to correspond to the product. They traded off periodically between their tasks, as if to check each other's weights and adjustments. No one gave any direction; the two men appeared to know exactly what needed to be done to start up the operation, and there was minimal talk between them.

In addition, team members told other stories of what is generally referred to as "working together well":

"...you don't have time to stop and think about it, you just say this is what's gotta be done to keep this thing going, and we did it. (D: And somehow the 3 of you just knew which way to go.) Yeah, we've worked together so long, that ... Now (other person on the shift) might have had a little more trouble cleaning the (equipment) than I do. (He) says I'm not real mechanically inclined...you could fix it while I was thinking about what I'd have to do to it.' ...that's the way our team works back here."

"we're always asking each other, we're always advising each other on anything and everything."

"We click. I think we all three have the same values...and I respect them 2 guys back there ...and I hope they have for me."

"(one person on the shift is) more business, like the math and that; and (he's) pretty organized. (one person on the shift) don't like the math part, he don't really totally like the computer, but yet he's a hard worker and he'll clean up; and plus he'll even try his share with the other--not like he doesn't do it, but he don't like that...and he loves doing (maintenance work)...I'll do a certain amount of maintenance, but I look at it that, after a certain point that's not what I'm really here for. So I guess I may fall in between (the two). Like, I really enjoy doing the math part, and doing the ordering, and all this, but I don't memorize the numbers like (one person on shift)... I don't really get into it to that extreme, yet I enjoy doing it. I guess we just kind of all fit in in a blend."

"So, while (one shift member) is setting up totes, (the other) is watching the computer. OK, I may have to go out and fill the (raw material) tank up, (the member on the computer) may have time to help fill (raw material) tank up... while (one shift member) is down (talking to maintenance), I go over and watch those boxes over there for him. We just work together, you know, we don't say this is your job, you go do that job... (D: It almost sounds like each of you know, it's almost like choreography, you know..."
when to move.) ...And that's the way it's been since we started this plant."

"if I know I need to go do something...I never think to stop and tell (other person on shift)...you get to the point where you know when a person's not here; ...me and (that person)'s got that feeling. ...There's a lot of times (he'll) say something and I'll say I was thinking the same thing, you know, you work with a person so long that you basically get a feel for what they're thinking about..."

These examples came from members of all three shifts. There are some commonalities in their descriptions of working as a team. Being a team has to do with the ability of the people to "work together" in a flow that often requires little verbal communication. Members of a team have complementary skills, and they share those skills with each other. Being a part of a team has a feeling of closeness. As cohesive groups often do, it was not uncommon for team members to express a sincere feeling that their "team" was "the best":

"I think we're the closer knit, and the smoother working team of the bunch.."
"I think we're more together than either of the other two shifts." 
"of all the 3 shifts...we have the best team." 
"I don't think (the other shifts get along) like the 3 of us do..."

It seemed apparent from talk within each of the shifts that there was a strong sense of team-ness--of being a team--on each shift.

In addition to recognizing what a constituted a good team from their experiences on their shift teams, people also recognized within the total team some of those qualities. Members pointed to a track record of efficiency, to "good workers" who "care about the process or care about what they're sending out the door," and to "a broad diversification" of people as some of the strengths of the total team.

In general, however, the group that was officially designated as the team did not feel as much like a team as the individual shifts did: "Well, I don't feel like we're a group now.. I feel like we're two or three different groups." One member indicated how an exercise in the team skills training foreshadowed the present day pattern of the team: a great deal of cooperation within the small groups but not across larger group; "That's the way it is now." Another member expressed his frustration that "if you want efficiency and a good team" a coordinated effort in terms of priorities was needed. Without that sort of coordination, the team would get to the point "where you just let every shift do what they wanna do" or where they would just "do it their own way".
Tensions between shifts.

"I think there's a lot more tension back here (between shifts) than there was
before. You know, it's not anything that's gonna keep us from doing our
job..."

"... it's just hard to get along with day shift the way they are right now, that is,
I don't know, they just... they're just not what they used to be."

Team members expressed an understanding of what it is work together as a
team from both their past experiences with the whole team and from on-going
experiences with their co-workers on the shift. Members understood that the entire
team needed to be able to work well together, but as they talked about their experiences
some felt that certain tensions were a barrier to doing so. However, this tension was
experienced differently by different people; one member said little about it in his
interview. Another team member commented that he hadn't really thought about it
until it was talked about:

"I think you read the article day shift put up on the communications board
about the dissension between shifts--well, there might have been
dissension between shifts, but we didn't recognize until they're telling us
what's going on...

...I don't know who they were referring to, about dissension with shifts ..
because I know (the two other shifts) get along; we may not act like it
because we, especially I, tease a lot, but we get along really
well...together...

...I don't like the dissension between the shifts, if there is dissension and
apparently there is because they say there is! ... (laughter)"

Thus, the issue of what the tension is about, and just how much tension there is,
varied between team members. Generally, though, team members expressed various
feelings of frustration, resentment, and even disappointment over the state of the team.
The following are some representative comments of some of instances in which team
members felt tension:

When others do not pay proper attention to the operation: "They spend too
much time sitting in the control room, discussing this and writing this and
doing this and doing that, than worrying about tite operation."

When others speak for them: "You know, when I found out they wrote a letter
like that, ... I said it had better not say 'Plant A team' on it because we
don't feel that way."

When people are excluded from decision making: "I feel left out at times.
Now, I realize that on first shift, they have to make a lot of the calls
because that's when people are here. But I think there's some things they could ask about at times and they don't."

When there are interpersonal differences: "I brought stuff up ... they more or less say, 'Who's he? He don't work on our shift.' I don't have any trouble if someone comes up (and raises a problem) but it seems like other people do. ...'Who's he to tell me what to do?'"

**How can the team address interpersonal conflict?** The issue of addressing conflict between team members was raised by several people. There are among team members several different views about the importance of this issue, and how it might come to be resolved.

One view of how tensions could be addressed was to have someone in a position of authority resolve it. Some team members suggested that the fact that there is "no boss" means that team members lack the power to resolve interpersonal conflicts, particularly when they occur between shifts.

"When Wally was back here, blame went to Wally, and now it's sort of, ... it's different... You always blame the boss; now there's no boss, so you're blaming each other. It's difficult."

"But if (the other) shift had've done their job, and checked out the equipment some time during the (shift), this wouldn't have happened. (D- What do you do about that?) You say something to 'em, but who are you? You're not the boss."

"Peer pressure might work on a shift, but it's hard to work a shift against a shift. If it was a one-shift operation, peer pressure would probably work pretty good... trouble is how, when you've got three shifts how do you...how can you put peer pressure on... (one shift) or (the other shift), vice versa."

It was suggested that a third party, the facilitator, may be responsible for doing this.

"...if you do have a discrepancy, or someone's arguing he's supposed to step in and get it sorted out...."

The facilitator... "comes in and takes care of the differences between shifts, that he irons out the problems."

In fact, the team had a history of using the facilitator to resolve issues interpersonal issues:

"...(regarding a problem we had with another shift) we've talked it over with Wally. Now whether it goes any farther...if it goes on to the other shifts-- We think, it must have here a while back, because ... they weren't helping the cause. (and that) shift has been doing better..."
When asked if resolving interpersonal differences was one of those managerial responsibilities that the team was supposed to take over, one person said, in reference to the facilitator, "...he's still supposed to do that." When asked the extent to which the team members should be able to work out their own problems, because they are a team, the person replied, "I think you gotta have (a neutral party)...that's what Wally's job is." Furthermore, as another team member put it, to take on this responsibility was to be asked "to do a lot of the dirty work that never got done around here for years." The person implied that following up on performance problems, like those he perceived, had not been done when there were supervisors, "Well, hell, when we had bosses they didn't worry about whether the guy did his job."

The team member believed that the facilitator had to take authority, in order for the three shifts efforts to be coordinated:

"You can go to a meeting--and it's just like it was when Wally was supervisor--you can go and you can voice gripes, and wanna work something out, and then basically everyone goes back and does what there shift wants to anyway. ...without the facilitator taking some authority..."

When asked if authority-taking on the part of the facilitator takes authority away from the team, the person responded:

"I guess I'm not saying that he has to take it away, but maybe be the enforcer. 'Cause if the team's said this is what we want, and a shift isn't willing to go do it, then somewhere you need somebody with power to say, 'Hey!!.'"

For some people on the team, then, resolving differences is thought of as the work of a managerial figure rather than the work of the team. Literature on facilitating teams concurs with this view when teams are in the early stages of development, however, eventually teams take over resolving their own differences (Heron, 1989; Orsborn, et al., 1990).

Another view of addressing conflict was to have a team member rally the troops. Developing teams sometimes reach a point where a leader emerges from the ranks (Orsburn, et al., 1990). One team member felt strongly that a particular person on another shift had the qualities to pull the team together:

"I think (he) could be a leader but we're not supposed to have a leader. But I don't think Plant A can get together unless (he) gets us together. That's just a feeling I have... I look up to (him), I guess...But if he's not the one to bring us around to get us as a unit, I don't think anyone will..."
Some members took the view that interpersonal problems were a natural, inevitable part of work life, and could be managed by the individual.

"..even if shifts have supervisors, I think they always have that going... personality conflicts between supervisors, be the same thing with teams... I think the bigger the group the harder it is to do..."

"Uh, (another team member) and I have had our ins and outs. He's questioned some of my work ability at times, and I take it so far and I get hot and I'll say something. So we've had our problems, but we've also come out and talked about it."

"I've got some personal problems with some people, you know, but I can overlook those."

...so I try to communicate the operation, whether we get personal or not, that's no interest to me... you know.. there's some people you like and some people you don't get along with no matter what

A fourth view that was expressed about how could the team could address its differences was to somehow have the group together at once on a regular basis.

"I think if you'd ask me what an ideal situation would be, it would be to have one shift. Can't happen here, I realize that... but it makes it so much easier.... cause everybody's there."

"I guess I have a different attitude than most. Seems like it'd make everything easier if people communicated."

Many people indicated that having everybody together held the potential for resolving differences.

"The way I look at it, my opinion, you should have team meetings; if you've got a problem you ought to be able to bring it up and solve it."

"I think we'll have to have team meetings ... or we're gonna stay three separate teams, each shift will have their own team."

"Seems like we've only done it a couple times (met as a whole team on weekend)...I think it was (helpful)"

Although a majority of team members commented that team meetings could be instrumental in unifying the team, the group had not held regular team meetings. For a while team members had met following the safety meetings they attended, but for the most part, planned meetings with all members present, for the purpose of discussing team issues, was not a communication medium used by the group.
Barriers to meetings. An interesting contradiction surrounded the recognized
need for team meetings. While most team members could envision the benefits of
communicating issues through team meetings, most everyone could also give reasons
why the team could not have them.

"It'd be nice. I think it'd help a lot; but with the type of operation we've got
you can't do it."

The primary reason given was that, because the plant is a continuous process
operation, it would have to be shut down.

One team member recalled that in the past they had had team meetings on
weekends, however, a seven-day work schedule now made that impossible. He
added, "Only way I can see (to have team meetings) would be to come in on
weekends; there are guys don't want to do that."

Several team members noted ways in which team meetings could be costly to
the operation, both in terms of overtime that would have to be paid, and efficiency of
passing information:

"and that's another expense we have to pay, that's overtime if we go to a
meeting, you know."

"it could probably be done quicker that way (passing communication on down
through the shifts) and get completely back around here to the original
person, probably by the time we say, we need to set up a meeting and talk
some things over ... it's got to be done right away"

Another argued that shift change or written communication was as effective as a team
meeting:

"And that's one reason I feel we don't have to have one meeting with
everybody together at one time, you know at a certain time each month or
each week .. we can usually get together by just, just communicating
between shifts."

"We put things up, we've been putting notes up on there (points to bulletin
board)...Just little things here and there, that's how we communicate."

The issue of fairness to off-shift team members was another concern:

"...the meeting's going to have to be during the day, I mean, that's the logical
time to do it, ok,... third shift people, sometimes people sleep in the
morning and sometimes in the afternoon, either that or second's going to
have to get up and come in a seven in the morning, one of the two... I can
never see that it's that fair."
Even if team meetings were possible, some members viewed team meetings with skepticism:

"As far as having a meeting, I don't think it would really help us out."

"you can have the meetings, and it don't change a whole lot...you can go and you can voice gripes, and wanna work something out, and then basically everyone goes back and does what there shift wants to anyway."

"I would think they would take offense if you (called a meeting to raise inter-shift problems)"

"I think ...if no one else seems to be worried about (having team meetings), then why should I? You get frustrated."

"...to have a meeting just for the sake of having a meeting is-- if you can get by without it, why have it, you know."

"A lot of us, I don't know, we sort of feel that there's too many meetings going on anyway."

"That's all supervisors do; they don't get anything done, because they're always going to meetings....they had so many meetings...Why are they supervisors of a plant if they're not going to be in the plant running it?"

In summary, an underlying theme across the Plant A team was disunity. Team members felt more like a team within their shift group than they did with the whole team. Tensions between persons and across shifts were perceived differently by the team members, but most recognized that there was some interpersonal tension. To address the tension, members suggested a variety of approaches. One widely recognized approach was to communicate with one another face to face. While members acknowledged that this could be done through team meetings, they could also cite many reasons for not to doing so.

**Communication patterns of the team**

Face-to-face communication across the group was limited by the absence of team meetings. In the absence of a forum for inter-shift communication, members often relied upon other forms of communication to share information. These were brief meetings between the shifts at the change of shift, written communication, and bantering as a feedback mechanism.
Shift change communication.

"Well, I've always been able to communicate between shifts...not everybody gets along and you may not communicate like you should, but, we'd always try to communicate what was necessary... as far as the operation goes."

Team members used communication at the shift change to share important information about the operation. Sharing information with the next shift was likened to passing along information to the supervisor in the days when two shifts were unsupervised; "...so, now we just pass on to the other shifts what we usually passed on to him..." The communication between shifts is brief, but covers the essential information to keep the operation running; "We tell 'em what's going on and we wanna get out of here; we got things to do." Examples of information passed along at shift change includes changes in production schedules, problems with the equipment, and the status of samples taken to the lab. One member also pointed out that shift change also provides an opportunity to pass along ideas; "...the person that has the idea, he tells the one shift, and then when he sees the next shift he tells the next shift, or he'll tell one shift and they will pass it on." There were differences in opinion as to how well shift change communication works. One member suggested that it was effective enough to take the place of team meetings nearly all the time. Another member expressed frustration that, "Sometimes I wanna tell them what went on and they're not interested...Sometimes I want to know about things and they don't talk about them."

Written communication. In addition to verbal communication at the shift change, team members used written communication as a way of passing along information. A precedent for written communication as an appropriate form of communication had been established by the former supervisor:

"Wally would leave notes in the book for what (the two shifts without a supervisor) were supposed to do. And that's what they went by, the notes in the book."

"...he usually left (a list of) things he would like to get done- clean-up or something like that."

Team members became accustomed to passing on information in the same manner, by entering important information into the log book. In addition, members posted notes to the rest of the team on the bulletin board and the windows of the control room. Examples of information contained in these notes include information from committee
meetings to be shared with the team, information from research about test runs, and
information pertaining to raw materials shipments and unloading. Members seem to
find this method to be an effective way of passing on information about the operation,
but some noted that the group was not using the log book or leaving notes as much as
they had in the past.

Banter as feedback. Bantering (teasing, joking, poking fun) is an important
part of team communication; people use it and respond to it. Team members were
observed joking amongst themselves, teasing each other, and teasing the researcher as
well! Not only did banter seem to be a natural part of the team's character, but it also
seemed to serve a number of purposes for the team.

The banter observed was used two ways. One form of banter was a good-
natured teasing for the sake of humor, a form a play, a way to have fun on the job.
Teasing each other is a way of life and a way of expressing camaraderie; as one team
member said to another during one visit to the plant, "Would she be offended if we act
normal?" Many people talked about the teasing and "poking fun" that was a part of
their work life, and some shared some stories about having fun on the job.

"I think I have a way of bringing the best out of some people. I guess I pride
myself in stuff like that, where a guy like (fellow team member) ... I can
tease around a little bit and bring him out of his shell, because he and
(another team member) both are different personalities than what they were
when they first came to (this shift). I think we're having more fun together
because I do so much teasing..."

"We get a lot of work done but we have fun at it."

"I've been teasing Wally and (co-worker on the shift) the last couple of days
about Plant A being made up of four different teams and two of them's on
this shift... Just teasing (co-worker), really, because we're a good group
on (this shift), we're united. ... I tease him about everything. I constantly
tease (him). He's just a real good friend."

(Two team members are making jokes about someone in the company...)
Team member 1: "...we have Donna blushing here...we're just devils..."
D: "no that's all right; I'm just one of the guys"
Team member 1: "well, you're one of the better looking guys around here
then. A lot better looking than (team member 2)!
D: "Are you gonna take that, (team member 2)?"
Team member 1: "He don't have a lot of choice (goes on to tell stories of how
team member 2 teases him regularly) but I get him back once in a while.
He gets so damn far ahead I'll never get caught up."
Team member 2: "I asked him--he told me, I'm gonna kill you, (team member
2)--and I asked him, did you ever notice that I don't do that to (team
member 3), or I don't to do that to this person. Do you ever wonder why maybe that is? Should give him some kind of indication right there why this happens."

Team member 1: "He picks on me because I'm a little kid. They always do."

Team members gave examples of how they also used bantering as a way of giving feedback to each other about performance and behaviors:

"I think what you can say— you've seen us talk to (a person on the next shift)—think most thing you can do is throw a barb at somebody; and that's not right, but that's how it ends up. There's a barb thrown at somebody (who) leaves you in a mess, ... you throw a barb at them and let them know that you know they did it."

"...sometimes (this person) just makes a crack. One time he said—well (my co-worker) had to stay over for four hours on (the next) shift and (the person) said, well, what did (I) do all night or something like that. And (my co-worker), he told me what (this person) said, and that night, I took two pages and I wrote down everything I did that night (laughter)—and that's going to the bathroom, too—... and put time down with it; and I filled 16 totes that night and he's saying we're not doing anything. And I wrote it all down, and I was hot. I wrote it all down and it took two pages. And he came into the control room. I had it laying on the counter and Wally walked in. This has been a year ago, maybe two,... and Wally walked in and said, what is this? I said, (this person) didn't think I did anything last night so I wrote it down, everything I did. And, if I'd been slacking off, and there are nights where you can slack off... but that night I had been busting my butt all night long cause that was the process, and (this person) came in and I handed it to him and I said, here is what I did last night, (name). And we sort of talked it over a little bit..."

Non-team members similarly give feedback about their feelings about the team:

"Like one day (Frank) seen me, and he said "how's it going, trouble?" And that bothered me at first; 'Trouble? How'd I get that name trouble?' But if the man wants trouble, I'll give him some trouble; I do little things; me and (he), we get along pretty good."

"(The three of us) are kind of agitators anyway, so some of it kind of comes back; ...typical of what you would probably get at another company...some comment (like) 'Oh, there's the high performance work team' or this or that,"

Although using a barb or a joke to give feedback breaks some of the rules of what is typically considered "effective feedback" (for example, being direct, specific and objective), it is a way in which people give and receive information about what they are doing. One might speculate that it may even be an effective way that people give and receive information, if everyone understands the rules of the game. In the
example above, the one team member understood that the other team member's "crack" was meant as feedback; the event led to the two confronting the problem face-to-face.

However, the meaning of a banter event is not always this clear. Interpretations of the meaning of a particular piece of banter depends on some knowledge of the context in which it was said. The following example occurred between shift members:

(At the end of one shift the researcher asks if she had taken up too much of the team's time. He responds with a laugh, "No. The more time you take with us the more we don't have to go out there and clean up!")
Shift x person: "What about you? You never done any clean up out there anyway!" (laughing)
Shift y person: (loudly) "Bull Shit!! You ain't never around to see it!" (laughing)
Shift x person: "when I come back in the next (day)...like (just the way) we left it" (laughing)

To understand whether or not the shift x person meant to communicate to the shift y person a message about dissatisfactory clean-up efforts, one would have to know the nature of their relationship, the clean-up record of the shift y person, and the recent events in the operation of the plant. Based on words of the two persons (from interview data) and the researcher's present understanding context, it is unclear whether or not this bit of bantering was expressed in fun or as a message. The intent here is not to determine here the meaning of this particular example, but rather to demonstrate by example that the use of banter as feedback relies on a shared understanding of the relationship and context factors.

In summary, the communication among the Plant A team members primarily used shift change, written communication, and bantering as ways of passing information across the shifts. Shift change communication took place in a short time frame between two shifts; the substance of the communication was generally information about the operation. Written communication included notes and log book entries and was also predominantly production oriented; the former supervisor had established a strong precedent for written communication between team members. Members differed in their views as to the effectiveness of both the shift change and written communication. Bantering was used as a feedback mechanism at the shift change and in written communication; remarks made in a teasing manner relayed information about performance and behaviors.
Communicating face-to-face: The team meeting

The findings in the previous sections uncovered several key points. First, the team had an appreciation of what it was to work together well as a whole unit. Second, they had recognized that tensions had increased and their communication had become less than effective. Third, they acknowledged that team meetings might be a way to unite the group by enabling communication between all members of the team. At the same time, members resisted having a meeting, as illustrated by the numerous comments as to why a team meeting was not feasible or necessary.

A significant communication event occurred in early May when at the facilitator's insistence, the plant was shut down for the team's first meeting since the observation period began. The events of that meeting and the communicative actions of the members are the subject of this section. The events and actions are described using both paraphrasing by the researcher and the words of the team members; those descriptions are interspersed with summaries of communicative moves. For the purpose of maintaining anonymity, team members are referred to using numbers rather than names.

The team meeting begins. Prior to the meeting the facilitator had asked members to list topics for discussion on an agenda sheet. The facilitator began the meeting by listing those topics on a flip chart:

- "Support groups"
- "Running on low pressure filters"
- "(Raw material) storage tank"
- "Setting priorities for the team"
- "Taking care of internal problems"

Due to the one hour time frame of the meeting, he took a vote to determine which item would be the topic of the day's discussion. The majority vote was for "taking care of internal problems." He then asked the person who put that item on the agenda to lead off the discussion. From this point, the facilitator sat back and took notes, and did not speak except to move the group process forward, and to bring closure to the meeting.

The team talks. 3 described what he saw as the issue,

"OK, I guess in my view, ...I'm not sure where we're working toward a common thing. I'm not saying that every shift has to dump raw materials. ...
thing; I don't think we should tell the other shifts what to do. But, you know, there should be some contribution there...

and then gave two specific examples:

"...Like, there's times when we don't dump (raw material) and we'll come in and we don't see where there's been anything else done...we'll come in and we'll see the nozzles haven't been taken care of as far as new screens put on..."

"...It seems like we're not getting toward a common ground."

At the end of 3's comments, the facilitator suggested that the discussion proceed around the table, with each member having a say. Members of the two other shifts took their turns by explaining their rationales behind one of the problems 3 cited:

4: "...it seems like there's times whenever we do dump quite a bit of stuff, we get it too far ahead...Those totes...seems like it just takes up more space than...if you just leave things the way they are...As far as the housekeeping, I think we all could do better on that."

5: "As far as the totes are concerned...you're not using that much, you don't need that much ahead. I use the same totes all the time, I just pull a tote down and fill it and set it back up. That's just my way of doing it."

Thus, the first three team members to speak discussed specific behaviors relative to the task. In response to 3's statements, 4 and 5 gave their rationales for viewing the tasks as they did. 3 had opened the door to a range of possible responses by making the general statement "we're not getting toward a common ground". The responding team members chose to confine their responses to the domain of the task.

The next person to respond had brought to the meeting a copy of a letter composed by the members of 3's shift. Tensions between shifts had been highlighted and amplified by two letters composed by the members of one of the shifts. Both letters, one authored several months before and the other the month prior to the meeting, pointed out problems on the team as perceived by the authors. The letters were intended to point out the "reality" of the team; the authors believed that the "team concept" was not "going as well and fair as the company would like everyone to believe." The letters contained their portrayals of life on the team. Some members had expressed that the earlier letter had misrepresented the views of the team—that in fact, the letter reflected only the views of one shift. The later letter exacerbated the situation by making references to dissension within shifts, and to people not performing their jobs. Implications of underperformance struck a blow at a core value.
7 began by referring to the letter and its contents, stating a value, then stating his view of his work and his rationale for doing what he does in his job:

"Well, I'm looking at the letter that first shift signed off...it pretty much states what 3 was talking about..."

"...I realize that everybody's got their own opinions, I'm not saying mine's always right, I'm saying everybody else's isn't always right..."

"...I'm a Plant A operator, first of all; I'm not a shipper, ...I'm not a raw materials rotator. (He went on to explain how he organizes the receiving area because of his shift's responsibility for raw materials inventory.)

He then gave two specific examples of activities—moving totes of raw materials, and shipping out some off-spec materials that he considered a safety hazard—for which he had received criticism, and pointed out a contradiction:

"I've gotten some negative feedback (that those activities ) weren't necessary, but here in the last few days, things that I were doing, was being done on day shift and seem necessary now."

After presenting clear examples, he named the problem: "I think we've got a problem with inter-communications..."

Next 7 confronted the authors of the letter and asked for specific feedback and clarification:

"...where we're having a problem with dissension within and among shifts, I'd like for one of you to define that dissension..."

"...and if you feel it's on another shift I'd like for you to give me an example of that..."

"...if you feel there's dissension on another shift, I'd like to understand why you feel that way"

"...or if you feel that dissension is on your shift." (bold added)

To this point, 7 had presented his viewpoint with clear examples, named what he saw as the problem, and asked for specific information from the others. 7's expression of his view shifted the focus of the problem from task to interpersonal issues.

The first team member to respond to 7's request was 2. In the ensuing discussion the two men exchanged feelings and constructions of the situation, explained their actions, provided both positive and negative feedback, and then came to agreement on a point. In addition, 7 named a member of 2's shift as a potential leader of the team.
2: "All we can see is attitudes sometimes...when we come in...maybe it's because you're tired, but we get the feel that that is a negative attitude toward things."

7: "You're right, there is a negative attitude toward things because of these type of letters that we get that we're named as conspirators...trying to defeat the purpose of the team..."

"...I made a comment...that I think the only thing that can make the team work is 1. I said if 1 doesn't step up and do something, I don't think any thing is going to happen...I think he's one of the most intelligent people in Plant A...but he hasn't done anything yet, and I'm hoping he'll do something."

2: "What do you mean he hasn't done anything?"

7: "As far as working toward the team goal...

...I don't see any reason for (letters like this). You're naming names, you're accusing people of things..."

2: "Told a story about his shift purposefully moving totes of raw materials to one location, only to find the next day that another shift had moved them somewhere else.) "...that's like pouring water down a rat hole...We've got to work around Receiving, you guys don't have to work around Receiving."

7: "Yes, we have to work around Receiving also."

2: "Not to the extent that we do on (our shift)..."

7: "It wasn't very long ago that you didn't care what happened to Receiving. It wasn't very long ago that that was your least problem."

2: "Well, we have found out that if we work with them, we've got a differ fellow over there to work with now, he will work with us. And we've been working with him...he's helping us and we're helping him."

7: (Explained the reasoning behind the location of the totes, and how it changed depending on the situation)

2: "There's an exception to everything, but..."

7: "Sometimes they're in the way and sometimes they're not...You're right, sometimes things are done that way, sometimes there's a problem, sometimes it doesn't work out to be a problem."

There were significant turns of events noticed in this discourse. The two men clearly articulated their differences. Each made a gesture of openness towards the other. 7's praise of 1, against a backdrop of his negative feedback sent the message, 'I don't like the behaviors you've engaged in, and I very much respect a member of your team.' 2's disclosure that his shift has learned to work with someone in Receiving, sent a message that things can change. Immediately following 2's disclosure, the two men began to find some common ground and ended the conversation on a point of agreement.

Next, 3 responded to 7's request by giving an example of what he had noticed as dissension on 7's shift; "whether it was or not, when we come in...it really seemed like it was a stretch there, where there was a big riff (between 7 and 8)..." 7 explained that the two of them work together well, and disclosed "When he first came back, I
didn't think we'd be able to work together at all, because we'd been in competition a lot together throughout our lives...but I think we've worked together real well."

3 now shifted his focus to clarifying what he considered to be evidence that would indicate that the shifts were working towards "common ground":

"I'm just saying, if we come in, and maybe you guys think we should clean up more, well, that's your opinion and you've got a right to that. But if we're doing something...and you can see that, we've contributed something to the team..."

"...But...(if we do) a clean-up inspection and we've got things wrong and (we) come back in the next day and they're the same way. Where you see...somebody's changed nozzles and nozzles are laying on the table..."

"...What I'm saying...if you don't want to do what we're doing, you don't have to do that, I'm just saying somewhere we should all be contributing something toward...but if we've done something. You can see the results that we've done something. You know we haven't just, you know, let everything go."

2 summarized 3's remarks by saying, "Everybody's got to contribute to the common goal of making it work. Whether it's cleaning up or what it is. Getting something taken care of that needs taking care of, add something to it." At this point the focus of the discussion had shifted again to task-oriented issues.

The next person to speak his views was 6. First he explained a particular task and why his shift has completed it in the manner in which they did. Then he expressed very clearly, in view of the preceding discussion, the communication outcome that he wanted:

"I feel, if I'm doing something wrong, production problem or whatever, I want to hear it. Not in a letter--face-to-face. That's all I'm asking. I'd expect that you'd want the same thing...That's all I'm asking for. If I'm doing something wrong, let me know. Say it to me face-to-face; don't say it in a letter, because...they get misinterpreted."

In expressing his request, he also disclosed how his co-worker had given him that sort of direct feedback. From this brief focus on interpersonal issues, the focus again shifted back to task issues. 8, 7, and 6 explained more about what they do and their rationales.

The articulation of issues had moved around the table to 1. He remarked that he might not be able to talk (given 7's comment). He, too, explained the actions of his shift, but his explanation prompted a key response from another member:
1: "...we was helping Receiving out. A lot of times they'll get (raw material) ahead and they ain't got no place to put it. And we had empty totes, taking up space, so we figured it'd be better to dump the iron in the totes, so Receiving would have more room. I guess it sounds like that's not the right thing to do after all. But that's the main reason behind dumping totes early, to help Receiving out."

6: "To tell you the honest truth, I didn't know that's why they were being dumped that way. I didn't know we were helping receiving out. I just thought maybe it was just being done, whatever."

6's response was a kind of disclosure to the group about how one group's actions without corresponding communication can be misinterpreted. In this example, the two foci (task and interpersonal issues) merged; the need for clear communication between team members was clarified by way of a task-oriented problem.

For the next several minutes the conversation turned more to various task activities and the reasons for doing them; 3, 1, and 4 participated in this discussion. I's feedback about his observation of a task left incomplete, raised a question to the team, and proposed a solution:

"I'd like to bring up the cooler screen; I think we oughta have a policy on that. I've seen it taken out on another shift and still be laying there two shifts later. And I've heard that some people think it oughta set for a while before you clean it. I don't have any problem if someone doesn't clean it during the shift if they tell me why (they) didn't have time to clean it. But it set there and I feel that it should have been cleaned. That bothers me."

"If someone tells me why they didn't clean it--is it my responsibility to ask somebody why you didn't do a job? or is it the person that didn't do it, their responsibility?" (bold added)

"...I guess communications--I'm not good at it--communications would be the best could solve a lot of these problems."

As I spoke, the focus of the meeting again shifted to interpersonal issues. His feedback addressed the behaviors and the policy behind them, rather than any individuals. He reiterated 6's issue: team members need to know why another person did something so they can understand the other's actions. His solution was, again, communicate. His question that pondered responsibility for follow-through, relates to the issue raised earlier in this chapter, concerning who takes the authority in the resolution of interpersonal conflict; this question was not addressed in the remainder of the meeting.

Team members (6, 5, 1, 2, and 4) moved back to a discussion of problems with specific tasks and what could be done to solve them. As they shared their reasons for performing tasks a certain way, they began to share ideas for solving these
task-oriented problems. Idea sharing was followed by sharing stories of working with people outside the department:

1: "They just sent out a memo to us...Some people think you tell one person and everybody else knows. (laughs)"

2: "Another thing we had some problems with...they would take a pallet full of bags out, and somebody down at the wrapper would poke a hole in it...so they'd bring it back and say, 'Hey re-skid it.' Whoa! It was good when it left here..."

6: "They've done that to us too...there was nothing wrong with that skid...that happened on the wrapper...that's where you get into needing these support groups. We definitely got to talk about that. We've got some problems with them."

At the end of this segment of the discussion, members had identified common problems outside the team.

The discussion had gone around the table. The facilitator, responding to the silence by asking if there were any more comments. 1 initiated further discussion by asking for solutions, and team members responded by articulating both solutions and problems.

1: "I guess my question is, how do you solve these? Do we just go ahead and try to come to a..." (pause) "...together on some of these things, or just do what we wanna do, like go ahead, if we feel like dumping ahead?"

6: "First thing is, like you said, if you're helping in Receiving, pass it on, let us know...Nobody has to explain why they do what they do all the time."

3: "...it got to the point when if we tried to communicate, we used to have the book—that's how Wally communicated the whole time he was back here was through the book—-and it gets kind of old passing things on if nobody wants to pay any attention to whatever, anyway. So why even worry about it...After a while, you pass on the word about what you can, when everybody's doing basically what they want anyhow, you get kind of tired of it after a while."

6: "I guess maybe things have just gotten a little out of hand. Maybe we've got to go back to the fundamentals. Like using that book..."

2: "It's been deciphered wrong as, there's been times we hay have made a suggestion in the book somebody took it as, 'Hell! Who are they to tell us what to do!'...we weren't telling anybody to do something. It was a suggestion that was made maybe by someone else...someone else higher up than us."
3: "You know, I agree with 7, production comes first...I can't take all production first because one of our responsibilities is ordering (raw material). It don't do any good worrying about everything else that happens that day and forget to order...that is one of the responsibilities that we have to do, that Wally was doing...We can't neglect that one. That's a must. There's other ones that we do that Wally was doing that we don't have to do every day, or we could catch up...There's times...that a truck comes in at Receiving and needs unloading, fine. But yet there's a pile up on the third floor. We're not always taking care of our primary responsibilities, as I see it...we're not always taking care of our primary responsibilities ahead of catering to somebody else....it's kind of nice to branch out and do some of those things. But not when you've got stuff up over your head...or stuff's left out on the floor...when these things are going on internally, I don't feel that it's right to be going out and doing something for somebody else."

1 initiated this discussion by refocusing the discussion on interpersonal issues and asking for solutions. Team members moved between both interpersonal and task-oriented issues as they articulated solutions, as well as more problems. 6 synthesized what he had been listening to: members should, within reason, share information with each other regarding the thinking behind their actions; and written communication should be used more frequently. 2 and 3 elaborated on the problems with written communication, that little attention has been paid to it, and that messages have been misinterpreted. 3 discussed the problem of setting priorities according to their primary responsibility of production. At this point, members freely articulated their issues.

When the facilitator asked for further comments, 6 restated the problem and solution as he saw it:

6: "...it sounds like we've got a major communication problem...it's between all three shifts. We're not passing something on, or we've misunderstood and didn't come back and say 'Is this what you meant?'...maybe we need to start communicating a little bit better, make sure everything is clear before a shift leaves..."

3: "Well, everybody communicates differently...sometimes I'm better off just putting something down. I'm not saying that's the ideal way though, I'm not saying that."

5: "..if I can interrupt, what you just said before this is the way this letter should have been. I mean that made more sense to me than the way this letter was wrote up, what you just said."

(Some talk between team members about piles left on the floor)

6: "I've heard 2 before say, 'I forgot to clean up around the (raw material machinery).' I said 'that's fine, don't worry about it.' Now at least he told me, and I didn't go upstairs and, 'My God!'"

Team members here demonstrated effective listening by paraphrasing and summarizing previous points that were made. 5 used 3's explanation of the contents of the letter to
illustrate how, for him, the face-to-face communication was more effective. 6 used another team member's example to restate his point about communicating operational information.

As team members continued to share task details, the facilitator informed them that only a few minutes remained to the meeting. He moved to set a time for the next meeting, praised team members for their comments, and indicated that the minutes would be used to isolate issues that they would address in the next meeting. He offered to share ideas for solutions. As he moved to close the meeting, 7 said, "I'd like to make one more comment."

7: "Something in the letter about the ones who are afraid to tell how it really is, that everything's OK. I don't sugar-coat anything when I talk to Wally. I do respect his position. But I do raise hell with Wally every once in a while, when I feel that he's in the wrong or something's wrong...I don't know of anybody on the off-shift (with a few exceptions) that don't give him hell once in a while...I don't think we're holding anything back when we speak with the management."

3: "I would like to comment to one thing 7 said... when I put that down on paper, I didn't name names because I don't know who all Wally's talked to...if someone feels guilty they can own that...where I was coming from with that is every since we've started these teams...this wasn't just for Plant A. I mean, this was a generalization...all these things coming back and everything is rosy. Everything with these teams is like, going super. That there's no problems...after a while I get kind of tired of everybody talking how super everything is...(praises the plant manager presenting both the positive and negative side of the teams)...it seemed like for so long we were hearing...the crap that everything's going so good..."

"...so I'm one of those kinds when I hear everybody blowing, that I'm gonna take the opposite stance and I'm not gonna be real even. I'm gonna tell you the rest of the story. I might take mine to the extremes. But sometimes I feel that it's a necessity to try and even out..."

Several points are interesting about this final exchange between team members. First, 7 found it necessary to clarify one more point regarding where he stood, even thought the facilitator was clearly drawing the meeting to a close. (In fact between the two team members' remarks, the facilitator made another move to wrap up the meeting.) 3 found it necessary to further clarify the intent behind the letter. In a sense this clarifying was an appropriate response to one of the messages of the meeting's feedback: tell me why you behaved as you did and I'll understand your actions. Then 3 took his comments even further by disclosing a core value to the group. By
"showing his hand" to the entire group, he demonstrated the degree of openness to which the meeting had progressed.

Reflections on the team meeting. Generally, team members used techniques of effective communication and listening. They were direct and specific. They generally addressed behaviors or events rather than personalities. Some summarized and paraphrased others' remarks. On occasion, some remarks bordered on the more personal, but most often, members channelled their long-standing frustrations into issues. The extent of task issues that were raised as meaningful problems was further evidence of the core value of commitment to production. It may be that this core value helped team members to give effective feedback, directing their comments away from personalities. Team members did not use banter as a feedback mechanism in this meeting.

One observation of the content of the meeting was the continuous dance between task issues and interpersonal issues. By virtue of their core values, members may have been more at ease discussing task issues. However the root of their problem, as they identified it, was an interpersonal one. The ability to move between the comfortable territory of the task issues, and the unfamiliar territory of the interpersonal issues may have helped the group address unpleasant interpersonal issues more readily than if they had gone into the meeting with the goal of resolving interpersonal differences. In this example, task issues were a common ground through which team members approached their differences.

Team members were generally open with each other. The number of personal disclosures indicates the extent of openness. In addition, openness was evidenced by members expressing in the meeting, many of the things that they had discussed in their interviews. In the interviews, large majority of the team indicated that it was important for a person to voice his opinion. Observations in the plant supported this claim. Team members appeared to have no reluctance to say what was on their minds, and to take a stand for that which they believed was right. Members also indicated that an important part of having a say is being listened to. Members shared experiences of having been listened to, and of being told to "shut up". These issues were very clearly enacted in the team meeting. Statements about "having a right to your opinion" and references to communicating without being heard are two examples of this. In view of members' reactions to the letter, and also their comments in the interviews, it is also important that no one takes away someone's voice by speaking for him. Thus, team
members' communicative actions in the team meeting match much of what they expressed about having a right to speak one's mind; perhaps a third core value, that of having voice, drives team actions as well.

The key problems articulated by the team members were generally the coordination of efforts toward a common goal, and communication. The common goal issue encompassed the setting of priorities within the team; it spilled over into communication issues when members asked for more information in order to do their jobs. The communication issue encompassed the requests for face-to-face, direct communication about problems, the need to know the intent behind the actions in order to better understand them, and the need to listen.

Some communicative actions were noted as generative; that is, certain points in the conversations preceded a shift in the nature of the discourse. The examples noted were:

- a lead-off comment that allowed respondents to move in many directions
- a request for feedback that generated several responses and discussions
- shared gesture of openness between two team members
- a disclosure that preceded two members finding common ground
- disclosures that preceded clarifications of intent behind actions
- summaries of key points—problems and solutions
- a subsequent disclosure of one member's core value
- the moves that shifted the discussion between task and interpersonal issues

In sum, the team meeting appeared to be somewhat of a break-through event for the team because it enabled team members to articulate problems and to confront issues face-to-face. Some people were able to see issues from a different perspective, owing to the additional information made available by their fellow team members' explanations and disclosures. By practicing direct and open communication, the team moved toward not only articulating the problems, but also toward proposing their solutions.

Summary of Findings: Plant A

Implementing the team concept in Plant A was done by converting an existing work group to a team. To gain understanding of the context in which this took place, the history of the group was explored. The opening of a plant that was distinguished by completely new processes and product marked the beginning of the Plant A team.
A small, select group of people had, for eight years, succeeded in running the new operation efficiently and effectively with minimal supervision. During that time, team members in carried out the production responsibilities of an operator, and some of the production-oriented responsibilities of a supervisor. Underlying team member actions were the shared values of a strong commitment to the work of production and a strong sense of fairness. These core values were interwoven into a belief system that suggested that the work of producing good product comes before all else, that anything other than the work of production is a lesser form of work, and that exchanges between parties to the work should be fair. Members defined themselves as a team not only because they worked together in sync towards the goals of the operation, but also because they did so with little to no supervision. When the group was made a team, their new responsibilities prompted both an enthusiasm for the opportunity to be more broadly involved in the operation, and an apprehension about how those responsibilities would be balanced in terms of time and priorities.

The naming of the team was said by some to be a pivotal event in the character of the team. The transformation of the group into a team brought about broader and deeper responsibilities for team members; at the same time, it impinged on the team's core values. The value of commitment to production was challenged by new responsibilities that changed the nature of work; this was expressed as team members shared concerns over members not being able to pay as much attention to the operation. The value of fairness was called forth as people expressed concern over being compensated fairly for these new responsibilities, and reacted to not being given the choice to be a member of a high performance work team. Naming the team not only spoke to the team's value system, but also called up past histories that had shaped member perceptions over the years. The event of becoming a high performance work team changed life as the team members knew it; that change was felt as a tension—internal, between members, between shifts, and between the team and management—and was a pervasive theme throughout the observation period.

To team members, the real team was the shift group; the designated team did not feel like a team. Tensions between persons and across shifts were perceived differently by the team members, but most recognized that there was some interpersonal tension. To address the tension, members suggested a variety of approaches, from making it the responsibility of someone with authority (the facilitator), to looking to an internal leader, to viewing it as an individual issue, to
improving communication. One widely recognized approach was to communicate with one another face-to-face. While members acknowledged that this could be done through team meetings, they could also cite many reasons for not to doing so.

Without a team meeting as a forum for communication, the communication among the Plant A team members was limited to shift change, written communication, and bantering as ways of passing information across the shifts. Shift change communication took place in a short time frame between two shifts; the substance of the communication was generally information about the operation. Written communication included notes and log book entries and was also predominantly production oriented; the former supervisor had established a strong precedent for written communication between team members. Members differed in their views as to the effectiveness of both the shift change and written communication. Bantering was used as a feedback mechanism at the shift change and in written communication; remarks made in a teasing manner relayed information about performance and behaviors.

In view of the communication patterns of the team, the team meeting in early May was considered to be a significant event. As they faced each other as a whole unit for the first time in months, members addressed their differences effectively, speaking from their core values directly about the issues of their concern. The communication was open and was enhanced by members' moves to affirm, disclose, summarize and provide spaces for each other to speak.
CHAPTER VI
CONCLUSIONS

Overview of the Inquiry

This study explored the communication of self-directed work teams from inside the teams. It examined connections between team members' interactions and communicative actions, their actions as a team, and the outcomes they achieve as individuals and as a group. Of primary interest in this study were the face-to-face encounters of work team members as they enacted life on their team. Specifically, interactions on the job, informal conversations between team members, the discourse of team meetings, and team members characterizations of team experiences provided data for this study. Within these events, particular attention was given to the how work team members talked with and about each other and their team, what core values were espoused and acted on, and how their patterns of communicative and collective action related to the achievement of their desired outcomes.

The study was informed by the literature on self-directed teams, which is primarily influenced by sociotechnical systems theory. Because much research on teams indicates that communication plays an important role in work team effectiveness, the literature on small group communication was also drawn into the study. Experiential data from pre-studies in other team settings supplemented this background material. The learnings from these background sources prompted a set of "guiding hypotheses" (Marshall & Rossman, 1989) which suggested that patterns of discourse could be observed that enable personal and collective action, and that when people enable each other through dialogue, they make available more information, more resources, more energy, and more choices, improving the chances of achieving desired outcomes; in a sense, their dialogue expands their space in which to act. Thus, the initial framework for research was formed.

Because the research questions were aimed at understanding values, realities, and meanings at work in these particular teams, a methodology was needed that could approach the research problem from the inside (Marshall & Rossman, 1989). The
researcher chose to use an interpretivist methodology. The design of the study was strongly influenced by both naturalistic (Lincoln & Guba, 1985) and co-operative inquiry (Reason, 1988) approaches. The goal of the research was to understand the whole, through dialogue as well as through observation. Understanding of meanings in their particular context was approached through immersion in the setting, and also through dialogue. While researcher-participant dialogue played an significant role, it was not the entire focus of the study; observation of the everyday experiences of team members in talk and action also contributed to the findings. The co-operative inquiry aspect of the research offered dialogue and collaboration as a way to facilitate change and action if the participants wished to do so; the naturalistic aspect of the research sought to understand the experiences, meanings, and realities of the participants in their context. Thus, while the research was open to co-creating knowledge in and for action, and articulated that in interaction with the participants, the research was not designed solely as an action inquiry.

The principles and assumptions of co-operative inquiry guided the conduct of the inquiry. The essence of the co-operative inquiry approach is dialogue that is collaborative, authentic, and egalitarian; inquiry is conducted in a spirit of mutuality, caring and community. Co-operative inquiry holds the underlying assumption that people have the capacity to reflect upon, critique, and choose actions that positively shape their world, and can learn to do so through a collaborative relationship with others. In co-operative inquiry participants in the research are not "subjects" but co-learners, co-researchers and co-creators of knowledge. This study held open the possibility to co-create knowledge with the participants at every opportunity. From the beginning, the team members were invited to become co-researchers in dialogue and in shaping the findings. When conversations turned to dialogue for change, the view was that a form of action inquiry was taking place. Thus the research prompted multiple learnings; both participant and researcher were both contributing to each others' understanding while creating new mutual understanding in action.

The study took place within two work teams in a manufacturing organization that has recently implemented self-directed work teams. The differences between the two teams manifested themselves in two distinctly different case studies. While many things about the contexts of the two teams were similar—organizational setting, managerial commitment, training, responsibility structure—each team was very different in terms of the historical and personal factors that contributed to its context.
The first concern of the inquiry was for the researcher to be true to the uniqueness of each team, to faithfully capture the essence and the details of each (Patton, 1990). In doing so, the findings for each team are divergent and portray the teams as the members portrayed them. Because the two teams differ so greatly, any convergence by the two teams on a theme was considered meaningful. In this chapter the findings from the two teams are examined together in terms of the research questions.

The study makes a contribution not only by its development of knowledge with the participants, but also because it speaks from the insider's view of work teams, and because it connects together concepts that have not been addressed together in previous studies of self-directed work teams.

Summarizing the findings through the research questions

In the previous two chapters the findings were grouped into patterns that emerged from the data, and summarized to highlight the important themes. This section will specifically consider how the findings of the study addressed the research questions. In qualitative inquiry the research questions that guided the initial inquiry, may be reframed or refocused by the participants in the study; consequently, some of the original research questions may not be fully addressed here, and other more meaningful questions and themes may take their place.

What patterns of discourse accompany the actions of the teams?

a. How do people talk about the teams, the organization, their values, their tasks, their actions, the experience of being a team member, their desired outcomes?

b. How do people talk to each other in action (on task)? How does this talk portray relationships, values, priorities, the group experience, desired outcomes?

c. What common language, metaphors, or stories are used by team members in their talk?

The discourse of the team members was portrayed in extensive examples, quotes, and anecdotes throughout the Chapters Four and Five; the reader is referred to those chapters for an understanding of the essence of the discourse as team members expressed through talk and action what it is to be a team, how team members work together, and what they value.

An important finding in regard to the discourse of the teams was the idea that team members use bantering as a common language to enliven the work place, and to
express feelings and thoughts to each other. Joking, teasing, and poking fun at each other, is used as a way to express affection, as a form a play, and as a gentle way to provide feedback to each other. Team members explained that because none of them were each other's "boss", it was often difficult to tell someone directly about a problem. Bantering offers a way to provide the feedback without creating the perception that the giver is trying to act as a supervisor over the receiver.

Although "throwing a barb" to give feedback violates some of the rules for giving feedback effectively, (for example, it is less direct, and is sometimes personal), it is a commonly understood way of giving and receiving information about performance and behaviors. Banter can be a meaningful and effective as feedback, if all parties to the banter have an understanding of the context of the feedback event and the relationship within which it took place. Banter appears to be a first choice among feedback mechanisms. Members report that it often gets results; if the behavior in question is not altered, they resort to a more direct approach. However situations were observed in which banter was not used. Team members of Plant A used very little bantering in their team meeting; instead they chose to use very direct and specific feedback.

To what extent are feedback, listening, and self-disclosure evident in discourse?

a. What other actions occur in conjunction with feedback, listening, and self-disclosure events?

b. What actions precede and follow feedback, listening, and self-disclosure events?

c. What changes in information, available resources, and group energy can be observed in relation to feedback, listening, and self-disclosure events?

The notion that banter is a form of feedback was discussed as a part of the previous section. The use of feedback, listening and self-disclosure was illustrated and elaborated on in Chapters Four and Five. In general, teams were observed to give each other direct and specific feedback to each other, particularly when it came to giving feedback about task-oriented behaviors. Few incidents of personal disclosures were observed, so findings about disclosure were limited to those articulated in Chapter Five. Those findings noted that disclosures in the team meeting preceded
members finding common ground, clarifications of issues and a deeper disclosure; the number of disclosures indicated the degree of openness of the meeting.

Communicative actions such as feedback, listening, and disclosure are all part of the broader issue of exchanging information. Information flow was said to be critical to the success of teams; findings from this study substantiated that claim. The presence or absence of important information played a large part in the talk and action of both teams over the course of the inquiry. When team members did not have the information they felt or thought they needed, they took the initiative to get it. Team members interpreted exclusion from the flow of information as a threat to their autonomy and an absence of mutual respect. Inclusion in information flow walks the talk of teams; it conveys respect for the team members' abilities to use the information, demonstrates commitment to team members' roles as autonomous decision makers, and communicates that the team is self-managed, rather than other-managed.

The message of the teams' request for information can be summarized as tell me what, tell me why, and tell me how. Members suggested that it is better to give team members the information than to withhold it, even if it is incomplete or subject to change, even if it might not be fully understood at the time. Team members also expressed that if they know the rationale behind information they will better understand the broader decisions that are being made, and behaviors of others. Finally, team members called for information in the form of training that would help them perform their roles more effectively.

**What core values guide actions?**

a. What values are central in the organization?

b. What values do team members espouse?

c. What do actions convey about the core values of the teams?

d. To what extent are the specific values of authenticity, safety, mutuality, community, and choice present in action?

e. What tensions are present between values, and between values and actions? How are tensions resolved?

The core values of the teams that emerged from their conversations with the researcher, their conversations with each other, and their actions were discussed extensively in the previous two chapters. As explained in Chapter Three, these core values were derived from an interpretive analysis of transcripts, field notes, and documents (Denzin, 1989; Strauss, 1987) that surfaced the values themes of the
participants. Shared values were indicated when those themes were observed in talk and action across team members over the course of the observation period.

It was suggested that the Plant A team shared the values of a strong commitment to the work of production (including the importance of producing good product, and the belief that real work is the work of production), and a need for fairness. It was also suggested that the Plant B team shared the values of interdependence, mutuality (including fairness, equality and respect), hard work, and choice (including autonomy, discretion and responsibility). In depth examples of these were given in the preceding chapters. These core values were demonstrated to be interwoven into team actions. For example, it was demonstrated how the Plant B team's desire to access the flow of information was an enactment of the autonomy value; they acted not only to assert their autonomy but used it to get what they needed. In Chapter Five, it was suggested that the Plant A team's core values prompted their strong response to being named a high performance work team, and may have been instrumental in the team's ability to give feedback effectively, and may have enabled team members to move more quickly to addressing their interpersonal differences.

Although the organization's values were not emphasized in the findings chapters, team members did make passing remarks about what receives attention in the company and what does not. The most dominant theme in regard to the organization was the importance of being able to live with ambiguity. Team B members signed on to a team concept which was deliberately left unbounded so as not to limit its potential. Members of team B noted that frequent changes in plans were a way of life; some members of team A commented on lengthy deliberation in corporate decision making. During my observations in team meetings, the plant superintendent stressed flexibility and regularly told the team about decisions and purchases put "on hold" to control expenses. As these examples illustrate, living with uncertainty is a way of life at Omsco. Other characterizations of the company and its management differed by team and were not as strongly supported across observations.

The core values cluster was present in a limited sense, as examples of these values could be found in individuals' words and in selected team actions. However, other team values were equally or more important. Members of both teams talked about the importance of choice; the issue was particularly meaningful to the Plant A team who had been given little choice but to be on a team. Members espoused mutuality when they talked about wanting respect, wanting to feel worthy, wanting
fair play. When mutuality was not present, whether it was in relation to their fellow
team members or to management, people responded strongly. Authenticity and safety
were not explicitly expressed as core values. However, I was struck by how early in
the interview period team members were willing to disclose personal stories and
motivations to a stranger. In addition team members repeatedly said that they had a
right to voice their opinion; apparently they had experienced no repercussions within
the company for doing so. Although the use of disclosure and the willingness to voice
opinions indicated that these values were meaningful, in this setting it seemed that
authenticity and safety were taken for granted. The value of community includes many
of these values and may be better used as an overarching construct for the other four
values in the cluster. There were times when the teams were observed to act as
communities and times when they did not. When I proposed the core values cluster I
noted that the distinction between them in the literature was not clear (Gellermann,
1985; Gudykunst, 1991; Harmon, 1981; Heron, 1989). This research has
demonstrated that many of these values overlap and interrelate. As a result, I
questioned the usefulness of my original idea in this setting. The idea of a cluster of
values still seems useful as a framework for researching teams. However, the
particular values in the cluster are unclear at this point; they can be clarified through
future research.

How do team members go about taking action together?

a. How do team members make decisions about task accomplishment?

b. How do members choose the appropriate behaviors and techniques from
   their repertoire? How extensive is their repertoire?

c. How do members recognize and use each other’s expertise?

d. How do members characterize the level of trust in the group and in the
   organization?

e. To what extent do members help each other learn?

f. How do members decide when to assume a leadership role in the team
   and when to be a participant? How do members maintain balance
   between these roles?

g. To what extent does the group reflect together on its actions and
   outcomes, challenge its decisions and actions, and revisit its core
   values in relation to decisions, actions, and outcomes?

h. How do members describe the experience of acting collectively?
Team members describe the experience of action collectively with the phrase, "working together." The phrase often implied that an interdependence and synergy was achieved when the team was performing at its best. "Working together" included sharing decision making, relying on and learning from each other's expertise, trusting each other, and leading from one's expertise.

Decision making was observed more extensively among the Plant B team members, and was discussed in Chapter Four. The team's typical decision making process is to raise an issue, collect input, discuss the options, and make the decision. Shared decision making is highly valued. Overall the team has a strong belief that whenever possible decisions should be made by consulting with other team members; members responded negatively to those who would make independent decisions about issues of importance to the entire team. In their interviews, team A members characterized decision making as a matter of the men on the shift pooling their ideas and then coming to a decision. Only one story of joint decision making was shared—that of the team dividing up the former supervisor's responsibilities; however, because the group did not meet as a team for most of the research period, team decision making was not observed.

Team members in both plants were quick to recognize the special talents of their teammates. In Plant B, people with special knowledge or experience in one area were relied upon to train those without that knowledge or expertise. Resident experts were often responsible for developing procedures in their areas of expertise; they then used team meetings as mini training sessions for the rest of the team. Members of team B were also observed to help each other spontaneously on the job. Members of team A also relied on each other's gifts. They spoke of how members' expertise was called upon to solve problems, and how people helped each other to learn some of the new administrative responsibilities of the team.

Talk of trust was most extensive within the team for whom mistrust was a larger issue. Some Plant A team members talked extensively about mistrust of upper management. Mistrust was generally linked to collections of stories about inconsistencies in the carrying out of company policies, and personal experiences with being deceived or treated unfairly. A few members of the Plant B team had their own stories of mistrust, but the stories did not dominate their talk as was the case among some Plant A team members. Generally, team members trusted each other to keep their commitment to make good product. Although instances were noted where
members disagreed on issues, or questioned another person's ability or decisions, their trust in each other to do the job was unwavering.

The extent to which team members took on leadership roles in the group, and yielded to the leadership of others was observed much more extensively in Plant B than in Plant A. Again the fact that the whole Plant A team did not convene for most of the observation period limited findings about leadership of the team as a whole. Leadership was observed to emerge in many ways in Plant B. Team members took the leadership role when their expertise was called upon; they formally led the group through new procedures and informally became teachers in action. In team meetings, I observed that certain people were recognized as leaders in the group. One person had the ability to summarize and translate issues so that they were understood; another had the gift of gatekeeping and would often smooth interpersonal tensions in the group. One team member occasionally took it upon himself to steward the group process during a meeting, ensuring that all voices were heard and that issues of fairness were addressed. The leadership seemed to be taken by people with the talents to serve the team's needs at the moment, and this leadership was recognized by others. While there was emergent leadership from the group, no single leader emerged but rather a group full of leaders.

From discussions with team members, it was clear that some have questions about the taking of leadership when it comes to addressing interpersonal differences. Team members still have some question about how traditional leadership roles (the role of the "boss") manifest themselves in self-managed teams. Team members share a belief that they should not direct each other, but are not always clear on how to ensure that everyone performs as expected. The team members' perspectives on the MMI role in Chapter Four, the question of authority-taking raised in Chapter Five, and the use of banter as feedback among both teams reflected this concern. The implication of these findings for the team are discussed later in this chapter.

Team members did not always take action together as an entire team or with the desired outcomes of the team in mind. In Chapter Five, it was noted that members of one shift in Plant A had composed two letters expressing their views regarding problems with the team concept; one letter was sent throughout the company via the communications department, and the other was written to the facilitator in response to the plant manager's request for feedback about the team. Members of this "rebel" shift had a history of acting collectively to point our injustices in the system, and had
recently taken up a personal crusade to fight for fairness in their new compensation package. In doing so, they had taken a number of actions, including meeting with the plant manager and with the company president, to "make people stop and take notice" of the issue. The collective action that generated these letters and the various activities involved on-going dialogue and joint decision making; in the action one of the three emerged as a leader who would synthesize group discussion and act as the groups' voice by composing the letter for the others to sign. These three team members had a collective identity as "agitators"; the informal leader of the group preferred to be called "conniving" rather than "creative." Researcher dialogue with these team members indicated that these actions were strong because they addressed core values issues.

On the surface their actions were called disruptive to the team and a source of tension; an alternative view of their actions is to see them as a creative resource for the team. The stories that these shift members told about their activities indicated their ability to put a tremendous amount of energy and creativity into a problem. Even though their particular activities were not directed toward the team effort, the quality of their actions exhibited a number of exemplary behaviors for self-directed work team members: they were creative, resourceful, and synergistic; they engaged in dialogue and shared decision making, initiated action, and persisted in their actions. Through the tenacity of its actions driven by strong core values, the group demonstrated how it could be a resource for team.

**How effectively do the teams achieve what they set out to do?**

- How do members and non-members describe the desired outcomes of the team?
- How do members describe their personally desired outcomes as team members?
- To what extent are their tensions between the desired outcomes of persons and the team? How are these tensions resolved?
- If teams have created synergy, how do members characterize it?
- How do members characterize team effectiveness?

Without exception, team members characterized team effectiveness overall as producing good product. Team members were learning to judge their effectiveness in a new way—in terms of financial data. The new incentive compensation measured performance against a set of budgetary figures in the areas of production, safety, and
housekeeping. As the research concluded, members were just learning to make sense of this information.

The model of work team effectiveness implicit in the talk of the Plant B team (see Table 4.1), was partly corroborated by members of team A in their talk about the way their shifts functioned as effective teams. For example, "good workers who care about the process," the ability to work together, and diversity of skills were articulated as important conditions for team effectiveness; communication and compensation were suggested as strategies. Team A generally had less to say about the scope of outcomes of effective teams, however members did suggest self-satisfaction and synergy as two that they had experienced. Stories of synergy on both teams indicated that team members had experienced feelings of being "in the flow" when the group was at its best.

In Plant B, there appeared to be little tension between the desired outcomes of team members and those of the team as a whole. Generally, they seemed to hold a belief that by achieving team goals they would simultaneously attain their personal goals. Of course, there were individuals who wanted to get there faster or slower than, or in a different way than, others, but I sensed that team members were acting with the same purpose.

Some of the tensions in Plant A that were articulated in Chapter Five concerned apparently different desired outcomes between team members, and between members and the team as a whole. The different constructions about what the responsibilities of the team should be reflected different desired work outcomes for team members; (recall the one member who "never wanted to" be a supervisor, and another who said that "some guys...wanna play supervisor"). The concern that the company might profit from the team concept, while team members might not be fairly compensated reflected a tension between personal and organizational outcomes. The tensions between desired outcomes prompted an analysis of the data that uncovered a diversity of understandings of what it was to be a team.

Plant A's sense of team-ness was stronger on the shift than on the team as a whole. In addition, their definition of what it was to be a team had more to do with not being supervised than it did with being self-managing. Some members did not consider the work of management to be real work, therefore, the managerial responsibilities of a self-directed team were seen as secondary to the production responsibilities of the team. Some members believed that the team still needed an
authority figure to resolve interpersonal differences. Given their belief about being a team, and where they felt team-ness, the team that was enacted by the Plant A team members differed from the teams that are portrayed in the literature. This contrast illustrated a gap between theory and practice—management can call a group a team and follow the recipes for creating teams, but if the team itself has a different construction of what it is to be a team, then the imposed structures have little meaning. What the literature lacks is the importance of addressing the realities of the team itself. Some implications for this learning are discussed later in this chapter.

Implications for Future Study

The obvious implication for future research is to extend the present study by continuing the inquiry. Since the formal data collection period ended, I have continued to keep current with the teams' experiences by attending their team meetings. One reason for doing this was so that I would be able to act on the suggestion of the team member who said, "come back in six months and you'll see a completely different team." It is apparent to me that the team members on both teams would welcome further observation. The opportunity to continue to observe the teams in action for another extended time period, would enrich the findings by confirming and disconfirming patterns discovered in this research. In addition it would open up the study to address issues that may be specific to stages of team development, and to see how these particular teams negotiate those stages. By extending the research this way the benefits of observation across time could be gained.

By returning to the site for additional research, the present study could be extended in another way. One original objective of this research was to take an action approach to the teams; this happened on only a limited basis, owing to the short duration of the observation period. The findings have contributed and will continue to contribute to action in the group as they are fed back and discussed within the team. The findings may be used as a foundation for future training. In returning to the setting, I see the potential to use the present research as a generative source for creating new learnings in action with the work teams. For example, one implication of the findings of this research is that learning to hold each other accountable is unexplored territory for team members. An appropriate way to explore this territory is through dialogue. By joining with the team members in an inquiry into their accountability
issues, we may come to understand in new ways how issues of direction and control are understood and acted on in the teams.

If any one finding in this research calls me to further inquiry, it is the notion of banter as feedback. That banter can be a form of feedback is an idea that has been thought-provoking for both the researcher and the team members. Further inquiry into this idea with the team members is intriguing to me for three reasons. First, the practice of giving behaviorally specific, objective feedback has always struck me as sterile and impersonal; banter on the other hand is feeling-based and personal. If it is possible to come to common understanding from a feeling dimension as well as a thinking dimension, then perhaps expanded conceptualizations of effective feedback are possible. Secondly, I enjoy entertaining the contrariness of the concept. As I noted earlier bantering breaks some rules for effective feedback; but in some instances it is highly effective. This generative tension could produce deeper understanding of effective communication. Third, to understand bantering as a language of the team members is a way to understand the people themselves. Perhaps my sensitivity to it, and my rapport with the team members, reflects my inherent understanding of the language from having grown up in the midst of people like the team members. Bantering is more than telling jokes; it reflects a value system, a mindset and a lifestyle of the group who uses it. To understand banter is to gain empathic understanding of the team.

Another direction this research could take in the future would be to contrast team member talk with management talk. There was fascinating discourse observed throughout the research between Plant B team members and members of management. Because this research focused on the talk and action of people on the team, the findings did not include some of the dynamics that went on between management figures and the team members. The study could be beneficially extended by analyzing data from these exchanges. In particular, the talk and action of the plant superintendent reflected his years in a traditional hierarchical structure, even though he espoused the team concept. For example, he was observed to give ineffective feedback, violate the mutuality value apparent among team members, and use "I" rather than "we" language. In view of the findings of the present study, these behaviors raise questions about the impact of his talk and actions on the present and future actions of the team. A second management figure who interacted with the team was the facilitator. His role as teacher, as leader, and as model could be explored to
add another dimension to the understanding of team actions. In addition, his talk and action could be treated as a separate case study. These findings will likely be extended in this way not only because they will provide a more complete picture of the team experience to Omsco management, but also because of the researcher's ethical obligation, to the teams and to the company, to share discoveries of possible barriers to team success.

Lincoln & Guba (1985) pointed out that in qualitative research "conclusions" are not so much the end of a study but more the beginning of something new; researchers generate "working hypotheses" that build on the findings at hand and point the direction for further study. This research has redirected my initial notion of a core values cluster. The muddiness of the original idea has prompted me to consider teams in terms of the broader value of community. It seems that a useful way of organizing these values is to follow Peck's (1987) notion of community as an overarching construct for the other four values in the cluster. Building on Peck's work and the observation guidelines in Appendix A, studies of teams as communities could be developed, so as to provide a reconceptualization of the team concept.

Reflections of a Qualitative Researcher

Conducting this inquiry generated many methodological learnings for me. I recorded my discoveries along the way in my journal; they are reported here as questions, thoughts, and learnings about the doing the research and about being a researcher.

Reflections on the intent to use an action approach. The original plan of the study proposed somewhat of an action orientation through the use of co-operative inquiry. Co-operative inquiry involves the participants in generating knowledge for action and ultimately generates some action in the setting. This research, while it used dialogue with the participants to generate learning, produced action in very small pieces. For example, in the course of conversations with the participants, the researcher would ask thought-provoking questions, or pursue a course of inquiry with a participant to address an issue of concern, so there were momentary opportunities for action in the form of change of thought process. In addition, the member check document invited the participants to co-create the findings with the researcher; one team member's analysis and interpretation of the findings generated learning for both of us. That there were not large-scale actions generated by the research could be
attributable to the limited amount of time spent in the setting. For large-scale action to take place using co-operative inquiry, the researcher would likely have to engage the participants for a longer period of time than three months. Since the researcher continues to have access to the site, continues to attend the meetings, and continues to provide feedback to the participants, there is greater potential for larger scale action in the future.

**Learnings from studying multiple cases.** The experience of simultaneously analyzing interview data from two very different cases generated learnings about data analysis and the researcher as instrument. Both the Plant B and Plant A interviews were conducted using the same interview protocol; however, the responses to the protocol were divergent. This became very apparent when doing data analysis. The data categories that emerged from the Plant B interviews clustered very easily around the interview guide, and themes that did not fit were addressed as emergent issues. Data categories generated from the Plant A interviews did not fit as neatly into the interview guide structure; I had a sense that the data for the Plant A team was challenging the meaningfulness of the research questions. There was so much emergent data in Plant A that it overshadowed much of the sensitizing framework. In analyzing the Plant A interviews, it felt as though the data was pushing against the interview framework and crying to be heard. These contrasts prompted me to question my research questions and interview protocol, my interviewing technique, and my analytical approach.

The learning from my inquiry into dealing with the two different data sets is twofold. First, researchers need to be sensitive to emergent data; those data sometimes emerge in forceful ways, and other times emerge more subtly. Plant A's indigenous concepts screamed at me so loudly, that I wondered if I had been listening carefully enough for those in the Plant B interviews. Having analyzed the Plant B interviews first, the disarray of the Plant A data felt like chaos; that chaos was a reminder to me that qualitative data analysis calls for enormous sensitivity and flexibility on the part of the researcher.

Secondly, conducting two cases within the same inquiry helped me to reflect on the credibility of the human instrument. Having interviewed two teams, plus having the tape recordings of the interviews, I could better assess execution of the interview protocol, and determine if it had served the objectives of the research. For instance, the Plant B interview data fit so neatly into the researcher's framework, that
if it were the only case, I would have questioned whether or not I had steered the interviews to make responses fit into my framework. The Plant A data analyzed alone would have raised the questions, Did I even ask the questions I wanted to ask? Did the respondents move the conversation off track? However, by conducting two case studies with the same protocols, intuitively knowing that I conducted the two interviews similarly, and having the tapes to verify that the conduct of the inquiry across the cases was similar, I was able to view the protocol as a neutral ground. The emergent data then could be supported by the fact that, against this neutral ground, two totally different ways of responding emerged. This was a kind of multiple triangulation of sources that validated my protocol, the human instrument, and the meaningfulness of the emergent data.

On building rapport. Developing rapport with the participants is critical to the conduct and the outcome of qualitative research. Throughout the course of this research I was very mindful of my rapport with the participants; I acted with intent to build rapport, reflected on that action, and debriefed the issue frequently with the coresearcher. Some of my reflections on creating rapport are included in the following paragraphs.

I kept a running list of events and interactions that concerned my rapport with the participants. The items included both confirming and disconfirming evidence of rapport. Journaling rapport events not only served to monitor the progress of rapport-building, but it also became a part of the audit trail. Some excerpts from the journal are presented here as examples:

1/13, 1/20 ... surprised at how much was shared with researcher in these first two meetings.
1/20 Facilitator says how he looks forward to researcher coming each week
1/20 ... first 'teasing' by the team--team member says he thinks the visitors should take the minutes.
2/2 The team meeting was held on 2/1 and no one called to tell me.
2/4 Facilitator seems distant; ... Is he preoccupied? Have I done something inappropriate?
2/17 Facilitator shares his originals of his presentation to Plant A and his notes from conversations with each member of that team; he says they are confidential; he says he doesn't mind if I make copies.
2/24 Team member asked "where have you been"? when we went back at 2nd shift.
2/24 Attend the QA meeting with team member and he says, "Do you mind if I bring some friends ...?" (italics added)
3/31 First time I am put to work, (sweeping floors).
4/7 Team member called me at home to make sure I knew that they had received their compensation package, and wondered if I was coming in.

One of the items in this list of excerpts makes reference to the first time I was put to work. As discussed earlier, I had been somewhat concerned that, although I had intended to work in the plant, those plans did not materialize. Even though my not being given a task appeared to be a practical consideration, I contemplated whether or not this issue was a reflection of the level of rapport. Perhaps I was not trustworthy enough, or perhaps team members wished to maintain my identity as an outside observer. Yet at the same time, I received cues about working. One team member pretended to hand me a shovel, but when I reached for it he pulled it away. Another person asked if I was trained and ready to help. When I was finally given a sweeping job, I wondered if it was a sign of rapport, or just sheer practicality. Working in the plant was intended to be a rapport building activity; instead rapport was built in other ways. However, the mixed messages in talk and action provided an interesting puzzle.

Another item was logged in the journal as "first teasing by the team". Given the apparent importance of teasing and joking within the teams, it occurred to me that I could use the teams' standards as a test of rapport; that is, if team members included me in the bantering, I would have evidence that rapport had developed. (Not to mention the additional benefit of empathically learning about the emerging notion of banter as feedback!) In a short period of time, the team members joked with me enough to prompt feelings of being welcome and accepted. However, I also noticed that rapport improved the longer I was around; for example, a review of a later observation transcript was full of bantering between the team and me from beginning to end. By the end of the research period, I felt full acceptance because I had demonstrated that I could "dish it out as well as I could take it". I received strong affirmation because of one of my remarks:

Team member: "Squirt here told me that they brought it past, and she told 'em that I wasn't interested in it. I figure (other team member) put her up to that." (laughing)
D: "I did that on my own!"
Team member: "Oh did you?! (pleased) Well, your as big an agitator as (other team member)!" (laughing)

To be labelled as an "agitator" by a member of the "rebel" shift, was the ultimate indication of acceptance!
Thoughts for writers of qualitative dissertations. I thoroughly enjoyed conducting research in the field, and it produced many learnings for me. I also experienced some learnings as I worked with the data and wrote my final drafts.

Doing two things at once. As I analyzed my data, I not only logged learnings about the findings, but I also logged learnings about the methodology. That is, as I did my data analysis and as I wrote my findings, I also made note of the data analysis process and its effectiveness. I simultaneously did data analysis and thought about doing data analysis. This reflective approach to data analysis, and recording the reflections it as I went along, helped me in the end to write not only about the findings, but also about the data analysis process as well. By doing this the researcher can reflectively construct the methodology chapter and the findings chapter simultaneously.

Let the dissertation write itself. I found that when I yielded to the data, the data was very helpful in organizing the work. Instead of being concerned about the final structure and order of the dissertation, I learned (slowly) to let it write itself, by my taking on the data as a partner rather than as an opponent. Like the categories and the findings, the final dissertation emerged from the data, much to my surprise and delight!

Yin and Yang of data analysis. I learned to maintain harmony between my original ideas and the direction of the data. I attempted to simultaneously hold my framework and allow the indigenous categories to emerge; however, sometimes I felt a tension as though there was be a struggle between the data analyst and the data itself. It seemed that the data wanted to pull the work in a different direction; or was it that the work wanted to pull the data in a different direction? I interpreted the feeling of tension as a signal that I was not keeping the two in balance.

The data sends signals to indicate that the categories are meaningful. It also sends signals to indicate that the research framework needs to flex. For example, in trying to impose the sensitizing framework, it may become very difficult to find things that "fit"; this may be a signal to cast aside the framework. In data analysis, the researcher may become preoccupied with a particular theme, and find it difficult to stop entertaining an idea; this may be a signal to expand the framework. If the data groups seem to align themselves perfectly with the framework, it may be a signal to look for disconfirming evidence, or it may be a signal to take off the blinders!
Implications for Omsco Teams

This inquiry has several important practical implications for teams at Omsco. Key themes raised in this research that can inform the practices of the teams and Omsco management are discussed in this section. Two issues are offered for the consideration of the teams themselves. The first, by addressing team members' views of direction and control in their teams, suggests that team members inquire into their assumptions about accountability among team members. The second argues for the importance of regular team meetings as a way of sustaining team effectiveness. The last issue points out how understandings differ in regard to what it is to be a team, and how Omsco management might address these differences.

Implication for teams: Accountability. Two central questions that were implied by both teams in their talk and actions were, How should direction be given in a self-directed work team? To whom are members accountable? Each team raised the questions from a different set of assumptions, core values and experiences, but the essence of their queries were similar. Each team's construction of the issue is first discussed separately; then suggestions for future action are given.

Plant A

"'Cause if the team's said this is what we want, and a shift isn't willing to go do it, then somewhere you need somebody with power to say, 'Hey!'"

"If someone tells me why they didn't clean it--is it my responsibility to ask somebody why you didn't do a job? or is it the person that didn't do it, their responsibility?"

As discussed in Chapter Five, tensions among the Plant A team members were such that the issue of addressing interpersonal differences had become a central concern. A web of beliefs and assumptions framed the issue for team members. First, the long-standing pattern that some authority figure, typically the supervisor, was the person who saw to it that people did their jobs and who took care of resolving conflicts between people, prompted the belief that the conflict resolution is the domain of a supervisory figure. Secondly, a commonly held definition of "team" was a group without supervision. If these first two assumptions held, then a team would be unable to resolve its interpersonal conflicts, because no one had the authority to do so. In fact team members expressed this when they suggested their powerlessness in prompting another team member to change a behavior, "You say something to them, but who are you? You're not the boss." Consequently, several team members expressed the belief
that in a high performance work team, since there was no "boss," it was the facilitator's job to police the workforce. This belief was supported by the facilitator's actions early in the team's history.

In addition to these beliefs, team members were guided by a core value that suggest a duality between the work of production and the work of management. The work of production was the primary responsibility; the work of management was lesser work, even "the glamor part of the job." Even if it is ultimately the responsibility of the team members to address conflict on their own, according to this view, conflict resolution is managerial work, and thus of lesser importance.

Plant A team members seem to have an assumption set that makes accountability ambiguous; in times when a team member needs direction or feedback to change a behavior, there is uncertainty about who should give direction and how that direction should be given. The idea of being accountable to each other is an unfamiliar idea. Members generally feel powerless to direct others; the one way they have found to hold a person somewhat accountable is through bantering. And since the work of interpersonal conflict is not production work, it is not a primary concern. The Plant A team's accountability dilemma then was, to whom should we be accountable?

Plant B

"...you're not working under somebody, it don't feel like. Pretty much do what you want, get you're job done. Not someone standing behind you and making sure, telling you what to do."

"...we seem to work together... we don't make a decision, not unless we talk to the other people. So that's one good thing; we have enough respect for each other."

"Not being actual 'supervisors,' it can somewhat be awkward to be direct when dealing with peers without looking like you're trying to be a boss over them. Bantering can get the point across without that 'boss' appearance."

The Plant B team was united by their common story of accomplishments, and their vision of the future. Their actions were also grounded in a core value system that advocated working together in a mutually supportive, cooperative way, in which responsibility and decision making were shared. These underlying beliefs and assumptions shaped a frame for viewing the team that enabled members to act autonomously.
The view of the team as autonomous combined with three related beliefs about supervisory roles. First, a team was not supposed to have a boss. Second, management figures should not "boss" the team; this includes both "dictating" their actions and excluding them from decision making. Third, team members, while acting autonomously, should not act like "the boss". In view of their belief that they should be self-directing, team members felt a tension whenever they perceived that someone else was exercising too much control over them.

In Plant B, an issue that exemplified this tension was the view of some team members that some people were too directive in the MMI role. What team members liked about the team was the freedom "to be my own boss" yet they also recognized that people had to be held accountable to getting the work of the team done in a team-like manner. An MMI person who was too directive violated core values of the team and went against their collective belief about what made a team effective. The Plant B team's accountability dilemma then was, how can we hold each other accountable and still have the freedom to be our own boss?

How can members of a self-directed work team address issues of accountability? The question, to whom are team members accountable, can be contemplated in view of the definition of a self-directed team. If the team is self-directed, they are not other-directed; so the notion of being accountable to a supervisor, facilitator, or some other authority figure, for the day to day responsibilities of the team does not fit with the team concept. Furthermore, by definition, teams are not a collection of individual efforts, but rather a collective, interdependent effort; therefore to say that persons are accountable to themselves alone is inadequate. Thus, team members in a self-directed work team must be accountable to each other. Learning to hold each other accountable with respect and empathy, and with recognition of each person's self-worth is a necessary task of a self-directed team. As these teams have demonstrated, it is a new way of thinking about accountability, that requires some adjustment and some effort.

In addressing the question, how can we hold each other accountable and still have the freedom to be our own boss, it is suggested that these two concepts are not mutually exclusive. If team members hold each other accountable with respect and empathy for each team member's personhood, they do not curtail individual freedom, but rather expand it. When team members are open to and accepting of each
individual's gifts, values, and realities, both the person and the team can become what they desire to become (Peck, 1987).

It is suggested then, that the teams inquire into this particular aspect of their team experience. It is suggested that team members reflect face-to-face on their perspectives on and expectations for accountability in the team. Some questions for reflection are offered:

Do we want, as an outcome, to be accountable to each other?

How can team members go about holding each other accountable with respect, empathy, caring, and regard for self-worth?

What resources do we have within the team to achieve this outcome?

What other resources do we need?

How will having this outcome fit with our other important outcomes (for example, producing good product, achieving the goals of the incentive plan)?

Implication for teams: The importance of team meetings. Given the importance of information flow raised by both teams, and in view of the observations of the communication of team meetings, it is highly recommended that both teams persist at having regular team meetings. Unlike shift-change or written communication, the team meeting is a communication medium dedicated to face-to-face exchange of information between all members of the team at once. It is a place where all members can get the same information at once. It is a place where team members can pool all their resources; team members can learn from those with whom they do not have regular contact on the job. It gives members a chance to practice their communication repertoire, and facilitates on-going dialogue.

Although some have suggested that shift-change communication was the only face-to-face communication necessary, it is inadequate when it comes to exchanging information about interpersonal differences. Communication that was observed at the shift change took place within a limited time period, and was focused on information needed to run the operation. Interpersonal problems, such as tasks that were not done or were not done correctly, often are not discovered until the members of the other shift have left. However, even if the team member in question was still available, time constraints would make effective communication of interpersonal issues difficult;
feedback and listening take more time than the shift change allows, given the need to
cover operational information.

The two types of information that are exchanged among team members—task-
related and interpersonal information—differ not only in their content, but in the ease
by which members convey them. Task-related information is shared in team meetings,
in written communication and in the shift change meetings; generally, that sharing of
information is fairly adequate and apparently quite comfortable. Between team
members, the sharing of interpersonal information, such as giving feedback about a
particular behavior or about performance is more difficult, more time-consuming, and
less natural to the team members than task-related communication. The idea of it being
"less natural" refers to the teams core values. Given the high value placed on
production-oriented outcomes, communication about task issues is something team
members do naturally; communication to resolve interpersonal issues, on the other
hand, was neither expressed as a core value, nor has it been an integral part of team
members' repertoire in the past.

That it is more of a stretch and less of a priority to exchange interpersonal
information was seen in both teams. In Plant A, the paradox of calling for
communication and not taking the initiative to communicate indicated this point. It
seemed that the team knew that sitting down face-to-face was the only way to begin to
address their tensions. However, while team members complained in their interviews
about the other shifts, the extent to which they addressed problems with other shifts
was by taking it through the facilitator, by "throwing a barb", and by leaving notes.
The team meeting was initiated by the facilitator, not the team. At the Plant A team
meeting, team members were observed to use the safe, familiar territory of task issues
as a place from which to move into the unfamiliar territory of dealing with
interpersonal differences. In Plant B, team members often voiced the opinion that a
team meeting was time well-spent when it had been used to solve operational
problems, train people on procedures, or give people needed information. Meetings in
which people aired their views and differences, but took no action were seen as less
productive. Clearly then, one threat to regular team meetings could easily be the
teams' inclination to not meet unless there is a operational or production concern to
discuss.

Even though the team may be predisposed to meet only when operational
issues or serious problems arise, they are advised to be tenacious about having regular
meetings. The meetings promote face-to-face discussion, the benefits of which may not be noticed at the time of the meeting. The benefits of team meetings accrue over time through effective communication patterns that are established. If a team meets infrequently, it will not have the opportunity to develop an effective communication repertoire. If a team only has a meeting when it has a problem, not only will it have to solve the problem, but it will also have to do so with having established a dialogue across the team. Meetings are opportunities to practice good communication, so that when a problem emerges, members are ready to deal with it effectively and efficiently.

Implication for Omsco management: articulate what it means to be a team.

One practical implication of this research for those who initiated the team concept at Omsco is the subtle issue of clarifying what it means to be a team. In view of the way the concept is described in the general talk of team and non-team associates alike, the collective definition may not match Omsco's intent behind the implementation of teams.

The development of this definition can be traced by reviewing the history of the work teams. Prior to the inception of the team concept, the work group in Plant A was acting collectively, and doing so with very little supervision. When the plan to implement the teams was formulated, management recognized that Plant A was acting much like a team, and decided to implement the team concept in this group as well as in the new plant. That recognition further solidified the notion that to be a team was to be unsupervised. As noted in Chapter Five, the name "high performance work team" could be defined to be congruent with what the team was already doing—running a highly effective ("high performance") production operation ("work") without supervision ("team"). When the interviews were given to the Plant B people, the notion of team = no supervision was reinforced again; what Plant B team members remembered most about what the interviewers had told them about the team concept, was that they would be working without a supervisor. The implicit definition of what it is to be a team at Omsco has come to revolve around the notion of "no supervision".

"No supervision" is not the same as "self-managing" or "self-directing"; the latter phrases indicate that someone has accountability and responsibility. The theme that surfaced from the Plant A data indicated that to define a work team as self-managing was quite different from defining it as high performing. As noted in Chapter Five, several members of the team held the view that the work of managing was not of the same value as the work of production. Accordingly, to become a self-
managing team was a different and contrary notion than to be a high-performance work team. Yet I believe that self-direction was the original intention of Omsco management when implementing the team concept. It appears that when people were either told or recruited to be on teams, the definition that was implied and inferred was different from the definition that was intended. The words and actions that created the teams may have provided a guiding framework that subtly countered a goal of the team concept. The subtle difference may be of importance not only to the present teams, but also for implementation of future teams at Omsco. Therefore, Omsco may wish to revisit exactly what it intends the work of its work teams to be, to clearly specify those outcomes, and to construct a definition that portrays and conveys those desired outcomes.

Assuming that Omsco's desired definition of work team includes that the group be self-managing, Omsco is advised to strive for a definition that portrays a work team as a group that conducts both the production responsibilities and the management responsibilities. In other words, these responsibilities should be framed as both-and, rather than a primary and secondary. If that clarification is made, Omsco should recognize that simply presenting that definition to team members will not bring about understanding of and enacting what an Omsco team is to be; for team members to act in terms of that definition, it must be congruent with their values. Therefore, communicating this subtle difference calls for an empathic and creative approach on the part of management. Empathic understanding of team members' value orientation to the definition sheds light on their barriers to understanding. Empathy enables management, not to change the value system of team members, but rather move with it to a shared understanding of the goals of the work team. In other words, the recommendation here is not about changing the view that managerial work is not real work; rather it is about demonstrating that the valued work, the work of production, is enhanced by the interpersonal work of the managerial position. This demonstration entails, not just providing the rationale, but showing in action that the two responsibilities are connected. It is suggested here that if managerial work and communication can be connected to production work through the shared value of commitment to production, the whole of the team experience and its outcomes will be enhanced.

Sensitivity to definitional issues already exists at Omsco. Earlier it was mentioned that the name of the teams had been changed from "high performance" to
"self-directed" a year after the team concept had been implemented. Although the rationale behind the change was different that that noted here, in view of these findings, that name change might have been even more appropriate than was thought at the time, because it frames the team more in terms of what the teams' ultimate goals and responsibilities are.

Closing thoughts

Ultimately, the people inside the team are the ones who make it or break it. In their everyday interaction, in the way they talk to each other, in the way they interact with and respond to their support groups and management personnel, the people inside the teams construct the realities from which they act. Correspondence of those realities to those of the company or its management, makes them no more or no less valid. What exists as reality for one team member or for the whole team, will influence action. Multiple realities count. This study was a testimony to the importance of teams' constructed realities. For the Plant A team a reality was resistance and tension; for the Plant B team, a reality was a vision of the team's potential. Their actions were concurrent with their realities.

The individual forces that shape those realities count too. The members of the two teams were very different; the mix of the two teams was very different. Although team members held some common values that shaped the core values of the teams, individual value systems varied widely. Each person's frame of reference and how those individuals combine to form the whole of the team affects ultimately what a work team is and what a work team does. To consider these interpersonal factors lightly, to consider them as secondary, or to not consider them at all in implementing or researching self-directed work teams, is to is to ignore the heart and soul of team success.
Observation Guidelines: Effective Feedback

The feedback itself.

Effective feedback is specific.
- It includes descriptions of behaviors and observed events, and presents clear evidence.
- It includes clear descriptions of the consequences of the behavior or event of concern.

Effective feedback is descriptive, rather than evaluative.
- It includes a clear description of the behavior, rather than evaluative statements about the person.
- It separates the central issue of the feedback from the person.

Effective feedback is well-timed.
- It is given as soon as possible after the occurrence of the behavior or event of concern, mindful of the readiness of the receiver.

Effective feedback is directed toward behaviors that the receiver can do something about.
Presentation of negative feedback is combined with presentation positive feedback where possible.

The giver of the feedback.

Feedback is effective when the giver is direct.
- The giver speaks directly to the person whose behavior is the subject of the feedback.

Feedback is effective when the whole person of the sender is congruent with the message; this includes tone of voice, and nonverbals such as facial expression, gestures, body posture, eye contact. (For example, a person who says s/he cares touches the other on the forearm.)

Feedback is effective when the giver chooses words that match the message.

Feedback is effective when the giver takes ownership of the feedback.
- The sender attributes the feedback to his/her thoughts, feelings, reactions.
- The giver is candid about stating his/her feelings as they relate to the subject of the feedback.

Feedback is effective when the giver checks with the receiver for clarity.
- The giver asks receiver to rephrase the feedback in order to ensure that the message received corresponds to the sender's message.
- The giver is open to a receiver who attempts to state his/her interpretation of the feedback.

Qualities displayed by the giver of feedback enhance effectiveness.
- Feedback is effective when the giver presents it in an assertive, dynamic, responsive, and relaxed manner.

Feedback is effective when the giver uses questions to seek information, rather than being used to make statements.
Giver responsiveness to the receiver.

Giver is sensitive to the receiver's readiness to receive feedback.
   The giver waits for anger, or other strong emotions to subside.
Giver is attentive to the receiver's request for feedback.
Giver is sensitive to information overload.
   Giver is mindful of the amount of information the receiver can process and use at one time, particularly if the feedback is negative.
Giver affirms the receiver as a person and acknowledges his/her worth.
   Giver acknowledges receiver's right to have any feelings and reactions s/he may have regarding the feedback.
Giver is sensitive to preserving the receiver's public image.
   Negative feedback is given privately.
Giver is fair, trustworthy, credible;
   The receiver perceives the giver as fair, trustworthy, credible.

Receiving feedback.

Feedback is effective when the receiver makes an effort to understand what is being communicated by being open-minded and non-defensive.
Feedback is effective when the receiver takes the initiative to clarify what s/he does not understand.
Feedback is effective when the receiver takes the initiative to summarize what s/he does understand.
Feedback is effective when the receiver develops a receptivity to feedback.
   The receiver indicates readiness to accept feedback by asking for examples of behaviors relevant to the feedback.
Feedback is effective when it is solicited by the receiver.
   The receiver initiates the feedback process.
   The receiver poses a question about his/her behavior for which an observer can provide information.
Feedback is effective when the receiver has developed good listening skills.
   The ability to listen actively demonstrates receptiveness to feedback (see next section).
Feedback is effective when receivers support the efforts of the giver.
   The receiver respects and trusts the giver of feedback.
   The receiver supports the giver by giving an example of the behavior that s/he thinks is the subject of the feedback, if the giver is having difficulty presenting a specific example.

Feedback as a mutual process.

Effective feedback occurs when there is trust between sender and receiver.
Effective feedback takes into account the needs of both the receiver and giver of feedback.
   Both receiver and giver articulate their needs in the transmission of feedback.
In effective feedback the giver involves the receiver in the feedback.
   Effective feedback frames the issue as mutual problem-solving.
   Giver of feedback presents the situation as "our problem", rather than "your problem".
The exchange of information is two-way.

The feedback generates a dialogue in which ideas and information are shared between the giver and receiver.

The emphasis is on creating alternatives, not merely finding a solution.

People, whether in sender or receiver role, take more than half the responsibility for the effectiveness of communication.

In the sender role, the person develops the intention to build feelings of security in the receiver.

In the receiver role, the person develops the intention to listen from the sender's point of view, rather than receiving the communication in terms of one's own perspective.

Persons make a conscious effort to build feedback into all communications.

Persons acknowledge the role of feelings in the sending and receiving of communications.

They are not only tolerant of other people's feelings, and recognize that other's feelings may be different from their own, but they also expect that feelings will affect their and others' messages and interpretation of messages.
Observation Guidelines: Effective Listening

Listener behaviors - self as listener.

Listener demonstrates commitment to becoming an effective listener by seeking self-knowledge.
Listener identifies perceptual filters, assumptions, predispositions.
Listener attends to the feelings and emotions that arise within him/herself in the process of communication.

Listener listens for the full content of the message.
Listener waits for the speaker to give the complete message.
Listener uses "lag time" (difference between speaking rate and processing rate) to attend to all cues, and can give sender an account of the verbal as well as nonverbal messages.
Listener can articulate the central themes in the message, as well as the surrounding facts, details, nonverbal cues.
Listener looks for points in the subject matter that are of personal interest;
Listener "asks 'What's in it for me?'"

Listener eliminates distractions to listening.
Listener eliminates physical distractions; (For example, puts phone calls on hold, asks not to be disturbed, clears desk); listener makes listening his/her one and only activity.
Listener avoids cognitive distractions; (For example, mentally rehearses listening without worry, fear, anticipation, expectations).
Listener avoids process distractions; (For example, attention to the speaker and the communication is indicated by taking a minimal amount of notes).

Listener behaviors - person to person.

Listener concentrates on the other person as "communicator".
Listener views the other as an information and idea source.
Listener attends to the content of what is said regardless of delivery difficulties;
(For example, mannerisms, delivery, accent, dialect).
Listener acknowledges that while the person may a member of other categories, for now the category of membership is "communicator".

Listener responds to the full message of the speaker by attending to all the cues, verbal and non-verbal.
Listener listens to tone of voice, the vocabulary, the speaker's preferred representational system, the verbal messages, and the silences.
Listener attends to the gestures, the eye contact, the body posture and movements, the demeanor of the other.

Listener seeks complete understanding of the message and the speaker before evaluating.
Listener evaluates and responds only after the speaker finished speaking and after the listener has checked her/his understanding.
The listener is patient, avoids interrupting or arguing with the speaker.
The listener devotes attention to information and puts evaluative thoughts aside.
Listener listens in order to **understand the feelings of the speaker.**
- Listener attends to emotional words in their context;
- Listener responds to emotional words as cues rather than attacks.
- Listener attends to nonverbal cues as they relate to the feelings.

**Listener demonstrates empathy for the speaker's feelings.**
- The listener uses the speaker's information to recall a similar personal experience or feeling, in order to empathize with the speaker.
- The listener uses nonverbals such as touch, eye contact, head nodding, leaning toward the speaker, mirroring body posture of the speaker to communicate interest and understanding.

**Listener behaviors - as co-creator of communication.**

**Listener asks questions to further his/her understanding.**
- The listener asks the speaker to say more in order to better understand and to clarify meaning and message.
- The listener asks the speaker to say more about how s/he feels.
- The listener paraphrases in order to test accuracy, demonstrate empathy for the speaker, build trust and co-create meaning.
- The listener tests for accurate receipt of the sender's message by reproducing the content of the message in his/her own words.
- The listener restates the message interpreted from nonverbal cues; (For example, "I see how upsetting this is for you--you have tears in your eyes").
- The listener's tone of voice reflects tentativeness, thereby communicating empathy and the intent to understand; (For example, "I suppose that made you feel..." or "If that were me I would have felt...").
- The listener allows the speaker to remain in control of the discussion.
- The listener builds on or extends the ideas of the speaker; (For example, "Would that mean that...?" or "So that might lead to a situation in which...").

**Listener responds to difficult or unpleasant subject matter as challenging by encouraging full discussion.**
Observation Guidelines: Self-disclosure

**Perceptions, assumptions, conditions precipitating disclosure:**
- The person perceives that s/he is willing, unprovoked and honest.
- The person sees self as changing and growing.
- The person perceives the other to be a good listener.
- The person sees the other as competent to respond to the information in an appropriate manner.
- The person perceives the other to be someone who will honor the confidentiality of the disclosure.
- The person has previous experience with the other honoring confidentiality.
- The person believes the other has no interest in or intent to use the information maliciously, to use the information to gain power over the disclosing person.
- The person assumes that the world is basically a friendly, rather than hostile, place.
- The person views information as critical to problem solving, rather than as a tool for gaining power.
- The person indicates that s/he desires to create or further develop a relationship with other.

**Group norms support disclosure and encourage openness.**
- Group has a history of positive disclosure experiences; group members tell stories of positive disclosure experiences.
- Group is characterized by a high level of trust between members.
- Members have strong liking or love for each other.
- Members have developed effective listening skills.

**The disclosure itself.**
- A person makes a self-descriptive statement to another person or persons;
  - The statement contains personal information of which the other(s) were unaware prior to the communication;
  - The person intended to disclose to the other;
  - The statement is not a lie, or a misrepresentation or concealment of information.
- The disclosure is voluntary.
- Self-disclosure includes sharing the uniquely personal information of one's emotions and feelings.
  - The disclosing person reports emotions and feelings as a description of his/her experience.
  - The disclosing person reports emotions and feelings as they are occurring.
  - The disclosing person does not allow the conscious mind to censor the expression of emotions; the disclosing person views emotions, not as good or bad, but simply as facts.
  - The disclosing person neither represses emotions, nor lets emotions control him/her.
  - The disclosing person owns the emotions that are reported; that is s/he does not imply judgment in disclosing emotions and feelings to others; for example, "I feel angry" rather than "You make me angry".
The extent of self-disclosure.

The extent of self-disclosure can be observed as the number of self-descriptive statements per minute of conversation, (or per group meeting).
The extent of self-disclosure can be observed as the number of self-descriptive statements per member in a group meeting.
The extent of self-disclosure can be observed as the number of different self-descriptive topics disclosed per person.
The extent of self-disclosure can be observed as the number of different self-descriptive topics disclosed within the group.

The depth of self-disclosure (degree of intimacy) is person and context specific.

The discloser indicates that the topic was a deeply personal one.
The receiver of the disclosure perceives the topic to be a deeply personal one (but may view the topic differently in his/her personal experience).
The participants indicate the degree of intimacy based on how well they know each other and the group's past history of disclosure.

Disclosure can be observed to be symmetrical.

One person's disclosure will be followed by another person's disclosure.
A facilitator generates disclosure from group members by self-disclosing first.
The extent of self-disclosure can be observed as the number of reciprocal disclosures between group members.

Self-disclosure patterns across time can be observed to change.

The breadth of topics will move from positive to negative as time goes on; (that is, people will be more willing to disclose negative topics the longer the history of the relationship).
The depth of self-disclosure will increase in intimacy over time.
Disclosing parties describe changes in the nature of disclosures across time.
Disclosing parties describe changes in the relationship over time that indicate a predisposition to disclose; for example, "we are more open, more trusting".
Participants can be observed to engage in riskier topics as time goes on; for example, topics that imply competence and worth, topics that deal with someone who is present; topics that concern present actions and issues (rather than past); topics concerning feelings.
Observation Guidelines: Effective Facilitation

Facilitator values.

Effective facilitators have respect for the person.
The facilitator respects the autonomy of the person; the facilitator acknowledges the whole person in his/her relationship to the group (for example, the person's other memberships and commitments, level of development, personal qualities).
The facilitator affirms the person, acknowledges the worth and rights of every person.
The facilitator's talk separates behaviors and issues from persons.
The facilitator respects the right of the participants to choose when to change and grow.

Effective facilitators are caring towards team members.
The facilitator articulates values of caring and support for team members.
The facilitator acts in a caring and empathetic way towards team members.
The facilitator demonstrates interest in helping others become productive group members.
Group members report helping behaviors on the part of the facilitator.
Group members perceive the facilitator as caring, empathetic, warm genuine, and respectful.

Effective facilitators of self-directed teams advocate choice making.
The facilitator creates a safe environment in which members can make choices and take responsibility for their choices.
The facilitator makes choices as one of the group members.
The facilitator enables choice making but does not pressure people to make choices.
The facilitator uses group decision making at every opportunity.
The facilitator directs the group in group decision making processes.
When decisions must be made rapidly by the facilitator, the facilitator is able to clearly explain the rationale without disempowering team members.

Facilitator behaviors, skills, predispositions.

Effective facilitators are stewards of group process.
The facilitator guides the team's discussions based on agreed to procedures and processes.
The facilitator directs or negotiates or delegates the creation of team objectives and structures; the facilitator then supports the objectives and structures through his/her actions.
The facilitator sets the agenda for or with the members, or receives the agenda from the members; the facilitator checks with the members for changes to the agenda; the facilitator refers to the agenda throughout the group discussion.
The facilitator references group norms as guidelines for actions, or as barriers to progress.
The facilitator asks pointed questions to guide the team through the process.
The facilitator helps clarify what members should be doing.
The facilitator guides the group through efficient communication processes, by
modelling, teaching, and creating experiential learning opportunities. (See
"feedback" and "listening.")
The facilitator helps team members learn the role of effective facilitation by
teaching facilitation skills to them, and by modelling effective facilitation.
The facilitator focuses group energy towards common desired outcomes.

Effective facilitators have a wide **repertoire** of techniques and exercises from
which to draw.
The facilitator can discuss a range of options for action in a particular setting.
The facilitator can be observed to use a variety of techniques over time.

Effective facilitators are **flexible**; they are capable of making appropriate **choices**
from their **repertoire** relative to the area of group action and to the level of
development of the group and its members.

The facilitator chooses a technique that is appropriate to the situation:*  
The facilitator does things **to** and **for** the group when members need to
learn the fundamentals of self-direction, because they have never had
the experience of being self-directing.
The facilitator does things **to** and **for** the group when members are just
learning about being team members, and have little confidence in their
abilities.
The facilitator does things **with** the group where members are developing
competence and confidence in working as a team.
The facilitator does things **with** the group where cooperation needs to be
modelled and practiced.
The facilitator delegates activities to the group when members have become
competent and confident.
The facilitator operates in the background, giving the group freedom to do
things its own way and be fully responsible for its actions when
members have become competent and confident.
The facilitator moves with ease between situations, responds with ease to the
needs of the situation:*  
The facilitator can move between soft and hard dimensions of activities,
such as responding to feeling needs of members while creating
objectives and structures.
The facilitator can in one moment direct the group in making sense of their
actions, and in the next moment step back and observe the group
creating its own objectives and structures.

*(These examples of flexibility in context illustrate some facilitator choices and
are not meant to be an exhaustive list.)*

Effective facilitators are **skilled at confrontation** of issues and behaviors that
are disruptive to group process and to group and personal development.
The facilitator brings about awareness of issues being resisted or avoided,
resistant behavior, or sources of that behavior.
The facilitator ensures that confrontation is non-judgmental and respectful,
affirming, and supportive of persons. (This has been called "care-
frontation").
The facilitator practices self-confrontation and self-disclosure in the group.
The facilitator chooses the appropriate mode of confrontation based on the context:
The facilitator confronts team members, individually and collectively, regarding resistance to and avoidance of the things that need to be addressed in the group.
The facilitator directly interrupts the resistant behavior and gives an interpretation of it; the confrontation is unsolicited by group members. (For example, "I think we are avoiding issue x", "I think the behavior y is a way of avoiding some important issue", or "I think z is causing us to get stuck in behavior y as a way of avoiding issue x.")
The facilitator proposes an action that interrupts and challenges the resistant behavior; by taking the action group members are forced to confront the issue. (For example, "Sue, will you speak to Bill now about the support you are willing to give to his idea?")
The facilitator prompts, encourages, elicits, and invites confrontation by members; if the facilitator directly confronts members, it occurs after other group members have done so.
The facilitator asks a question that interrupts the resistant behavior; the question elicits group member responses so that they confront the issue or behavior together. (For example, "what is it that's holding the group back from completing this project?" or "what issues have occurred to you that you are avoiding bringing to the discussion?")
The facilitator makes a descriptive comment about a behavior without interpretation; group members may choose to confront each other on whether or not the behavior is dysfunctional. (For example, "You have spent 30 minutes of your 2 hour meeting discussing the agenda.")
The facilitator invites members to tell stories or use metaphors to characterize the avoided issue, the resistant behavior, and its source; facilitator joins in the sharing of stories.
The facilitator creates a climate for safe confrontation; the facilitator's way of being promotes respect, support, trust, safety; the facilitator does not confront members directly or indirectly.
The facilitator sets up exercises in which group members confront others or themselves in small groups.
The facilitator establishes a ground rule by which any person can assume a devil's advocate role from which to confront others.
The facilitator makes it explicit that s/he will not confront others; all confrontation is done by group members.
*(These examples of confrontation behaviors demonstrate some context-dependent facilitator choices and are not meant to be an exhaustive list).

Effective facilitators seize every opportunity to teach team members how to work together effectively and communicate effectively with each other and across the organization.
The facilitator models good communications skills, (including feedback and listening skills).
The facilitator sees each interaction as a learning opportunity and chooses a technique based on the learner's readiness (see "flexibility").
Effective facilitators are confident and at ease in front of a group of people. The facilitator reports that s/he is energized by and enjoys being with the group. The facilitator is assertive in the use of his/her repertoire. Group members report that the facilitator is confident, appears to enjoy the group.

Effective facilitators use their authority in a selfless manner, for the good of the group and its members. Facilitator does not use authority as an outlet or forum for venting personal problems.
Observation Guidelines: Effective Leadership/Effective Participation

Participating in work teams—effective skills and behaviors.

Team participants have decision making skills.
Team members rely on facts, data, and logic in decision making.
Rank, status, position, most vocal member, majority rule or pressure tactics do not influence decisions.
After reservations and disagreements are resolved, members support the decision.
Team participants have clear goals and objectives.
Members can state where their performance is relative to those goals and objectives.
Members review process and results with each other.
Team participants are able to coordinate their activities.
Members demonstrate that they can work interdependently to accomplish objectives.
Members work together perform quality work in a timely manner.
Team participants demonstrate effective communication.
Members are clear and candid in their communication.
Members share facts, feelings, viewpoints.
(See "feedback," "listening," and "disclosure".)
Team participants are able to critique behaviors, results, plans, structures, models of thought.
Members engage in continuous critique of quality and effectiveness.
Members share reservations, thoughts, feelings, expectations related to task accomplishment.

Leading work teams—effective skills and behaviors.

Leaders hold a commitment to self-directed teams.
Leaders take initiative, have a personal readiness for action.
Leaders have strong interpersonal skills.
The leader maintains good relationships with fellow team members and with management.
The leader is supportive in relationships with others.
The leader creates an environment in which supportive relationships are nurtured.
Leaders demonstrate strong organizational and facilitation skills.
The leader encourages group decision making and consensus.
The leader effectively facilitates group decision making (see "facilitation").
Members together choose tasks, methods, and standards.
Leaders have the ability to perform the jobs of the team.
Leaders reinforce commitment and quality results.
Members are committed to high performance.
Leaders teach others.
Leaders encourage and enhance the sharing of responsibility.
The leader enables people to take actions for which they can be responsible.
The leader takes responsibility for his/her own actions.
Leaders reinforce constructive assessment of other group members.
The leader creates a safe environment for confronting existing ways of
thinking, behaviors, or issues.
The leader responds to and confronts behaviors and results rather than
personalities.
Members review process and results.
Leaders have an understanding of the context of their own actions.
Observation of Disconfirming Evidence

What constitutes ineffective feedback?

Feedback given is general, lacks specific behavioral and observational data.
Feedback is given based on inferences, rather than on direct observation.
The consequences of the subject of the feedback are not given or are unclear.
Feedback refers to the person and his/her personality as the problem, rather than to a behavior or event.
Receiver of feedback feels judged; receiver reacts defensively.
Feedback is ill-timed:
  Feedback is given about a behavior that occurred in the distant past.
  Receiver is not ready to receive the feedback due to his/her highly emotional (angry, upset) state.
Feedback is given about a behavior over which the receiver has no control.
The giver does not ask the receiver to rephrase the feedback as a clarity check.
The giver of feedback does not allow the receiver to speak his/her interpretation, or to volunteer clarifying information.
Person receives feedback about his/her behavior second-hand, through a third party, rather than from the person who observed the behavior.
The giver of the feedback gives nonverbal cues that are incongruent with the feedback; (For example, giver says she agrees with and approves of receiver's actions but has a scowl on her face).
The giver of feedback attributes responsibility for the feedback to a third party; (For example, "People" are saying you are...; or "management" wants you to ...).
The giver of feedback conceals true feelings as they relate to the subject of the feedback by denying, distorting, or misrepresenting them.
The giver of feedback uses sarcasm, sulking, nonverbal cues to indirectly indicate his/her feelings as they relate to the subject of the feedback.
The giver of feedback uses "questions" as a way of making statements or as traps, rather than as a way of seeking information. (For example: Do you really think you can come in late everyday?)
The giver presents the feedback in an non-assertive, aggressive, authoritarian, or anxious manner.
The giver of feedback lacks trustworthiness, credibility, objectivity.
Feedback given overloads the receiver with information. Receiver expresses frustration such as, "I don't know where to begin" or 'I'm overwhelmed...".
The giver minimizes, discredits or negates the receiver's reactions to the feedback (For example: "you're over-reacting", or "you're too emotional ")
Giver publicly humiliates or embarrasses the receiver. Negative feedback is given publicly.
Receiver adopts a defensive or closed-minded stance toward feedback.
Receiver does not actively listen to feedback.
Receiver is a passive participant--does not demonstrate understanding by summarizing the message; does not seek clarification of the message by asking for examples; does not demonstrate receipt of message through nonverbals (such as nodding, open body posture, note taking).
There is minimal trust between giver and receiver.
Giver of feedback presents the situation as "your problem", rather than "our problem".

The feedback is given in a way that does not involve the receiver.

- The giver gives advice and presents directives.
- The receiver does not participate in solving the problem.

Giver and receiver release feelings but do not solve the problem.

Senders do not take responsibility for the effectiveness of communication.

Receivers do not take responsibility for the effectiveness of communication.

Senders generate feelings of insecurity in the receiver.

Receivers only receive the communication in terms of their own perspective, and do not attempt to listen from the sender's point of view.

Persons state that feelings have no place in communication.

Persons are intolerant of other people's feelings;

Persons do not accept viewpoints or feelings that differ from their own.

What constitutes ineffective listening?

Listener interrupts with synthesis of the message before the speaker is finished.

Listener uses lag time to think of what to say next, to evaluate, to prepare for making the next point in the argument, and to ponder things unrelated to the message.

Listener focuses on one point and fails to listen to the rest of what the speaker has to say.

Listener allows feelings of anxiety generated from the speaker's message to get in the way of listening.

Listener attends to the facts and details only.

Listener attention drifts away during a lengthy message and part of the message is lost.

Listener calls the subject personally uninteresting, boring, irrelevant.

Listener is preoccupied with his/her own role in the interaction.

Listener displays lack of concentration on speaker's communication; (For example, reads a memo, eats his lunch, answers the phone, writes a note to himself).

Listener puts most of his/her attention into note taking, rather than into attending to the speaker.

Listener misses part of the message because s/he is noting a previous part of the message.

Listener modifies a new message so that it sounds like previous messages.

Listener modifies message so they are in agreement with his/her own.

Listener evaluates messages with either-or thinking: right-wrong, good-bad, approve-disapprove, agree-disagree.

Listeners talk reflects that categorization limited listening; (For example, listener stereotypes, then listens for confirmation of the stereotype).

Listener is distracted by or criticizes the speaker's mannerisms, delivery, accent, dialect.

Listener selects only the cues that s/he considers important; (For example, regards the speaker's wringing of hands as emotional and irrelevant).

Listener interrupts; listener enters into an argument.

Listener reacts to emotional words by displaying anger, hostility, emotions.

Listener "fakes attention" to the speaker.

The listener uses nonverbal such as yawning, looking at watch, looking out the window, folding arms in front of him/her.
The listener's statements about the speaker's feelings are given in a critical or evaluative tone of voice. Listener avoids difficult subject matter; listener changes the subject to something more pleasant; listener treats the speaker's serious issues lightly.

What would be observed as dysfunctional facilitation?

Facilitator disaffirms group members; (For example, calls them 'stupid', speaks to them in demeaning or patronizing terms, makes assumptions that they are incapable, tells a member s/he has a problem.)

Facilitator treats team members disrespectfully; (For example, does not listen, is discourteous, violates their private space, expects them to have the same developmental interests, goals and motivations as s/he.)

Group members are pressured into making choices and taking action.

Facilitator makes decisions for the group and does not communicate the rationale.

Group members previously agreed to objectives, structures, procedures, processes, or agendas are disregarded or replaced by those of the facilitator.

Facilitator conducts discussions with an "iron hand", that is, members are not given the opportunity to revise or challenge procedures.

Facilitator models ineffective communication (see "feedback" and "listening").

Facilitator repeatedly uses the same limited number of facilitation techniques.

Facilitator takes a directive action (or takes a co-operative action, or delegates) when a co-operative action (or delegation, or a directive action) would be more appropriate to the context.

Facilitator confronts group members by attacking personalities rather than behaviors or issues.

Facilitator uses confrontation to "trap" group members, assign blame, find scapegoats.

Facilitator avoids confrontation in an effort to preserve group harmony, keep everyone happy.

Facilitator does not teach members to self-direct for fear of losing power.

Facilitator dislikes conducting team meetings and prefers to make decisions on his/her own.

Group members are ill-at-ease, intimidated, or de-energized in meetings facilitated by this person.

Facilitator used group discussions to exercise influence over others, for personal gain, or for addressing his/her own problems.

Ineffective behaviors in leadership and participant roles.

Leader is predisposed to an authoritarian style of leadership.

Leader lacks interpersonal skills.

Leader communicates ineffectively (see "feedback", "listening," and "disclosure").

Members perceive leader as non-supportive, unable to create good working relationships with team members.

Leader creates conflicts between team members.

Leader treats equal members disparately.

Leader treats diverse members the same.

Leader is an ineffective facilitator (see "facilitation").

Leader is out of touch with, and cannot perform the jobs of the team.
Leader blames others, finds scapegoats, does not take responsibility for his/her actions.
Leader does not model values and behaviors desirable in self-directed teams.

Team participants do not communicate effectively (see "feedback", "listening," and "disclosure").
Team participants are unaware of team goals and objectives.
Participants diverge when asked to articulate team objectives.
Team participants work independently and do not coordinate their efforts.
Participants use "I" language rather than "we" language.
Participants compete with each other for status, attention,
Work is not completed on time.
Some tasks are done twice.
Team participants do not engage in consensus decision making.
Participants give in to the most vocal member's point of view.
Participants make decisions by vote (majority rules).
Participants abdicate decision making responsibility.
Decisions are made without resolution of disagreements.
Team members critique each other, rather than the task, product or processes of the team.
Team members blame others, find scapegoats, do not take responsibility for their actions.

Perceptions, assumptions, and conditions inhibiting disclosure.

The person feels anxious, has something to hide, feels pressured into disclosure.
The person is defensive about his/her self-image.
The person perceives the other to be an ineffective listener.
The person sees the other as not competent to respond to the information appropriately.
The person believes the other intends to use the information maliciously.
The person perceives the other will use the information to gain power over the disclosing person.
The person has previous experience with the receiver betraying confidentiality.
The person assumes the world is basically a hostile place.
The person views information as power, as a political tool.
The person believes that disclosure will jeopardize her position by alienating co-workers.
The person indicates that s/he does not want a relationship with other to develop.
The person indicates that s/he is indifferent to further development of the existing relationship with other. For example, the person expresses the belief that the relationship cannot be improved; the person has already decided to leave the group.

Group norms discourage disclosure and punish openness.
Group has many examples of disclosure having a negative impact on members;
group members tell stories of negative experiences with disclosure.
Group is characterized by a high level of mistrust between members.
Group has specific policies that certain information may not be discussed; for example, members are told not to discuss personal issues at work, or told that their emotions have no place in a business setting. The receivers of disclosure are likely to hear the communication as personal evaluation.

**When is a statement not self-disclosure?**

Personal information that the group already knows is masked as self-disclosure. The self-descriptive statement contains lies, or misrepresentation or concealment of information. Disclosure is provoked, threatened, coerced, or pressured. Persons express that they do not feel safe disclosing personal information to the group. Disclosure implies judgments of others; for example, "You make me angry". Receivers of disclosure violate of confidentiality. Disclosure is asymmetrical; one person is observed to do most of the disclosing.
Evidence of core values can be found as members of work teams communicate with each other. The following observation guidelines are one way to observe evidence of core values among team members; the preceding sets of guidelines are regrouped here to illustrate how core values might be manifested in communicative acts. Therefore, while observing the categories of communication skills and behaviors, core values may be simultaneously inferred.

**Authenticity** - A belief that each person can be and act in a way that expresses the true self; there is congruence between what represented to others in words and actions, and what is reality for the person (Gellermann, 1985; Massarik, Margulies, & Tannenbaum, 1985).

Congruence: Persons demonstrate through their actions congruence between what they say and who they are.
- Feedback is effective when the whole person of the sender is congruent with the message; this includes tone of voice, and nonverbals such as facial expression, gestures, body posture, eye contact. (For example, a person who says s/he cares touches the other on the forearm.)
- Feedback is effective when the giver takes ownership of the feedback. The sender attributes the feedback to his/her thoughts, feelings, reactions. The giver is candid about stating his/her feelings as they relate to the subject of the feedback.

**Self-awareness**: Persons demonstrate intent to become more aware of self.
- The listener demonstrates commitment to becoming an effective listener by seeking self-knowledge. Listener identifies perceptual filters, assumptions, predispositions. Listener attends to the feelings and emotions that arise within him/herself in the process of communication.
- Leaders have an understanding of the context of their own actions.

**Disclosure is authentic action**: Persons can be observed to engage in self-disclosure.
- A person makes a self-descriptive statement to another person or persons; The statement contains personal information of which the other(s) were unaware prior to the communication; The statement is not a lie, or a misrepresentation or concealment of information.
- Self-disclosure includes sharing the uniquely personal information of one's emotions and feelings. The disclosing person reports emotions and feelings as a description of his/her experience. The disclosing person reports emotions and feelings as they are occurring.
The disclosing person does not allow the conscious mind to censor the expression of emotions; the disclosing person views emotions, not as good or bad, but simply as facts. The disclosing person owns the emotions that are reported; that is s/he does not imply judgment in disclosing emotions and feelings to others; for example, "I feel angry" rather than "You make me angry".

-The disclosing person perceives that s/he is willing, unprovoked and honest.
-The person in the role of facilitator practices self-confrontation and self-disclosure in the group.
-Team members are clear and candid in their communication.
-Team members share facts, feelings, viewpoints.

Safety - A belief that the relationship should provide a non-threatening context in which persons may be and become, and relate authentically to each other; persons can express their full selves in words and actions without their self-identity or self-worth being questioned (Heron, 1989).

Non-threatening context: The relationship between members allows for persons to be open and authentic.

-The giver of feedback is sensitive to preserving the receiver's public image.
   Negative feedback is given privately.
-The person in the role of facilitator creates a safe environment in which members can make choices and take responsibility for their choices.
-Team members have the intention to build feelings of security in the receiver.
-Team members create a safe environment in which members can make choices and take responsibility for their choices.
The facilitator creates a climate for safe confrontation; the facilitator's way of being promotes respect, support, trust, safety; the facilitator does not confront members directly or indirectly.
The facilitator sets up exercises in which group members confront others or themselves in small groups.
-Team members have the intention to build feelings of security in the receiver.
-Team members create a safe environment in which members can make choices and take responsibility for their choices.
The facilitator establishes a ground rule by which any person can assume a devil's advocate role from which to confront others.
-Team members have the intention to build feelings of security in the receiver.
-Team members create a safe environment in which members can make choices and take responsibility for their choices.
The facilitator makes it explicit that s/he will not confront others; all confrontation is done by group members.
-Team members have the intention to build feelings of security in the receiver.
-Team members create a safe environment in which members can make choices and take responsibility for their choices.

Withholding judgment: Members communicate and act towards each other in a non-evaluative way.

-The listener seeks complete understanding of the message and the speaker before evaluating.
The listener evaluates and responds only after the speaker finished speaking and after the listener has checked her/his understanding.
-The listener is patient, avoids interrupting or arguing with the speaker.
The listener devotes attention to information and puts evaluative thoughts aside.

- The person in the role of facilitator ensures that confrontation is non-judgmental and respectful, affirming, and supportive of persons.

**Safety and disclosure:** Conditions can be observed that precipitate disclosure by making the context safer.

- The disclosing person perceives the other to be someone who will honor the confidentiality of the disclosure.
- The disclosing person has previous experience with the other honoring confidentiality.
- The disclosing person believes the other has no interest in or intent to use the information maliciously, to use the information to gain power over the disclosing person.
- The disclosing person assumes that the world is basically a friendly, rather than hostile, place.
- Group norms support disclosure and encourage openness.
- Group has a history of positive disclosure experiences; group members tell stories of positive disclosure experiences.

Members become more willing to engage in riskier disclosures over time.

- The breadth of topics will move from positive to negative as time goes on; (that is, people will be more willing to disclose negative topics the longer the history of the relationship).
- The depth of self-disclosure will increase in intimacy over time. The discloser indicates that the topic was a deeply personal one. The receiver of the disclosure perceives the topic to be a deeply personal one (but may view the topic differently in his/her personal experience).

The participants indicate the degree of intimacy based on how well they know each other and the group's past history of disclosure.

- Disclosing parties describe changes in the relationship over time that indicate a predisposition to disclose; for example, "we are more open, more trusting".
- Participants can be observed to engage in riskier topics as time goes on; for example, topics that imply competence and worth, topics that deal with someone who is present; topics that concern present actions and issues (rather than past); topics concerning feelings.

**Mutuality** - A belief that all persons in relationship are worthy, autonomous, responsible, and mutually influential; there is a "level playing field" between all persons in relationship (Harmon, 1981).

**Mutual respect:** Members honor each other for who they are as a person, hold each other in equal regard.

- The listener responds to the full message of the speaker by attending to all the cues, verbal and non-verbal. Listener listens to tone of voice, the vocabulary, the speaker's preferred representational system, the verbal messages, and the silences.
Listener attends to the gestures, the eye contact, the body posture and movements, the demeanor of the other.

-Effective facilitators have respect for the person.
  The facilitator respects the autonomy of the person; the facilitator acknowledges the whole person in his/her relationship to the group (for example, the person's other memberships and commitments, level of development, personal qualities).
  The facilitator affirms the person, acknowledges the worth and rights of every person.
  The facilitator's talk separates behaviors and issues from persons.

**Affirmation**: Members celebrate each other's individual gifts, through praise and acknowledgement of achievement.
- The giver of feedback affirms the receiver as a person and acknowledges his/her worth.
  Giver acknowledges receiver's right to have any feelings and reactions s/he may have regarding the feedback.

**Empathy**: Members seek to understand from the other persons point of view.
- The giver of feedback is sensitive to the receiver's readiness to receive feedback.
- The giver waits for anger, or other strong emotions to subside.
- The giver is sensitive to information overload.
  Giver is mindful of the amount of information the receiver can process and use at one time, particularly if the feedback is negative.
- As receiver of feedback, the person develops the intention to listen from the sender's point of view, rather than receiving the communication in terms of one's own perspective.
- The listener listens in order to understand the feelings of the speaker.
  Listener attends to emotional words in their context;
  Listener responds to emotional words as cues rather than attacks.
  Listener attends to nonverbal cues as they relate to the feelings.
- The listener demonstrates empathy for the speaker's feelings.
  The listener uses the speaker's information to recall a similar personal experience or feeling, in order to empathize with the speaker.
  The listener uses nonverbals such as touch, eye contact, head nodding, leaning toward the speaker, mirroring body posture of the speaker to communicate interest and understanding.
- The listener paraphrases in order to test accuracy, demonstrate empathy for the speaker, build trust and co-create meaning.
  The listener tests for accurate receipt of the sender's message by reproducing the content of the message in his/her own words.
  The listener restates the message interpreted from nonverbal cues; (For example, "I see how upsetting this is for you—you have tears in your eyes").
  The listener's tone of voice reflects tentativeness, thereby communicating empathy and the intent to understand; (For example, "I suppose that made you feel..." or "If that were me I would have felt...").
The listener builds on or extends the ideas of the speaker; (For example, "Would that mean that...?" or "So that might lead to a situation in which...").

- The person in the role of facilitator acts in an empathic way towards team members.
- Group members perceive the facilitator as caring, empathic, warm genuine, and respectful.

**Interdependence:** Member choose to work together and accept reciprocal influence in order to co-create actions and outcomes.
- Team participants are able to coordinate their activities.
- Members demonstrate that they can work interdependently to accomplish objectives.

"**Level playing field**": People demonstrate a willingness to give and take; actions can be observed to be reciprocal and in balance.
- Feedback is effective when receivers support the efforts of the giver.
  - The receiver respects and trusts the giver of feedback.
  - The receiver supports the giver by giving an example of the behavior that s/he thinks is the subject of the feedback, if the giver is having difficulty presenting a specific example.
- The listener concentrates on the other person as "communicator".
  - Listener views the other as an information and idea source.
  - Listener attends to the content of what is said regardless of delivery difficulties; (For example, mannerisms, delivery, accent, dialect).
  - Listener acknowledges that while the person may a member of other categories, for now the category of membership is "communicator".
- The listener allows the speaker to remain in control of the discussion.
- In feedback, exchange of information is two-way.
  - The feedback generates a dialogue in which ideas and information are shared between the giver and receiver.
- In decision making, rank, status, position, most vocal member, majority rule or pressure tactics do not influence decisions.
- Disclosure is symmetrical; one person's disclosure will be followed by another person's disclosure.
- The extent of self-disclosure can be observed as the number of reciprocal disclosures between group members.
- A person who is disclosing perceives the other to be a good listener.

**Community** - A belief that inclusivity, mutual respect for differences, and openness among people unites them in actions which simultaneously serve their personal and common interests. (adapted from Peck, 1987)

**Inclusive:** Members accept others as they are regardless of their differences (intellectual, cultural, style, etc.) Members demonstrate a willingness to co-exist.
- The listener uses nonverbals such as touch, eye contact, head nodding, leaning toward the speaker, mirroring body posture of the speaker to communicate interest and understanding.
- In giving feedback, people, whether in sender or receiver role, take more than half the responsibility for the effectiveness of communication. 
- In effective feedback the giver involves the receiver in the feedback. 
  Effective feedback frames problems as mutual problem-solving. 
  Giver of feedback presents the situation as "our problem", rather than "your problem". 
- A member in a facilitation role respects the autonomy of the person; the facilitator acknowledges the whole person in his/her relationship to the group (for example, the person's other memberships and commitments, level of development, personal qualities). 
- Leaders hold a commitment to the concept of self-directed teams.

Decisions are made by consensus, and accommodate diverse viewpoints. 
- Effective feedback takes into account the needs of both the receiver and giver of feedback. 
Both receiver and giver articulate their needs in the transmission of feedback. 
- The leader encourages group decision making and consensus. 
- The exchange of information in feedback is two-way. 
  The emphasis is on creating alternatives, not merely finding a solution.

Contemplative: Members reflect on what it is to be a team, and the purpose and values of the team. 
- The leader creates a safe environment for confronting existing ways of thinking, behaviors, or issues. 
- Team participants are able to critique behaviors, results, plans, structures, models of thought. 
  Members engage in continuous critique of quality and effectiveness. 
  Members share reservations, thoughts, feelings, expectations related to task accomplishment. 
- The feedback generates a dialogue in which ideas and information are shared between the giver and receiver.

Safe: Members engage each other without judgment, with openness, and in ways that are non-threatening to the other. 
(See "Safety") 
- Listener seeks complete understanding of the message and the speaker before evaluating. 
- In the receiver role, the person develops the intention to listen from the sender's point of view, rather than receiving the communication in terms of one's own perspective. 
- The person in the facilitator role ensures that confrontation is non-judgmental and respectful, affirming, and supportive of persons. (This has been called "care-frontation"). 
- In disclosure, the person views personal information as critical to problem solving, rather than as a tool for gaining power. 
- Effective facilitators use their authority in a selfless manner, for the good of the group and its members. The facilitator does not use authority as an outlet or forum for venting personal problems.
Laboratory for experimenting with new behaviors: Members can be observed to practice new ways of talking and acting, and experiment with new repertoires.
- The member in the facilitator role creates a climate for safe confrontation; the facilitator's way of being promotes respect, support, trust, safety; the facilitator does not confront members directly or indirectly.
- The facilitator sets up exercises in which group members confront others or themselves in small groups.
- The facilitator establishes a ground rule by which any person can assume a devil's advocate role from which to confront others.
- The facilitator makes it explicit that s/he will not confront others; all confrontation is done by group members.
- Listener demonstrates commitment to becoming an effective listener by seeking self-knowledge.
  Listener identifies perceptual filters, assumptions, predispositions.
  Listener attends to the feelings and emotions that arise within him/herself in the process of communication.
- The facilitator models self-confrontation and self-disclosure in the group.

A group that can fight gracefully: Members engage in conflict with respect, caring, listening and empathy.
- The person giving feedback separates the central issue of the feedback from the person.
- The person is sensitive to the receiver's readiness to receive feedback.
  The giver waits for anger, or other strong emotions to subside.
- The listener responds to difficult or unpleasant subject matter as challenging by encouraging full discussion.
- The listener paraphrases in order to test accuracy, demonstrate empathy for the speaker, build trust and co-create meaning.
- The listener uses the speaker's information to recall a similar personal experience or feeling, in order to empathize with the speaker.
- Effective facilitators are skilled at confrontation of issues and behaviors that are disruptive to group process and to group and personal development (issues of the 'whole' as well as the 'parts').
  The facilitator ensures that confrontation is non-judgmental and respectful, affirming, and supportive of persons. (This has been called "care-frontation".)
- Persons acknowledge the role of feelings in the sending and receiving of communications.
  They are not only tolerant of other people's feelings, and recognize that other's feelings may be different from their own, but they also expect that feelings will affect their and others' messages and interpretation of messages.

A group of all leaders: Members take the lead at the moment their gifts are needed, yield to others whose gifts are called for, and share their gifts.
- Leaders take initiative, have a personal readiness for action.
- Members can be observed to demonstrate "roving leadership" (DePree, 1989):
  Team members enable each other to use their special competences when they are needed.
Members willingly yield to the team member who is the appropriate leader in the moment.
Members recognize interdependence—whether they are contributing in a leader role or a participant role, all persons' contributions to the team's effort are interdependent and are responsible for the final results.
- Leaders teach others.
- Effective facilitators seize every opportunity to teach team members how to work together effectively and communicate effectively with each other and across the organization.

A spirit: Members feel connected to each other.
- Effective facilitators are caring towards team members.
  - The facilitator articulates values of caring and support for team members.
  - The facilitator acts in a caring way towards team members.
  - The facilitator demonstrates interest in helping others become productive group members.
  - Group members report helping behaviors on the part of the facilitator.
  - Group members perceive the facilitator as caring, empathic, warm genuine, and respectful.
- Group is characterized by a high level of trust between members.
- Members have strong liking or love for each other.

Choice- A belief in the self-determination of persons; people have the right and ability to make choices, people are seen as responsible for their choices.
- The disclosing person perceives that s/he is willing and unprovoked.
- A person who gives feedback is attentive to the receiver's request for feedback.
- A person in the facilitator role respects the right of the participants to choose when to change and grow.
- Effective facilitators of self-directed teams advocate choice making.
  - The facilitator creates a safe environment in which members can make choices and take responsibility for their choices.
  - The facilitator makes choices as one of the group members.
  - The facilitator enables choice making but does not pressure people to make choices.
  - The facilitator uses group decision making at every opportunity.
  - The facilitator directs the group in group decision making processes.
- A member in the role of facilitator negotiates or delegates the creation of team objectives and structures; the facilitator then supports the objectives and structures through his/her actions.
- Members in the role of facilitator model flexible choice making: they are capable of making appropriate choices from their repertoire relative to the area of group action and to the level of development of the group and its members.
  - The facilitator operates in the background, giving the group freedom to do things its own way and be fully responsible for its actions when members have become competent and confident.
Leaders demonstrate strong organizational and facilitation skills. The leader encourages group decision making and consensus. The leader effectively facilitates group decision making (see "facilitation"). Members together choose tasks, methods, and standards.

Leaders encourage and enhance the sharing of responsibility. The leader enables people to take actions for which they can be responsible. The leader takes responsibility for his/her own actions.
APPENDIX B

Researcher-Participant Interactions
Five activities will help me observe, understand, and document what goes on in your
team. If you agree, I need your input and help working out the details of those
activities. My questions about those details are summarized below. May we discuss
them at the next meeting?

1. WORKING IN EACH PLANT
   Purpose: Gain an understanding of the work that's done in the plant.
   Questions:
   How much time should be spent on each activity?
   Can you help set up a schedule with what you think is a good balance of
   activities?
   Do you want to pair me up with a team member?
   Please tell me when I'm in the way.

2. ATTENDING TEAM MEETINGS
   Purpose: Learn how you work together, how you make decisions, and take
   action.
   Questions:
   Could you provide me with a schedule of your team meetings?
   May I attend every week?
   Do you think it would be to my benefit to attend shift change meetings?
   How often?
   Are there other meetings that I should attend?

3. INTERVIEWING ALL TEAM MEMBERS
   Purpose: Learn from you personally, what it's like to be a member of this
   team.
   Questions:
   Would you consent to an interview?
   What is the best way to schedule the interviews? (Would it be possible to
   do these before and after shifts?)
   Is a 30-minute interview a feasible time frame for you?
   Where could the interviews be conducted?

4. ATTENDING TRAINING SESSIONS
   Purpose: A way to understand what's emphasized at Omsco and in the teams.
   Questions:
   Can you tell me more about how training takes place and what you think I
   should observe?
   Can you provide me with a schedule of training sessions that I should
   attend?

5. REVIEWING DOCUMENTS (for example: newsletters, memos, policies, logs, meeting
   minutes, bulletin board postings, etc.)
   Purpose: Understand more about the way things are done, company and group
   procedures, the way things get communicated.
   Questions:
   May I have permission to review this written information?
   How would I go about getting present and future documents from you?
Other questions:

Verifying accuracy of documentation through cross-checks.
What is your preference regarding the use of tape-recorders in meetings and interviews?
Would you be willing to periodically review written observation to see if it represents what has been going on?

Team input:
What other activities would you suggest I participate in?
What things would you like me to observe, and possibly give feedback on?
Interview Guide

Protocol:
Thank the person for agreeing to the interview, then say to each person: "May I have your permission to tape-record this interview?" then,
"The purpose of our talking today is to learn more about what goes on in the work teams...hear your stories about what it's like to be a team member, especially what it was like getting started as a team and what it's like to work in your team.
Information collected in the course of these interviews will be used in any written documents generated from this study, but that information will be verified by you before the final product is complete.
Information you share will be coded to protect your anonymity, unless you choose otherwise. If you wish to share something and keep it off the record you may do so. If at anytime you do not want to answer a question, simply say you prefer not to answer.
We will keep to the 30 minute time limit, but if you wish to talk longer than that, we can keep going."

Getting there - (Events) - What happened as teams were being implemented?

Triggers - Talk... environment... expectations about working in teams... leading up to your decision
When you knew that this was something you wanted to do, what was it that told you "that's right"? ...How did you feel? / What did you think?

Organizational context

Team processes - Please talk about how the team functions/operates:
Learning/teaching... decisions ... how decide who leads... effectiveness...

Team experience - Please tell me about a time when the team made a decision and then took action on that decision.

Synergy - Can you recall a particular incident when the team was really humming/in the flow/working well together? Please tell me about that experience. What was that like for you?
What's your theory about the way the team works together?

Personal values and goals - What's most important to you as a member of this team? most important personal outcome...unacceptable...team goals & personal goals...

Learnings - What has been your most notable learning since you began working in teams?

What do you need? (as a team)

What else? What would you like to talk about that didn't come up here? What should I have asked you?
Closing Questions

April 21, 1993

Dear team member:

I want to thank you for sharing your stories, your time, and your team with me the past three months. Not only have I learned a tremendous amount from you, but I have sincerely enjoyed being inside the team. You have really helped me through a very important part of my work.

As I begin to sort through all of my tapes and notes, I would like to ask you to share a few closing comments. Would you please take the time in the next week to answer the questions on the next page, then mail it in the enclosed envelope? Your participation in this, of course, is voluntary; it is also anonymous, unless you wish to sign your name.

One thing that I want to be sure of is that, when I report back to you later, I am giving you information that is useful to the team. Your input, particularly on question 3, will help me do that.

Thanks,

Donna Varner
Please answer the following questions and return them in the enclosed envelope. (Use the back of this sheet, or extra paper, if you need more space.)

1) Please share any thoughts or feelings you have about what was it like to have an outsider present--in meetings, in the plant, following you around, etc.

2) You may have thought of other concerns, events, information that you would have liked to have talked about in your interview, or you may have things that you would prefer to say privately and anonymously. Please use this space for anything else you would like to say.

3) As I sort through tapes and notes, what kind of information or feedback would most help the team?
Dear Plant B Team Members:

I'd like to ask for your help in checking the accuracy of some of the information I've collected from you.

In the attached report you'll find compiled responses to the questions that you were asked in your interviews. This is not a final report, but rather one way of looking at what you said as a group at a particular moment in history. These are not conclusions; the purpose of giving you this report is to get feedback from you—to see if what I heard is what you said—and to get your permission to include this information in the final report.

Please tell me if I have told your stories accurately:
- Is what is represented here really what went on?
- Have I fairly conveyed your point of view?
- What's inaccurate? What's missing? What is really important?
- How would you interpret what you see here?

What (if anything) should remain confidential within the team; that is, should not be shared with those outside the team?

Please take time this week to read this and to make corrections, additions, changes and comments. Write directly on this copy, and return it to me in the attached envelope by Saturday, June 26.

You are the only ones who can tell me if I have accurately portrayed what the team is about. I really appreciate your time and effort in doing this, and hope you find some of this as fascinating as I did!

Thanks,

Donna
REFERENCES


