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INTRODUCTION

Organizations are increasingly structuring work around autonomous, semi-autonomous, and self-directed work teams (Cascio, 1995; Hackman, 1990; Lawler, 1986; Manz & Sims, 1993). This increased interest in work teams creates a need for advice on how to actually implement them. The present chapter reviews theories from two major areas of literature to derive implementation advice. The first area is organizational behavior (OB), where theories have identified critical variables, processes, and factors that influence work team effectiveness. The other area is organizational development (OD), where theories have focused on the processes and strategies for implementing organizational changes. We view these two areas of literature as complementary, and considering them together provides insight into how to effectively implement work teams.

In order to integrate these perspectives, we first summarize and integrate the major OB theories and any implementation advice they offer. Next, we discuss OD theories and summarize them by means of a meta-OD model. Based on an integration of the OB and OD literatures (see summary sections at the end of each section), a stage model of work team implementation is developed which identifies the relevant organizational behavior factors at each of six organizational development stages. Following this, implementation milestones and themes are drawn from extant literature which outline critical issues relevant to each stage and describe overriding characteristics of implementation efforts.

ORGANIZATIONAL BEHAVIOR

Organizational behavior has traditionally been concerned with the behavior of individuals and groups in formal organizations. A number of recent organizational behavior theories and models focusing on work teams have been presented in the literature (for an overview, see Guzzo & Shea, 1992). The theories have generally identified a range of factors relevant to team effectiveness, provided a discussion of the interrelationships among the factors, and specified potential moderators of the factors. In addition, they have occasionally discussed some practical recommendations for implementation of work teams. This section reviews a number of these theories (e.g., Campion, Medsker, & Higgs, 1993; Campion, Papper, & Medsker, 1996; Gladstein, 1984; Goodman, Ravlin, & Schminke, 1987; Hackman, 1987; Hackman & Morris, 1975; Kolodny & Kiggundu, 1980; Pearce & Ravlin, 1987; Shea & Guzzo, 1987; Sundstrom & Altman, 1989; Sundstrom, De Meuse, & Futrell, 1990; Tannenbaum, Beard, & Salas, 1992).

IMPLEMENTING WORK TEAMS: RECOMMENDATIONS FROM ORGANIZATIONAL BEHAVIOR AND DEVELOPMENT THEORIES

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ABSTRACT

As more organizations become interested in the benefits of work teams, there is a need for advice on actually implementing teams in organizations. The present chapter reviews theories in organizational behavior and organizational development in order to derive implementation recommendations. These two bodies of literature are viewed as complementary, with organizational behavior focusing on how to structure work teams to be effective, and organizational development specializing in how to successfully make major organizational changes. The various theoretical tenets of each area of literature are first outlined, followed by an integrative summary of their major components. This forms the foundation for the development of a stage model of work team implementation which identifies relevant organizational behavior factors at each of

These theories were selected for several reasons. First, they tend to focus on different sets of factors and outline different interrelationships among them. Second, they represent the state of the art in team effectiveness theory and research. Third, they provide a comprehensive set of factors that can be meaningfully integrated and applied to team implementation. In our review, we identify the approach taken by the theory, outline the factors or components of the theory, and then discuss their recommendations for implementation. A general summary of the OB work team theories follows the review.

Social-Psychological Approaches

Hackman and Morris: Interaction Processes

With their roots in social psychology, Hackman and Morris (1975) forwarded one of the more complete and influential models of work group effectiveness. Adapting an input-process-output model from McGrath (1964), Hackman and Morris suggest that the group interaction process mediates the influence of individual-level (e.g., member knowledge, skills, and abilities [KSAs]), as well as attitudes and personality characteristics), group-level (e.g., structure, level of cohesiveness, and group size), and organizational-level variables (e.g., task characteristics, reward structures, and environmental stress) on group effectiveness, where interaction process refers to “all observable interpersonal behavior that occurs between two arbitrary points in time” (p. 49).

Unfortunately, exactly how interaction process mediates input-performance relationships is unclear. In an attempt to address this, Hackman and Morris (1975) outline three “summary” variables: *member effort*, *task performance strategies*, and group member *knowledge and skills*. These variables provide a way of understanding how input and process factors influence group outcomes, as well as identifying possible points of leverage in influencing group performance. This model also suggests that aspects of the task will dictate the extent to which the summary variables are important for task performance. For example, routine tasks may depend less on knowledge and skill and more on member effort.

The summary variables are influenced by the interaction process and the input variables, as well as feeding back into the interaction process itself (see Hackman & Morris, 1975, p. 88, fig. 5). With respect to how group interaction impacts the summary variables, member effort is affected through the coordination and motivation of member efforts; task performance strategies are impacted through the implementation of preexisting strategies or the generation of new strategies; and knowledge and skill is influenced through assessment and weighting of individual member contributions or creating conditions to increase the knowledge or skill of group members.

Three input factors (group norms, group task design, and group composition) also influence the summary variables, as well as group interaction. The first of

these input factors is group norms about task performance strategies. That is, groups typically have an implicit understanding about how things should be done, and they tend to approach tasks without explicitly considering their performance strategy. This can negatively influence group effectiveness if the norms that direct the selection and use of performance strategies are not appropriate to the task. As a result, Hackman and Morris (1975) suggest that groups must be ready to reconsider their performance strategies when the existing norms appear to be less than ideal for a given task. This can be accomplished in three ways: diagnosis-feedback, process consultation, and task redesign.

The summary variable of member effort is also influenced by group norms. Whether a norm comes to exist for high versus low effort depends on the quality of job-related experiences, which are most proximally controlled by task characteristics. Thus, increases in individual motivation are most easily influenced through group task design.

The final summary variable, member knowledge and skill, is most directly influenced by selection of team members and assignment of those with appropriate knowledge and skill to the group. There are factors beyond selection, however, which can positively influence group effectiveness. This can most readily be accomplished through a long-term program of team building, where a climate of trust is developed. Thus, creation of a supportive climate can result in a group more resistant to the stress, anxiety, and ambiguity which often accompanies the risk-taking and experimentation associated with individual skill development.

Hackman: Normative Model of Group Effectiveness

Hackman (1987) more fully develops the principles outlined in Hackman and Morris (1975) to create a normative model of group effectiveness. This model assumes that the effectiveness of organizational work groups is a joint function of (1) “the level of *effort* group members collectively expend carrying out task work,” (2) “the amount of *knowledge and skill*” members bring to bear on the group task,” and (3) “the appropriateness to the task of the *performance strategies* used by the group in its work” (Hackman, 1987, p. 323). This is referred to as the “process criteria of effectiveness” and represents what Hackman and Morris termed “summary variables.” The influence of the process criteria on group effectiveness, in turn, is moderated by the material resources available to the group.

Hackman suggests that three kinds of variables can influence the process criteria: (1) the design of the group, (2) the organizational context of the group, and (3) group synergy that results from members’ interactions. These factors, if managed appropriately, can elicit task-effective group processes. Briefly, group design can influence the process criteria through task structure, group composition, and appropriate norms about the performance process. The organizational context can support and reinforce competent task work through its reward, education, and information systems. Group synergy acts as a moderator between group design,

organizational context, and the process criteria of effectiveness. As such, it "tunes the impact of design and contextual factors" (Hackman, 1987, p. 332). Synergy can help the group avoid performance-inhibiting interaction processes and create performance-enhancing interaction processes; alternately, it can prevent the group from taking advantage of positive performance conditions.

Working from this model, Hackman (1987) identifies four stages in creating and developing work groups, and notes a variety of issues that must be addressed at each stage. The first stage, *prework*, involves determining the appropriateness of using a group to accomplish a particular task as well as defining basic situational parameters. This stage entails determining what the task is, what the demands of the task are, how the group will be led and designed, and the feasibility and usefulness of creating a group to accomplish the task. The key question in this stage focuses on: Is the work which needs to be done most appropriately done by a group?

The second stage concerns *creating the necessary performance conditions* through design and organizational context mechanisms. Two issues in this stage concern how the group should be composed and how the tasks should be structured, as well as the necessary resources the group will require. Key questions in this stage are: What knowledge, skills, and abilities do group members need in order to do the work? What resources will they need to do the work?

The third stage involves *forming and building* the team. This stage is concerned with helping the team get off to a good start. Three key activities are identified in this stage. First, the group must have defined internal boundaries. That is, they must be identifiable as a distinct organizational unit. Second, as the group works, it will redefine its tasks. This is expected and must be explicitly acknowledged. Once all parties agree and accept this redefinition, the process of task design is largely complete. Finally, explicit attention needs to be given to group norms concerning performance strategies and roles early in the group's life. Important questions in this stage include: What will the group boundaries be? Where do the group's authority and responsibility lie? What can the group change and not change about its tasks?

The final stage involves *providing ongoing assistance* to the group. This is a primary duty of managers, since they can provide the kind of input that can positively impact work group effectiveness. First, managers can help provide opportunities to redefine work group design and context as the group encounters unfavorable performance conditions. Second, managers can provide process assistance that directly relates to task work, particularly in terms of minimizing process losses and working through developmental transitions. Finally, managers can help the group learn from its experiences. The key question in this stage is: Do managers possess the appropriate KSAs to help the group overcome difficulties, help in task redefinition, provide effective process assistance, and help the team learn from its experience?

These stages are important from an implementation perspective since they highlight a number of issues important for effectiveness as teams are created and developed. Hackman (1990) provides some validation for this approach in a series of case studies in different team settings ranging from string quartets to airline cockpit crews. These studies documented differing effectiveness levels of teams and tied their effectiveness to aspects of the tasks, to the social norms and practices in the teams, and to ongoing managerial assistance.

Sociotechnical Approaches

Starting in the 1950s, a new approach to understanding work behavior was put forward (e.g., Trist & Bamforth, 1951). The sociotechnical approach, as it has come to be called, suggests organizations contain interrelated technical and social systems and effectiveness results from joint optimization of these aspects (Pearce & Ravlin, 1987). In reviewing models of work team effectiveness based on this perspective, we focus on those outlined by Kolodny and Kiggundu (1980) and Pearce and Ravlin (1987) since they represent current perspectives and summarize the major tenets of a sociotechnical approach. Each of these models will be considered in turn.

Kolodny and Kiggundu: Dynamic Interactions

Kolodny and Kiggundu (1980) identified six factors as being related to work team effectiveness. First, *organizational arrangements* involve the structure of work within a production phase. These include such factors as the number of shifts, scheduling, shift rotation patterns, and the way machinery is utilized. Second, *technical skills* refer to general employee competence and skill in carrying out technical tasks. Third, *task conditions* refer to the degree of task environment variability and uncertainty due to physical and atmospheric conditions. Fourth, *group interaction* refers to interaction within work teams as well as interaction between the team and other organizational units. Fifth, *group characteristics* concern the demographic and social background of group members, as well as their previous work experience and more task-specific experience. Sixth, *leadership and supervision* refers to formal and informal forms of influence, including technical and social skills of group leadership, the relationship to the larger organization, and the quality of leadership within and across organizational units.

These factors also interact with one another and have two distinct influences on group performance. The first is a process influence, which is a proactive effort aimed at eliciting desired behavior. This is manifested in the interrelationship between various factors, including leadership and supervision, group interaction, and technical skills factors. In dynamic environments, both technical and social support systems are necessary to maintain positive performance, attitudes, and morale. Creating a climate of cooperation, maintaining communication channels,

and being aware of team cohesion (or lack thereof) are all necessary leadership functions and interrelate with aspects of group interaction and the technical skills possessed by employees.

The second influence is structural in form and concerns setting boundaries and delimiting the range of allowable behaviors. Leadership and organizational arrangements interact to create a structural influence on behavior. The focus is primarily on such organizational arrangements as outcome interdependence and the actual working arrangements (e.g., segregation by living quarters, transportation to and from the work site). While outcome interdependence can strengthen team cohesiveness, other structural factors may reduce team cohesiveness. Leadership and supervision can minimize the negative influence of organizational arrangements through actions which communicate commitment to a better work climate.

By explicitly considering interactions among factors, Kolodny and Kiggundu (1980) demonstrate how team effectiveness can be influenced in dynamic environments. This is particularly important when implementing work teams since a number of interdependent factors determine implementation success. Their account offers insight into this complex interplay.

Pearce and Ravlin: Self-Regulating Work Groups

In reviewing research on self-regulating work groups (SRWG), Pearce and Ravlin (1987) identify four factors that are related to positive team outcomes. First, *preconditions* concern the kinds of circumstances that must exist for the organization to successfully implement teams. Task conditions must allow autonomy to make decisions and provide the necessary information to make decisions. The task must be meaningful at the team level. Organizational conditions must be such that management is supportive of the program, and expectations of program outcomes must be well defined and appropriate given the scope of the implementation. Finally, the personnel involved in the implementation must accept the basic premises of SRWGs and view autonomy as a positive outcome of implementation. These preconditions, in turn, influence the design features of the group.

Second, *work group design* should encourage open communication, heterogeneous membership, minimal status differences, flexible coordination, autonomy over task assignments, and group and individual rewards. Third, *activation* involves introducing structures to facilitate the institutionalization of the SRWGs. That is, activation involves ensuring publicized external support of the implementation, team member training, providing incentives for norm violation or process discussion, and explicitly acknowledging the stages of group development.

These design and activation features influence one another as well as directly influencing the fourth *process criteria* factor. Composed of three elements, these are similar in operation to Hackman's (1987) process criteria of effectiveness, although there are some differences. First, variety refers to member responses to uncertainty and change. Second, coordination refers to the group's ability to effec-

tively integrate variety into a meaningful output. Third, commitment concerns appropriate goal motivation. The design and activation features can be managed in such a way as to produce these process criteria which, in turn, lead to the effectiveness criteria.

Finally, Pearce and Ravlin (1987) reiterate four broad implementation recommendations for self-regulated work groups identified by the Tavistock Institute. They are: (1) the group should be collectively responsible for a substantial but manageable piece of the business, (2) the arrangement of work should facilitate social relationships that foster cooperative interaction, (3) employees should have the opportunity to learn all jobs included within an organizational segment, and (4) the groups should have the authority, materials, and equipment necessary to perform their jobs and the feedback required to evaluate their performance (p. 755).

Ecological Approaches

The importance of team boundaries has been noted by Sundstrom and Altman (1989) and Sundstrom, De Meuse, and Futrell (1990) in their ecological approach to work team effectiveness. Central to this approach is an examination of the role of the physical environment. The primary function of an ecological analysis of work groups is "to describe their operations within the context of the larger systems in which they are embedded" (Sundstrom & Altman, 1989, p. 177).

Sundstrom and Altman use the group-organization boundary to describe the relationship between a work team and the larger organizational context. They suggest that work group effectiveness is a joint function of the group-organization boundary, environmental support for boundary management, and territorial control over physical facilities. The group-organization boundary is conceptualized as the relationship between the group and organizational context. Environmental support for boundary management refers to resources provided by the physical facilities in terms of meeting boundary management demands. Territorial control refers to the group's ability to control activities in its area as well as the flow of information, goods, or people.

Described in terms of integration and differentiation (Lawrence & Lorsch, 1969), boundary management contributes to team effectiveness by facilitating external relations and internal processes (e.g., interaction, development of identity, and cohesion). Physical features and territorial control are also important resources for managing group-organization boundaries. The overriding importance of boundary management is reflected in the general hypothesis that "groups function most effectively when their territorial control and environmental support match the demands for boundary management inherent in their integration vs. differentiation in the organization" (Sundstrom & Altman, 1989, p.184).

More fully explicating the implications of these principles for work teams, Sundstrom, De Meuse, and Futrell (1990) outline a framework of work team effectiveness that posits that effectiveness is dynamically interrelated with three fac-

tors: (1) organizational context, (2) boundaries, and (3) team development. This framework does not specify causal and temporal dynamics, instead suggesting that "team effectiveness is more of a process than an end state" (p. 122). Thus, these factors are assumed to be reciprocally interdependent, such that each exerts an influence on the other in an iterative fashion over time (see Sundstrom et al., 1990, p. 122, fig. 1).

The first factor concerns the *organizational context*. It is composed of eight elements: organizational culture, task design and technology, mission clarity, autonomy, performance feedback, rewards and recognition, training and consultation, and the physical environment. The second factor, *boundaries*, refers to work team differentiation and external integration. It primarily concerns the internal and external boundaries of the team and highlights the relative importance of these two components, contingent upon task demands. Finally, *team development* refers to interpersonal processes, norms, roles, and cohesion. As groups work together and develop over time, they tend to develop certain patterns of interaction, although the exact developmental sequence is unclear.

An additional contribution of Sundstrom and Altman's (1989) work is their development of four categories of work team applications: (1) advice and involvement, (2) production and service, (3) projects and development, and (4) action and negotiation. While incomplete, this taxonomy is nonetheless important since it helps us better understand the requirements of different teams. These differences offer insight into when a particular component of the framework or a constellation of components is critical to work team effectiveness. This, in turn, informs work team implementation. As Sundstrom, De Meuse, and Futrell's (1990) framework makes clear, a team's task requirements are critical factors in understanding team effectiveness.

Human Resource Approaches

Shea and Guzzo (1987) take an altogether different approach to work team effectiveness by focusing on human resource management issues. In so doing, they abandon the input-process-output model so prevalent in the literature. They suggest that three factors, (1) task interdependence, (2) outcome interdependence, and (3) potency, interact to influence group effectiveness. *Task interdependence* refers to "the degree of task-driven interaction among group members" (Shea & Guzzo, 1987, p. 331). It has two indirect influences on group effectiveness, first by moderating the relationship between outcome interdependence and group effectiveness, and second through its effect on potency. *Outcome interdependence* refers to consequences shared by group members (e.g., pay, recognition) which, in turn, depend on the extent to which the group satisfies its mission. Outcome interdependence directly influences effectiveness as well as exerting an influence on task interdependence. *Potency* refers to "the collective belief of a group that it can be effective" (Shea & Guzzo, 1987, p. 335). This belief is influenced by a number

of organizational factors as well as feedback from the group's task performance. They hypothesize that potency has a direct influence on group effectiveness.

These factors are influenced by the larger organizational environment, but only indirectly. Factors such as technology, organizational systems, and distal organizational factors (such as culture) influence group effectiveness, but only through these three components. Thus, task and outcome interdependence as well as potency are the proximal causes of group effectiveness.

Shea and Guzzo also note a number of implications of their model for designing groups. For one, groups must have "clarity of charter." That is, the internal boundaries of the group must be clear and distinct. In short, the group must be identified as a distinct entity and be given clear goals that provide direction, but not so much that autonomy is restricted.

Another key design issue is task interdependence. At the group's inception, some consideration must be given to the level of task interdependence appropriate to the group and its task. While it is important not to micromanage the group, some boundaries should be established at the outset. Outcome interdependence is also important, since it is what (proximally) compels the group to work together. Consideration must be given to formal outcomes such as pay, as well as having an appropriate match between task interdependence and outcome interdependence. For example, if there is high task interdependence, it is unwise to competitively distribute rewards.

The final design issue concerns making certain the group has adequate resources with which to complete its assigned tasks. If the group lacks resources, it is likely to experience low potency. Examples of resources include task skills, time, money, and access to management.

Technological Approaches

While Shea and Guzzo (1987) suggest organizational variables such as technology influence teams indirectly, other researchers have suggested more direct links. As part of a continuing research interest in technology and group processes, Goodman, Ravlin, and Schminke (1987) adopt an approach that differs from other team researchers. Instead of specifying a model of group effectiveness, they identify critical assumptions regarding groups and influences on their effectiveness in terms of three factors: (1) technology, (2) cohesiveness, and (3) norms.

Technology is defined as a "system of components directly involved in acting on and/or changing an object from one state to another" (Goodman et al., 1987, p. 143) and is thought to have a large effect on group performance. They suggest most models of effectiveness overstate the influence of human variables at the expense of technological and organizational-level variables. That is, these technological variables can have a direct impact on group performance. In fact, in certain conditions, social psychological variables may have little impact on group performance.

Cohesiveness is defined as the commitment of members to the group task. Key to this definition is that it focuses on the decision of group members to produce an output. As such, it differs from previous conceptualizations which focus on the attraction of members to the group. Goodman, Ravlin, and Schminke (1987) suggest that cohesiveness and group effectiveness are not necessarily linked. Instead, the impact of cohesiveness must be considered in the context of other factors such as technology or task configurations. That is, while members may be committed to the task, other factors may ultimately determine the group's effectiveness.

Norms are traditionally defined as a set of expected behaviors, held, accepted, and enforced by group members. Goodman, Ravlin, and Schminke (1987) broadened this conceptualization to include norm distribution, enforcement, and transmission. They go on to outline a typology of norms that clarifies the link between norms and effectiveness. This includes norms regarding the production process, informal social arrangements, and the allocation of resources. Finally, they suggest that the type of group will determine types of norms and their relationship to group effectiveness.

Integrative Approaches

The final models of work team effectiveness to be reviewed borrow from many of the approaches previously discussed. They integrate variables from previous models into more encompassing models of work team effectiveness. What sets these approaches apart is the fact that they have been tested in organizational settings using team effectiveness as the outcome measure.

Gladstein: Composition, Structure, Resources, and Process

Integrating existing psychological and organizational theory, Gladstein (1984) tested a number of input, process, and output constructs thought to be related to team effectiveness. Inputs included group composition (e.g., skills, heterogeneity, and tenure), group structure (e.g., role clarity, norms, size, and leadership), available resources (e.g., training and markets served), and organizational structure (e.g., rewards and supervisory control). Process included communication, supportiveness, degree of conflict, and boundary management. Group effectiveness included both performance and member satisfaction. The group task (e.g., complexity, uncertainty, and interdependence) was thought to moderate group process and effectiveness.

Data were collected from 326 marketing employees in 100 work teams. Team characteristics measures were based on questionnaires, while team effectiveness measures were based on both questionnaires and organizational sales records. Results supported relationships with questionnaire-based effectiveness measures but not archival sales records. Also, the empirical factor structure of the model was less dimensionalized than the theoretical model.

This research is important for several reasons. First, some empirical support was generated for a model of work group effectiveness. Second, it considered intra-group process as a unitary factor instead of separate task and relationship factors, as traditionally done. Relatedly, it included boundary management as an important component of group process. This research is also important because it included such exogenous constructs as group composition, available resources, organizational structure, and group task. Finally, it explicitly considered how the task may moderate the process-effectiveness relationship.

Campion, Medsker, and Higgs: Work Team Design

Another integrative OB model was forwarded by Campion, Medsker, and Higgs (1993). The goal of this research was to develop work team design recommendations which would enhance the likelihood of team effectiveness. The conceptual framework was based on a review of several literatures that addressed the topic of work groups or teams, including social psychology, sociotechnical theory, industrial engineering, and organizational psychology. Based on this review and the models of work group effectiveness proposed by Gladstein (1984), Guzzo and Shea (1992), Hackman (1987), and Tannenbaum, Beard, and Salas (1992), a hybrid conceptual framework was derived consisting of five themes that represented summaries of the key components of previous theories. Nineteen design characteristics were derived and used to operationalize the themes.

The *job design* theme reflected the recommendations from theories and research on how to design motivational jobs (Campion & Thayer, 1985), including recommendations for self-management, participation, task variety, task significance, and task identity. The *interdependence* theme came from the work of Guzzo and Shea (1992; Shea & Guzzo, 1987) and included recommendations for task interdependence, goal interdependence, and interdependent feedback and rewards. The *composition* theme reflected the collection of advice that has emerged on how teams should be staffed and included recommendations for heterogeneity, flexibility, relative size, and preferences for group work. The *context* theme considered the resources and contextual influences needed to make the team effective and included recommendations for training, managerial support, and communication and cooperation between groups. Finally, the *process* theme reflected those things that go on in the team, including potency, social support, workload sharing, and communication and cooperation within the group.

Two studies were conducted to evaluate the model of effectiveness. First, Campion, Medsker, and Higgs (1993) assessed the 19 design recommendations by questionnaires; effectiveness criteria included productivity, employee satisfaction, and manager judgments. Data were collected from 391 employees, 70 managers, and archival records for 80 work groups in a financial organization. Results largely supported the independence of the 19 characteristics. Results also showed that all three effectiveness criteria were predicted by the characteristics, and nearly all

characteristics predicted some of the effectiveness criteria. The job design and process themes were slightly more predictive than the interdependence, composition, and context themes.

The second study (Campion, Papper, & Medsker, 1996) replicated this research with professional knowledge worker jobs, as opposed to nonexempt administrative jobs in the first study. Data were collected from 357 employees, 93 managers, and archival records for 60 teams in the same company. Team characteristics were again measured with questionnaires completed by employees and managers, but the effectiveness measures were immediate manager judgments at two points in time, senior and peer manager judgments, employee judgments, and archival records of employee satisfaction and performance appraisals. Results were highly similar to previous findings in that most team characteristics were related to most effectiveness criteria. Relationships were strongest for the process characteristics, followed in order by the job design, context, interdependence, and other characteristics.

Tannenbaum, Beard, and Salas: Input, Throughput, Output

A final integrative model was proposed by Tannenbaum, Beard, and Salas (1992). Although this model was not empirically validated, their summary of organizational behavior theories or models is perhaps the most comprehensive, and offers a useful heuristic for conceptualizing factors that influence work team effectiveness.

An extensive set of variables was organized into a broad framework composed of inputs, throughputs, and outputs. Inputs include individual, team, and task characteristics as well as work structure. Throughput factors represent the "manager in which the team interacts over a period of time" (Tannenbaum et al., 1992, p. 122) and include such team processes as coordination, communication, and boundary management. Outputs include individual and team changes, as well as performance indices. Organizational and situational characteristics influence inputs, throughputs, and outputs. As such, they impact all aspects of a group's functioning.

Summary of Organizational Behavior Theories of Work Team Effectiveness

Our approach to summarizing this literature shares much in common with previous studies, although there are a number of differences as well. We first identify broad factors that have been forwarded as important for team effectiveness. Next, we discuss what can be described as contingency factors, that is, those factors which can serve to limit work team effectiveness. Table 1 provides our summary in terms of a list of factors which influence work team effectiveness.

Table 1. Summary of Organizational Behavior Theories of Work Team Effectiveness

1. Contextual factors
Culture and climate
Training and education systems
Reward and information systems
2. Structural factors
Physical environment
Organizational arrangements
Technological systems
3. Team design factors
Work design
Task interdependence
Composition
Leadership
4. Process factors
Boundary management
Task cohesion
Performance norms
Communication
Potency
5. Contingency factors
Team application/mission
Resource availability

Contextual Factors

These are factors which are part of the work environment that are often amenable to change by the organization. Examples of these factors include organizational culture/climate, training, education, reward, and information systems. They typically influence work team performance by creating a work environment that is conducive to work team effectiveness. For example, organizations which have reward systems that create outcome interdependence are likely to increase group motivation.

Structural Factors

These are more macro factors which comprise the organization's internal environment. Unlike contextual factors, these factors are often not amenable to change (unless teams are implemented in a greenfield site) and, therefore, represent potential barriers or constraints to effective performance. Examples include the physical environment, organizational arrangements, and technological systems.

Team Design

These are the work team design factors that impact team effectiveness. Thus, the manner in which the work is designed, the degree of interdependence required of the team members, the composition of the group in terms of member KSAs, and decisions regarding team leadership all influence the subsequent effectiveness of the team.

Process Features

These define interaction process in the broadest sense. They include boundary management, task cohesion, performance norms, communication, and potency as important considerations when implementing work teams to enhance effectiveness.

Contingency Factors

These represent aspects of the work environment that may limit the effectiveness of many of the factors outlined above. One example is resource availability. If the group lacks adequate resources, team effectiveness is likely to be poor, regardless of the team's standing on the other effectiveness factors. Another contingency factor revolves around task characteristics, since they may moderate other relationships with effectiveness. For example, task type, complexity, and uncertainty have all been forwarded as examples of task characteristics which may moderate team effectiveness. Explicit consideration of these issues becomes crucial as one attempts to provide implementation advice for different kinds of work teams.

In order to address this issue, differences in group tasks need to be summarized in a more meaningful fashion. One way to accomplish this is to focus on the specific work team application or mission (i.e., purpose). Sundstrom, De Meuse, and Futrell (1990) provide a starting point for such a taxonomy of differences with their distinction between advice and involvement, production and service, project and development, and action and negotiation teams. It seems likely that the team application/mission and the host of factors related to this mission (e.g., duration, external dependence, task type, autonomy) can serve as a useful guide for thinking about teams and the conditions under which effectiveness factors may be more or less relevant.

ORGANIZATIONAL DEVELOPMENT

Organizational development (OD) is a collection of theories, values, and techniques for bringing planned change to organizations. Many organizational devel-

opment models can be viewed as being composed of two general types: change process and implementation (Porras & Robertson, 1987, 1992). Change process theories specify the underlying dynamics of the organizational change in terms of relevant variables, outcomes, and causal processes that occur during the OD intervention. Implementation theories, however, focus on the actions or steps taken by a change agent when intervening in an organization and many of the factors influencing OD effectiveness. Change process theories can be viewed as focusing on the content components of organizational change, while implementation theories focus on the processes of change. Because team implementation is a key interest in this chapter, more attention is paid to implementation theories.

Change Process Theories

Porras and Robertson (1987, 1992) identified several change process theories which specify the form and structure that exist among important OD constructs. More specifically, they identified four types of variables that define the respective theories. They are referred to as target, manipulable, mediator, and moderator variables. For our purposes, we highlight those theories and variables necessary to convey an understanding of the form these theories take and how change process theories operate. As such, this should not be considered a comprehensive review. The reader is referred to Porras and Robertson for a more complete discussion.

Cartwright: Group Dynamics and Change

Cartwright (1951) draws from group dynamics theory in discussing how to produce individual change. More specifically, he suggests that many individual behaviors, attitudes, beliefs, and values are influenced or governed by an individual's team membership. As such, change requires team-focused interventions. Further, teams can be used as the medium of change or the target of change. That is, teams exert certain pressures that influence individual behavior or they are the target of change such that by changing certain aspects of the team (e.g., leadership, standards), individual behavior is changed.

According to Cartwright (1951), a number of factors are important when teams are used to influence individual behavior. First, there must be a strong sense of cohesiveness in the team to provide a basis for influence. Second, the change effort must be related in some way to the team's purpose. Third, high status team members tend to exert greater influence. Finally, the efficacy of a change effort is moderated by the degree to which the change is similar to existing team norms.

When targeting the team itself for change, there are a number of strategies that can be employed. Pressure for change in the teams can be created by developing a shared perception of the need for change. One way to accomplish this is to involve the teams in the process so they can recognize for themselves the need for change. Change can also be facilitated by improving communication between

team members, or more specifically, sharing information concerning the need for change, plans for change, and the consequences of change. Finally, Cartwright suggests that interdependencies among teams can result in tension among them if one subgroup is altered and others are not. As such, attention should be placed not only on the focal target of change but also on others who work with and around the change target.

Survey Feedback Approaches

Survey feedback as an intervention is usually associated with the work of Likert (1961). French and Bell (1984) provide a comprehensive discussion of the technique and the reader is directed to it for additional information. Miles and colleagues (1969) outline a general model that details the process through which survey feedback can result in organizational change. Survey feedback is composed of data presentation, group meetings, and interaction process analysis. The presentation of objective data can corroborate feelings, disconfirm feelings, or encourage inquiry so that individuals attempt to understand the causes of the data. If these things occur, individuals tend to have a greater acceptance of the data. This, in turn, can lead to concrete changes.

As one component of the survey feedback model, group meetings can result in several outcomes. If meetings result in experiences of success, individuals will be more attracted to group events. Members are also likely to evaluate their work positively if they feel responsible and in charge of the meetings. Finally, meetings are likely to result in increased work-team interaction, which can produce three additional effects: (1) increased liking among interacting individuals, (2) pressures for clarification of one's position on an issue, and (3) conformity pressures.

House: Management Development

House (1967), in a precursor to his later work on leadership (e.g., House, 1971), typifies the management development process as an attempt to influence managerial effectiveness by considering both the individual and environment and its impact on individual learning. To this end, he suggests OD is centered around increasing knowledge, skills, and performance and positively influencing attitudes. Five conditions for development are identified which specify the factors required to produce organizational change: (1) participant characteristics, (2) learning effort, (3) leadership climate, (4) organizational climate, and (5) organizational culture. The relevance of these development conditions is as follows.

In order for a change in knowledge to occur, the individual must have sufficient ability and motivation, and the method of instruction must be appropriate and competently presented. To change attitudes, individuals must have flexible attitudes and agree with the spirit of the material to be learned; on-the-job applications and personal benefits must be discussed; the individual's superior must have

a neutral or positive attitude toward development; the goals, top management philosophy, and policies must be congruent with learning; and cultural conditions must be consistent with desired attitude change. To change ability, individuals must not possess conflicting habits or personality traits, they must practice the desired abilities and undergo corrective training, and the superior's attitude must be consistent with desired change. Finally, for a change in job performance to occur, individuals must have the opportunity for on-the-job practice of newly acquired abilities; receive coaching, counseling, and appropriate performance reviews from superiors; perceive alignment of top management philosophy and practices with desired performance; see top management support of development; have appropriately designed incentive systems; have group norms consistent with desired change; and have positive employee and group attitudes toward the desired change.

Goodman and Dean: Institutionalization of Change

Goodman and Dean's (1982) process model of institutionalization is concerned with the persistence of organizational change following program introduction. They suggest that five facets account for the degree of institutionalization of organizational change, where institutionalization is defined in terms of acts or behaviors. First, *knowledge of behavior* concerns whether or not the individual knows enough about the behavior to perform it. This also includes awareness of the likely behavioral outcomes. The credibility and trustworthiness of the communicator, the content of the communication, and the relationship between the content and the receiver's prior experiences, attitudes, and beliefs all influence the degree to which individuals will have knowledge of the behavior.

Second, *performance of behavior* refers to the extent to which behavior is performed by individuals in a social system. The decision to perform is related to three conditions. The individual must (1) believe that he or she can perform the behavior, (2) perceive there is a relationship or contingency between performance and outcomes, and (3) find the rewards attractive. Third, *preference for the behavior* concerns whether or not individuals like or dislike performing the behavior. If the individual prefers the behavior, he or she is likely to continue to engage in the behavior. This continuance decision is influenced by both a congruence between expected and actual outcomes, as well as the level of commitment to the new behavior. Fourth, *normative consensus* concerns the extent to which individuals are aware that others are performing the required behaviors and the degree of consensus about the appropriateness of such behavior. Fifth, *values* refers to the general social desirability of a particular behavior.

These final two facets are influenced by a number of factors which reside at the collective level of analysis and represent social influences on institutionalization. First, through social comparison, individuals validate their beliefs by comparing them to others' beliefs. Second, a "critical mass" for behavioral change occurs

when enough individuals adopt a given behavior such that the costs associated with not adopting the behavior become prohibitively large. Third, individuals tend to make internal attributions about the reasons others engage in behaviors, which results in perceptions that others engage in certain behaviors because they like them or deem them appropriate. Fourth, norms and values become generalized, providing consensus about the appropriateness and value of behaviors and attitudes. Finally, communication and persuasion influence the preceding collective factors by developing and strengthening beliefs, behaviors, preferences, norms, and values.

Lawler: Participative Systems

Lawler (1982) identifies a number of critical variables and mechanisms which impact organizational effectiveness. More specifically, he suggests that organizational design features influence a range of intervening factors that ultimately influence organizational effectiveness. The organizational design features that impact organizational effectiveness are: (1) organizational structure, (2) job design, (3) information systems, (4) career systems, (5) selection, (6) training, (7) reward systems, (8) personnel policies, and (9) physical layout. Each of these design features are composed of several specific characteristics of participative systems. For example, reward systems in participative work systems are likely to be characterized as open, skill-based, offering gain sharing, providing flexible benefits, and having minimal distinctions between individuals based on their horizontal level in the organization.

These organizational design features, in turn, lead to three intervening variables, or what Lawler (1982) refers to as the human system determinants of organizational effectiveness. These are: (1) the motivation for organizational performance, (2) individual performance capability, and (3) communication, coordination, and control. Motivation for organizational performance is composed of: understanding the reward system; understanding the knowledge, responsibility, and meaningfulness of organizational performance; and understanding the link between organizational performance and extrinsic and intrinsic rewards. Individual performance capability is influenced by the motivation for skill building, learning opportunities, and preemployment skills. Communication, coordination, and control are influenced by the motivation and mechanisms for communication, coordination, and self-control.

Summary of Change Process Theories

Change process theories highlight a number of important factors to consider when implementing change. They primarily reflect organizational characteristics that can help or hinder implementation. More specifically, they concern the underlying dynamics of change and the considerations one must give to the factors that

influence organizational outcomes. These fall under the broad categories of social factors, individual characteristics, and organizational systems.

First, the importance of *social factors* such as norms, cohesiveness, conformity, climate, and culture have been mentioned by virtually all theories as critical for not only creating an environment conducive to change but also for maintaining this change over time. These social factors can exert their influence at both the group and organizational level. Second, many of these models focus on the *individual characteristics* of organizational members and suggest how certain constellations of KSAs can impact the OD process. Also, at the individual level, attitudes and preferences appear to be important points of leverage in affecting change. Finally, the importance of *organizational systems* and structures have been highlighted as factors which can facilitate important changes or hinder the change effort. For example, one must consider the design features of the work system (Lawler, 1982) but also be cognizant of how interdependencies and communication patterns influence organizational change (Cartwright, 1951).

Implementation Theories

Porras and Robertson (1987) also identified a number of implementation theories. These theories focus on the activities undertaken by change agents during a change effort. Porras and Robertson identified three different kinds of implementation theories: (1) strategy, (2) procedure, and (3) technique theories. Procedure theories are the most representative of implementation theories as they are concerned with the entire scope of the change and provide specific guidelines concerning the activities of change agents (Porras & Robertson, 1987). While a number of dimensions pertaining to procedure implementation theories have been identified, we restrict our review of these theories to the important steps identified, some of their more fundamental assumptions, and issues that arise during a change effort. Again, the reader is referred to Porras and Robertson (1987, 1992) for a more comprehensive and detailed treatment.

Lippitt, Watson, and Westley: Seven Phases of Change

Building on the classic work of Lewin (1947) and drawing from work on rational problem solving (March & Simon, 1958), Lippitt, Watson, and Westley (1958) developed an expanded model of the change process. They identified seven phases that deal with the different stages or steps a change agent is likely to encounter when attempting to initiate organizational change. They also identified a number of factors that can occur during each stage which influence the success or failure of change efforts.

First, *development of a need for change* occurs when the organization recognizes it has a problem that needs to be addressed. This problem awareness, however, is not sufficient. The organization must translate this awareness into a desire

for change and have confidence that a more desirable state of affairs is possible. The organization also must desire help from outside the system and hold the belief that external help is both relevant and available.

Second, *the establishment of a change relationship* begins when the client system perceives the change agent. That is, the change agent must be viewed as one who will be able to identify and sympathize with the system's problems while at the same time remaining objective and providing a unique perspective. The organization must also understand, recognize, and agree to exert the necessary effort in collaboration with the change agent. In addition, some organizational units may be more or less prepared to change than others, which may require resolution of a number of issues prior to acceptance of the change agent by all units.

The next three phases can be considered part of the process of working toward change. The first of these (the third stage) is the *clarification or diagnosis* of the client system's problems. There exist two fundamental issues during this phase. The first concerns how to obtain information about the state of the organization. Interviews, surveys, and group meetings are but some of the ways diagnostic information can be obtained. The second, and perhaps more important, issue that arises during this phase concerns the shifting nature of the problem. What might seem at first glance to be a relative straightforward and simple problem may turn out to be much broader and complex. It is at this point that factions within the system may begin to oppose the change effort.

The fourth phase concerns the examination of alternative routes and goals and *establishing goals and intentions of action*. In translating the diagnosis into action and intentions, a variety of cognitive and motivational problems may arise. One such problem involves moving from diagnosis to action. Individuals may know what the problem is but have no idea of how to address or solve the problem. Another issue involves the choice and adoption of procedures to remedy the identified problem. Individuals may not wish to give up their current ways of behaving to accomplish other organizational goals. Finally, individuals may experience anxiety about adopting new policies or procedures. They may be afraid of failing when attempting to implement such new activities and, therefore, avoid them altogether.

The fifth phase concerns the transformation of intentions into *actual change efforts*. The organization will measure success in terms of the way in which plans and intentions translate into actual achievements. When attempting to change, the organization faces a number of potential problems. The first concerns securing support from the change agent while the movement toward change is beginning. That is, organizations themselves must be able to create change in situations and conditions where the change agent is unable to be present. A second problem concerns securing support from all parts of the organization. If not all units are committed to the change, it will be much more difficult to successfully implement the change. The final concern during this phase is obtaining adequate feedback regarding the consequences of change. That is, did the change produce positive

results? This is particularly problematic when the outputs are difficult to measure or if the change affects relationships which are external to the organization. If there is inadequate feedback, it is difficult to evaluate the change and determine additional action.

The sixth phase involves the generalization and *stabilization of change*. This concerns whether the change will remain a stable and permanent characteristic of the system. One critical factor involves the spread of change to related systems or different units of the organization. If the change is adopted by neighboring systems, it is more likely to persist. Confirmation of successful change can also increase the likelihood that those higher in the organization will continue to support and promote the change initiative. Finally, the inherent momentum in a change effort can result in the institutionalization of the changes once a certain state of equilibrium has been reached in the system's normal operation. This stabilization can be facilitated by structural changes as well. As structural systems are put in place, change is institutionalized, making it a part of the standard operating procedure.

The seventh and final phase deals with achieving a *terminal relationship* between the change agent and the organization. The ease of termination depends on the degree of organizational dependence on the change agent, and it can be mitigated by several factors. First, if the organization has learned problem-solving techniques, it is less likely to be dependent on the change agent. Second, if there is a low likelihood that internal changes will result in conflicts with the external environment, then the termination will be easier. Finally, the organization may create an internal position to take the place of the change agent. This can be manifested in the creation of internal OD or organizational change positions.

Cummings and Srivastva: Sociotechnical Systems

Sociotechnical systems take the basic approach that every organization consists of a social system and a technological system and that changes in one system will always result in changes in the other. Cummings and Srivastva (1977) adopt a sociotechnical approach to OD which is based on three premises: (1) the use of operational experiments to evaluate the change under limited, controlled conditions, (2) an organizational climate that is conducive to change, and (3) the active involvement of organizational members in the change process. With these premises as a backdrop, eight stages are outlined which represent a socio-technical implementation strategy.

The first stage involves *defining an experimental system*. It should be characterized by clear differentiation from other organizational units, clearly defined input and output states, high likelihood for both success and dissemination of results, and members who are interested in experimentation. The second stage is *sanctioning*, which involves receiving the necessary approval for the experiment and providing the protection required for experimentation. The third stage concerns

forming an action group. After the organizational members who will comprise the group have been identified, they generate redesign hypotheses, collect and analyze relevant information about the experiment, and propose new designs. The fourth stage, *analyzing the system*, concerns gathering the necessary information about the work system to identify problems and understand redesign needs. The fifth stage, *generating hypotheses for action*, concerns generating hypotheses aimed at a joint optimization of the social and technical components and matching the work system and environment. Sixth, *implementing and evaluating* the hypotheses occurs when hypotheses are tested under experimental conditions. In this stage, an appropriate redesign is decided upon, an action program for implementation is devised, the action program is implemented, and the results are evaluated. The seventh stage concerns making the *transition to a normal operating system*. In this stage, the protection afforded the experimental system is reduced and the system is subject to continuous evaluation. This provides a measure of the socio-technical functioning of the system. Finally, in the eighth stage, *results are disseminated* to other organizational units. This dissemination is facilitated if the innovations hold a relative advantage over existing practices, if the innovation can be easily explained, if the new operating system is compatible with existing norms, values, and structures, if it impacts a small number of aspects of the system, if the adopted practices can be reversed without serious consequences, and if relatively few channels of approval are required.

Blake and Mouton: Grid Organizational Development

Blake and Mouton (1968) developed a comprehensive model of organizational development, a key component of which is the leadership grid. This is an assessment instrument that identifies managerial style, which is then compared with organizational problems and needs. Blake and Mouton suggest that two fundamental barriers to corporate excellence are problems with communication and planning. The causes of communication difficulties lie in problems of supervision and the ineffective utilization of people. They suggest that the use of behavior therapy can solve these communication problems. They view planning difficulties as resulting from the lack of a business strategy or the use of an inappropriate business strategy. These fundamental communication and planning difficulties form the basis of their model of OD and the specific phases of organizational change. The first three phases (grid seminar, teamwork development, and intergroup development) attempt to address communication problems. The next two (ideal model design and ideal model implementation) focus on planning issues, with the final phase focusing on evaluation.

The *grid seminar* is the first phase and focuses on individuals in the organization. In this phase, organizational members are provided with theories of management which then serve as tools used to identify communication problems and design solutions. In phase 2, the emphasis is on *teamwork development*. This

extends the application of theories to work team communication problems. This phase involves improving the communication between those individuals who must work together and "must understand and agree with one another as to their purposes, objectives, and plans of action for achieving results" (p. 8). The third phase is *intergroup development*. This is the further extension of behavioral theories to broader organizational units. That is, it focuses on increasing the coordination of efforts between units who share responsibility for achieving organizational goals.

The next two phases concern problems with planning. Phase 4, *ideal strategic model development*, revolves around defining a corporation based on business logic. This ideal organization is then contrasted with the strategies that have been applied in the current organization. Having developed this model, the organization can then plan based on return on investment and dollar-volume objectives. Management science and technology are then used to design and implement the relevant operational specifications for each business segment.

The fifth and final phase, *systematic critique*, is an evaluative review of the entire change effort. This enables the organization to strengthen the communication networks, refine the strategic model, improve the implementation of the strategy, and identify the next steps of development. This model really consists of a series of smaller interventions, with support materials to be used at each step of the process.

Lawrence and Lorsch: Differentiation and Integration

Lawrence and Lorsch (1969) identified two aspects of organizations that must be addressed in OD: integration and differentiation. Since organizations segment themselves into units that deal with only a portion of the total environment (differentiation), they must somehow link these units together in order to accomplish organizational goals (integration; Lawrence & Lorsch, 1967). The environmental and task demands facing the organization, as well as the needs of individual contributors, together with the level of differentiation and problems of integration, form the basis for developmental work in organizations (Lawrence & Lorsch, 1969). The ultimate goal of OD revolves around achieving better fit between either the organization and the environmental demands or the organization and the needs of individuals. To accomplish any change, several stages of OD work must be undertaken.

The first stage is *diagnosis*. In this stage, relevant data must be accumulated on the previously mentioned variables as well as environmental changes. This data collection effort should be conducted through multiple methods, with explicit acknowledgment of the fact that the problems are likely to have multiple causes. The identification of the multiple causes and their interrelations, as well as establishing which system variables are the greatest contributors to the problems, are the most important activities at this stage. In the second stage of *action planning*, several aspects of the organization must be identified. The individuals who are

motivated to make a change attempt must be identified as well as their potential points of influence and leverage on the system. Relatedly, the variables these individuals can most readily influence must be identified. Following this, the third stage is *implementation*. This is the translation of the action plan into actual behavior, typically in terms of a phased time sequence. The final stage, *evaluation*, begins when the implementation is periodically checked for efficacy. This is both the last step and the first phase of a new OD cycle. In other words, the implementation is checked to see if it is working, and if it is not, additional diagnostic, action planning, and implementation activities must be undertaken.

Beckhard: Generic OD

Beckhard (1969) outlines five processes in which all OD efforts engage. He suggests that all such efforts have the goal of increased organizational effectiveness and health, with success dependent in large part on the quality of the OD management and top management commitment. Beckhard (1969) identifies five general intervention processes.

First, *diagnosis* refers to assessing the need for change and the current state of the organization or system. Second, *strategy planning* refers to developing a strategic plan of organizational improvement. This includes determining the systems to include and the order in which they will be engaged, the activities to undertake, and the needed resources. Third, *education* concerns situations in which part or all of the system is engaged in some activity which is primarily educational as opposed to action-oriented. Fourth, *consulting and training* consists of consultation on existing practices, planning new practices, or providing assistance in program-related training activities. Fifth, *evaluation* concerns the continual evaluation of the impact of the development program on the organization as a whole.

Beckhard (1969, p. 97) also outlines 10 conditions necessary for a successful OD program: (1) pressure for change from the internal or external environment; (2) strategic individual(s) are "hurting;" (3) strategic individuals are willing to do a real diagnosis of the problem; (4) presence of leadership (e.g., consultant, key staff person, or new line executive); (5) collaborative problem identification between line and staff; (6) willingness to take risks in trying new forms or relationships; (7) realistic, long-term time perspective-taking; (8) willingness to face the data and work with it to change the situation; (9) the system rewards people for the effort of changing and improvement, in addition to rewarding them for short-term results; and (10) there are tangible intermediate results.

Argyris: Interventionist Theory

Argyris (1970) takes quite a different approach to OD. He suggests that consultants assist organizations in increasing their effectiveness in problem solving, deci-

sion making, and decision implementation. To accomplish this, the consultant engages in the three primary intervention tasks outlined below.

First, *gathering valid information* involves collecting information which describes the factors, and their interrelationships, that create problems for the organizational system. This forms the basis for all subsequent decisions. Second, *free choice* in the organizational system must be ensured so the system and its members can make voluntary, proactive choices. These are facilitated by the information gathered, where the locus of decision making rests with the client system at all times. Third, *internal commitment* to the chosen course of action is created as a result of the preceding steps. That is, the course of action must be internalized by each organizational member so ownership and feelings of responsibility are experienced for the choice and its implications. These three intervention tasks have two implications for OD.

First, the activities required for ongoing, effective organizational systems are the same as those required for the interventions themselves. That is, valid information, free choice, and internal commitment are as relevant and related to organizational success as intervention success. As such, the application of these intervention principles is congruent and transferable to the wider organizational context. Second, and perhaps most important, is that change is not the primary task of the consultant. This may seem counterintuitive, because most OD models refer to the consultant as the "change agent." In Argyris' model, however, change is not an a priori assumption. Instead, the consultant generates valid information that allows the organization to make informed and responsible choices regarding appropriate goals and subsequent goal commitment. While this often results in change, it is not a necessary condition, particularly if commitment is unlikely.

Beckhard and Harris: Institutional Systems

Beckhard and Harris (1977) suggest that two conditions must be satisfied for change effort success. First, organizational leadership must understand the need for change and how change will impact its actions. Second, leadership must have a clear vision of the desired end state (i.e., what will the changed system look like). With these two conditions satisfied, the organization can profitably engage in the change process. Beckhard and Harris outline six aspects of the change process in institutional systems.

First, *diagnosing the present condition* includes assessing: (1) the system's structure and operational method, (2) the subunits affected by a change effort, (3) the processes that need to be changed, (4) readiness to commit to change, and (5) the capability to change. Second, *setting goals and defining the desired end state* following the change should involve explicit goals and define the strategy and direction of the change. Third, *defining the transition state* between the present and the future involves determining: (1) the degree of choice about the change, (2) what needs to be changed, (3) where to intervene, and (4) the choice of interven-

tion technology. Fourth, *strategies and action plans* for managing this transition must be developed. This involves: (1) determining transition management structures, (2) developing a process plan for change, and (3) developing a commitment plan. Fifth, *evaluating the change effort* provides those responsible for the management of change with an assessment of its effects and progress. Sixth, *stabilizing the new condition* and establishing a balance between stability and flexibility involves the organization developing structures that facilitate continual monitoring and improvement. This can be done by setting priorities for improvement, through feedback or via the reward system.

Weisbord: Six-Box Model

Weisbord (1976) developed a six-box model to look at the complexities of the formal and informal systems of an organization and is used primarily as a diagnostic tool. By looking at the boxes, an organization can use the model to identify problem areas. The boxes are: (1) purpose, or the organizational mission and goals; (2) structure, or how the organization assigns work; (3) rewards, or compensation systems; (4) helpful mechanisms, or systems such as management information and other communication processes; (5) relationships, or how well people relate to each other; and (6) leadership, or the style of management in the organization. A key contribution of Weisbord's model is its emphasis on the interrelationships and dependencies that exist among the subsystems.

Similar to Lawrence and Lorsch (1969), Weisbord is concerned with how the organization fits within its environment and how the individual fits within the organization. In addition, he explicitly suggests that both the formal (how things are supposed to be done) and informal (how things are really done) systems are important to organizational effectiveness. Thus, Weisbord's model functions as a "radar screen," where one must "observe relationships among the boxes and not focus on any particular blip" (1976, p. 431).

Beer: Consultant as Change Agent

Beer (1980) identifies a number of conditions for effective change and diagnostic efforts, taking the perspective of the consultant as change agent. He outlines nine steps in the intervention process. First, *selection of client organization* involves the organization self-selecting itself for change. This is critical since the motivation and impetus for change must be internal to the organization. Second, *entry and contracting* consists of introducing the change agent to the organization. In this step, role expectations and relationships to the client system are defined. This is accompanied by an analysis of the current state of the system and the effort required to proceed with an OD effort. The change agent and the organization then formally establish the ground rules of their relationship (i.e., contract) to mitigate future misunderstandings.

Third, *data collection and diagnosis* involve the collection of valid information for the purpose of determining the problems the organization faces. Fourth, *data feedback* is given to the organization. The greatest motivation for action will occur when the data is seen as meaningful and relevant. Fifth, *solutions are developed and tested*. This is accomplished through the joint efforts of organizational members and consultants. Solutions are then tested by having organizational members anticipate all potential consequences of organizational change. Sixth, *action planning* is undertaken in order to implement these solutions. This plan specifies "what, who, when, and even how change is to be carried out" (Beer, 1980, p. 101). Seventh, to ensure action planning success, the organization must *manage organizational transactions*. These transactions involve such things as maintaining the motivation to carry out plans, managing necessary interdependencies within the system, developing a support system, and developing the KSAs of those involved in the change effort. Eighth, *evaluation* involves "planned information gathering and analysis by those responsible for the management of change" (Beer, 1980, p. 245). Finally, *institutionalization* involves solving the immediately identified and targeted problem, as well as creating an organization that is adaptive and able to respond to environmental and personnel changes.

Summary of Procedure Implementation Theories

Procedure implementation theories can be distinguished in terms of three separate but related issues. First, they vary with respect to the extent that they have an a priori theoretical position regarding the causes or sources of organizational problems that OD efforts address. For example, some posit that communication and planning problems are the main issues to be addressed (Blake & Mouton, 1968); others consider differentiation and integration to be fundamental concerns (Lawrence & Lorsch, 1969); and still others consider problem solving, decision making, and decision implementation to be the primary focus (Argyris, 1970).

Second, many theories specify a number of preconditions that must exist for the OD effort to be successful. For example, most emphasize the importance of top management commitment to the change process and a concomitant level of commitment and participation of the organizational members (e.g., Beckhard, 1969; Cummings & Srivastva, 1977), although the impetus for change can occur from the bottom up (e.g., survey feedback) as well. Also highlighted is an organizational climate supportive of change and the proper management or leadership of the change effort (e.g., Beckhard & Harris, 1977; Cummings & Srivastva, 1977).

Finally, all theories have identified a number of steps, stages, processes, or phases of the OD intervention. Many of the theories include similar steps, although some theories are more comprehensive than others and include slightly different stages. A meta-view of OD stages is proposed here and illustrated in Table 2.

Table 2. Meta-View of OD Implementation Theories

1. Discontent	Identify problem Recognize need for change Establish relationship with consultant
2. Diagnosis	Collect accurate and valid information Assess readiness for change Identify design issues and interrelationships
3. Data feedback and goal establishment	Share collected information Generate hypotheses about problems Target systems for change Develop goals to address problem
4. Planning and implementation	Establish specific details of change effort Develop support structures Implement change Provide consulting and training
5. Evaluation and feedback	Systematic critique of change Provide feedback to organizational members Continual evaluation and feedback
6. Stabilization	Maintain change over time Establish permanent evaluation/support structures Consultant exits organization

The first stage is *discontent*. This represents the organization's acknowledgment of some type of a problem coupled with a desire for change. In this stage, an identification of some performance gap, or some problem in the organization, is established, and a need for change is put forth. The organization thus recognizes the need for change (Lippitt et al., 1958), self-selects (Beer, 1980), or establishes a relationship with the change agent (Beer, 1980; Lippitt et al., 1958). The second stage is *diagnosis*, which includes the collection of valid information (Argyris, 1970; Beer, 1980). This information assesses the current state and the need for change (Beckhard, 1969), identifies interrelationships among units (Beckhard & Harris, 1977; Lawrence & Lorsch, 1969), provides understanding and identifies design issues and problems (Cummings & Srivastva, 1977), and assesses the readiness for change (Beckhard & Harris, 1977).

The third stage is *data feedback and goal establishment*. Activities in this stage include sharing the results of the data collection (Beer, 1980), generating hypotheses as to the cause of the problem (Beer, 1980; Cummings & Srivastva, 1977),

identifying the systems to target for change (Beckhard, 1969), and developing goals and strategies to address the problem (Lippitt et al., 1958). The fourth stage is *planning and implementation*, which allows the organization to freely choose the actions to take so it can generate commitment to the effort (Argyris, 1970). Such activities might include identifying the specific details of the change effort in terms of the effected systems (Beer, 1980), developing structures to support implementation (Beckhard & Harris, 1977; Lippitt et al., 1958) such as individual KSAs and communication skills (Beer, 1980; Blake & Mouton, 1968), and providing appropriate consulting and training when necessary (Beckhard, 1969).

The fifth stage involves *evaluation and feedback* of the change effort to those responsible for the developmental efforts. Such an evaluation involves a systematic critique aimed at reviewing and improving the change effort (Blake & Mouton, 1968), where program effectiveness is evaluated and its impact on the organizational system is identified on a continual basis (Beckhard, 1969; Lawrence & Lorsch, 1969). The final stage, *stabilization*, concerns maintaining the change over time. In this stage, the change agent exits the organization (Lippitt et al., 1958), putting structures in place to monitor the organization's functioning and prevent regression to previous states (Beer, 1980; Beckhard & Harris, 1977). Such stabilization, however, does not preclude continuous improvement in an organization's functioning or processes. Instead, stabilization involves consolidating gains, maintaining them over time, and improving when possible.

RECOMMENDATIONS FOR IMPLEMENTING WORK TEAMS

Our previous discussion of organizational behavior and development forms the basis for our implementation recommendations. The OB literature provides guidance concerning the specific factors to target when implementing teams, while the OD literature provides insight concerning the change process and the dynamics of change. In other words, OB tells us what to do, while OD tells us how to do it. By integrating the team effectiveness factors previously identified with our meta-stage model of organizational intervention, we develop a process of planning and implementing teams in organizations.

The implementation of work teams can be conceptualized as a series of choices or decisions that must be made at each step in the implementation process. Our model consists of six stages, with various issues appropriate to each stage as described in subsequent sections of the chapter. Table 3 identifies the relevant OB factors at each of the six OD stages. This provides an understanding of what to focus on at each step in the process by integrating OB and OD research. While this may appear to be a time-consuming process, OD research and practice has had good success with models such as this. Additionally, a systematic approach increases the likelihood of successful implementation as well as highlighting places to look when implementation fails.

Figure 1 identifies important implementation milestones. Drawn from the preceding discussion of OB and OD theories, the milestones provide a means to determine if all the critical issues relevant to a stage have been satisfied. That is, these milestones provide evidence that the implementation is "on track." Table 4 outlines broad implementation themes that are overriding characteristics of any implementation effort. These themes are implicit in the preceding discussion and represent characteristics that either must be present for implementation success or naturally result when work is organized around teams. The extent to which these themes are acknowledged and understood by those implementing teams will determine implementation success.

Finally, while we portray the implementation process as occurring in a linear fashion with discrete stages, there is clearly overlap between the stages and various issues may be addressed in a different order than we present. That is, there are often numerous unanticipated contingencies that arise when engaging in change efforts. For example, political considerations, communication difficulties, or unanticipated complexities can potentially attend the implementation. This will alter the implementation process and is acknowledged from the outset, although most implementation efforts are likely to proceed in roughly the manner we have outlined.

Relevant OB Factors at Each OD Stage

Table 3 outlines the OB factors relevant for each stage of implementation. A check mark (✓) indicates the factor is important, a question mark (?) indicates the factor may be important given special conditions, and a blank space indicates the factor is unimportant for that stage. A brief discussion of the factors, the logic behind their relevance, and other issues follows.

Stage 1: Discontent

The first stage is discontent. Here, the organizational decision makers (perhaps with the help of a consultant) identify a performance gap, recognize the need for change, or are otherwise dissatisfied with the current state of the system. In short, there is a felt need for change. They decide that implementing work teams will improve the organization. This initial decision by the organization, however, should not be immediately acted upon.

The work of Argyris (1970) is particularly relevant and important to consider at this point. That is, the organization must assess if the implementation of teams will actually work given the level of commitment required for a work team structure. This includes assessing such features as top management commitment, organizational climate and culture, reward and information systems, organizational arrangements, leadership, team application/mission, and resource availability.

The contingency factors are perhaps the most important at this point. First, one must determine if teams are appropriate given the task. For example, if there

Organizational Development Stage	Contextual Factors	Structural Factors	Team Design Factors	Process Factors	Contingency Factors
Organizational Behavior Factors	Culture/Climate Training/Education systems Reward/Information systems	Physical environment Organizational arrangements Technological systems	Work design Task interdependence Composition Leadership	Boundary management Cohesion Performance norms Communication Polency	Team application/Mission Resource availability
Discontent	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓ ✓ ✓	✓ ? ? ? ?	✓ ✓ ?
Diagnosis	✓ ✓ ✓	✓ ✓ ?	✓ ✓ ✓ ✓ ✓	✓ ? ? ? ?	✓ ✓ ?
Feedback and Goals	✓ ✓ ✓	✓ ? ?	✓ ✓ ✓ ✓ ✓	✓ ? ? ? ?	✓ ✓ ?
Planning and Implementation	✓ ✓ ✓	✓ ? ?	✓ ✓ ✓ ✓ ✓	✓ ? ? ? ?	✓ ✓ ?
Evaluation and Feedback	✓ ✓ ✓	✓ ? ?	✓ ✓ ✓ ✓ ✓	✓ ? ? ? ?	✓ ✓ ?
Stabilization	✓ ✓ ✓	✓ ? ?	✓ ✓ ✓ ✓ ✓	✓ ? ? ? ?	✓ ✓ ?

Note: A ✓ indicates the factor is important, a ? indicates the factor may be important given special conditions, and a blank space indicates the factor is unimportant for that stage.

Table 3. Relevant OB Factors at Each OD Stage

is little task interdependence and little need for communication, and boundary management plays little role in production, then teams would not necessarily produce any synergies. Second, consideration must be given to the desired work outcomes. For example, if one wishes to maximize quality or creativity of output, then perhaps team structures are appropriate. If, on the other hand, one desires maximization of output quantity, then organizing work into teams may or may not be the appropriate strategy. Third, task demands must be considered. If the task is not divisible and multiple members cannot work on it simultaneously, then work teams are clearly a poor choice, particularly if production is of primary concern. If each task is relatively tedious, however, teams may help reduce boredom if members can rotate among tasks. Finally, one should be sensitive to resource availability and the role this may play in terms of constraining team performance.

Other factors are also important. For example, contextual features such as top management support and commitment to teams and their implementation must be assessed. This is second in importance only to the contingency factors since a lack of commitment or support undermines any team implementation. Reward and information systems, organizational arrangements (e.g., hierarchy), and leadership must also be assessed to determine if they are contributing to the discontent and if they are likely to support team implementation. Communication and potency may be important as well because they often represent common sources of discontent. Most other design and process factors are not relevant at this stage because teams have not been formed yet.

As illustrated in Table 3, the Discontent Stage is marked by basic, fundamental implementation questions. The answers to these questions form the foundation of the Diagnosis Stage and will guide the implementation effort.

Stage 2: Diagnosis

In the Diagnosis Stage, the team implementers gather needed information. For example, the nature of the work in the organization and its appropriateness for teams, experiences of similar organizations with teams (i.e., benchmarking), the resources required to support the implementation process, and various team design issues are all important factors to diagnose.

Key among the issues to consider are contextual and structural factors. Team implementers must obtain information on culture and climate, training and education systems, and reward and information systems as well as information on the physical environment, organizational arrangements, and technological systems. With respect to contextual factors, the organizational reward system must be assessed to determine if it is able to accommodate the kind of outcome interdependence that may be necessary with teams. The ability of the training and education systems to handle the increased demands teams will place on them also needs to be assessed. The culture and climate of the organization must also be examined.

There may be fundamental philosophical differences between the organization's culture and the philosophy behind team work and self-management that may hinder implementation. In addition, if the climate is not supportive of the implementation, it is unlikely to succeed.

Other structural issues include the physical location and environment where the teams will work, the technological system the team will be required to work within, and the various organizational arrangements currently in use. Diagnosing these factors will assess the feasibility of restructuring work around teams and the likelihood that the existing structure will accommodate teams. If the diagnosis indicates problems with any of these factors, then broader structural changes may be necessary to ensure implementation success. If these structural changes accompany team implementation (e.g., company-wide reorganization), then diagnosing the needs of the new team-based structure becomes even more critical.

In this stage, the issues raised concerning the contingency factors (e.g., is the work appropriate for teams?) are confirmed. All team design factors are assessed to provide data on "pre-team" levels. The process may or may not be relevant (as indicated by the ?'s) since there is currently no team from which to gather this data. However, communication is typically important whether or not a team exists, and one might also wish to collect preteam levels of other variables.

These data are fundamental to the implementation process since an organization's standing on these variables will verify that implementation is feasible, and they provide essential information about the appropriate way to proceed with the implementation. Identification of potential obstacles can ease the later transition to teams.

Stage 3: Data Feedback and Goal Establishment

In the Data Feedback and Goal Establishment Stage, the results of the data gathering in the Diagnosis Stage are shared with management and other organizational members in order to jointly determine whether teams will address the source of the discontent. It must not only be determined whether teams would solve the sources of the discontent, but also whether the organizational systems and context would support them. If the answer is negative to either, then the organization should not implement teams. This feedback may also influence the progression of stages as noted earlier. That is, it can influence other parts of the organizational system in ways that have implementation implications.

As noted in Table 3, feedback is given for all the factors assessed in the previous stage. A number of factors are left blank since teams have not been established; therefore, no data exists on these factors. Question marks indicate that feedback will only be provided if the factors were relevant in the Diagnosis Stage.

It is important to note that the diagnosis may indicate issues exist with respect to the physical environment or technology. For example, the source of the discontent might be outdated equipment or inadequate tools. Depending on the scope of the intervention and resources, these engineering-oriented factors may become part of the intervention. In fact, recall that the main point of the socio-technical approach is the *joint* optimization of both social and technical systems. Therefore, the question marks (?) in Table 3 indicate that physical and technological factors may be relevant to this and subsequent stages.

Based on this feedback, goals and objectives are established for the implementation. These goals are then made explicit so that expectations can be determined prior to implementation. In this way, everyone involved in the intervention will understand what is expected of him or her, and the goals will provide criteria against which to judge the success of the intervention. It is important the organization clearly and concretely defines what constitutes successful implementation. It is also crucial for employees to be involved in the diagnosis and goal establishment process because they are the most affected by implementation and most critical to its ultimate success. This involvement is likely to result in greater commitment to the implementation.

Stage 4: Planning and Implementation

The planning phase must address a number of issues that primarily revolve around team design. For example, one must identify the specific KSAs needed for teamwork. Recent research has revealed that teams require additional team-oriented knowledge and skills beyond the technical or task-oriented skills needed to do the work itself (Stevens & Campion, 1994). These team-oriented KSAs include both interpersonal skills (such as communication, negotiation, conflict resolution, and group problem solving) and self-management skills (such as goal setting, performance management, planning, and task coordination). These additional requirements mean either that employees be selected who already possess these KSAs (see Stevens & Campion, 1996, for the use of team-oriented tests) or that employees be trained on these KSAs. It is also important to identify the KSAs required of managers in their new role. Once these KSAs are identified, one should assess the extent to which the human resource systems are prepared to address these needs.

Another key design issue is task interdependence. Considering the interdependence among the tasks within a job allows the motivational value of the job and its ability requirements to be predicted better than just considering the sum of the tasks (Wong & Campion, 1991). This concept is also useful when designing teams. The work of teams should be considered in terms of the clusters of tasks that go together naturally and are typically performed by the same individuals. Teams should be formed around these natural clusters to take advantage of the nat-

ural synergy and process gains that can result. This concept of task clusters is a useful heuristic throughout the implementation process.

Teams must also be designed in such a way that commitment and appropriate motivation is enhanced. This can occur by making the group responsible for a substantial (i.e., meaningful) but manageable part of the work, by developing a reward system that fosters team cohesion, by providing feedback that increases the team's sense of self-confidence, by providing the team with adequate resources, and by providing clear goals.

Other issues relate to boundary management. That is, explicit consideration must be given to the group-organization boundary in terms of the extent to which it is necessary for each team to interact with other organizational units while maintaining its own identity. Leaders can play a critical role in ensuring the integration between work units, and this becomes an important design issue. For example, in production teams where synchronization between various organizational units is critical, it is important to have highly integrated work teams.

Finally, it is important to plan for needed changes in the training and education systems, the reward and information systems, and any structural factors as necessary, such as the way in which the work is organized. Again, these factors provide the teams with the contextual and structural support that is needed for effective performance. The factors without check marks in Table 3 are aspects of the work which cannot be planned or implemented in any meaningful manner (e.g., cohesion, norms, potency).

The implementation phase requires establishing a time line where change is phased in. It is important that this time line is known to all organizational members so uncertainty can be reduced and individuals can prepare for the change. The establishment of contingency plans is also important so that the organization anticipates implementation problems and devises solutions. Determining accountabilities, so that people understand that they are responsible not only for the success of their own work but also for the team's success, is a critical issue that must be resolved during implementation. When implementing teams, there is often a diffusion of responsibility as traditional lines of authority are altered and boundaries between jobs are blurred. Sometimes, no one will be responsible for some important part of the work. At other times, people will feel responsible for everything, thus creating unnecessary redundancies (at best) or job stress and burnout (at worst). Explicit attention to issues of responsibility and accountability is therefore critical. This is particularly important if implementation or performance problems arise later. It should be noted, however, that accountability is often built into the team via differential role responsibility and task specialization.

Another consideration prior to implementation is how the specific details of the change effort will influence organization support systems. For example, a new reward system may be needed to reinforce appropriate team behaviors. Likewise, leadership is a key support system that may need to be modified. The role of leaders in work-team settings is fundamentally different than in traditional organiza-

tions. As such, the role of leaders is likely to be different, as are the KSAs that team leaders will need.

Once these issues have been addressed, the organization can begin to initiate systemic changes according to the previously established schedule. Because it is unlikely that the implementation will be completely successful from the outset, it is important to build in periodic reviews of the implementation process and the effects of the new work team structure.

Stage 5: Evaluation and Feedback

Evaluation and feedback of team effectiveness involves continual monitoring and communication. This includes measuring outcomes against previously defined goals and expectations. As such, evaluation and feedback can and should be obtained on virtually every OB factor. The key issues in this stage revolve around the extent to which teams are performing according to organizational expectations. If there is a deficiency, the data gathered can provide insight into the source of the problem.

The results of these analyses then need to be given to the team. Providing performance feedback and assisting the group in correcting deficiencies is one of the critical functions of team leadership. The provision of ongoing assistance can take the form of helping the team redefine the team's work, increasing learning from previous performance events, and providing process and boundary management assistance. Evaluation and feedback should be built into the team design and can be considered a team-level analog of individual performance appraisal. As such, evaluation and feedback should be a continual process.

Stage 6: Stabilization

Evaluation and feedback allow one to determine if the team has stabilized and is working effectively on a day-to-day basis. Stabilization is facilitated by contextual factors (e.g., supportive organizational climate and culture, appropriate training and education systems, and appropriate reward and information systems) as well as an appropriate match between the work team's mission and structural factors (e.g., physical environment, technological systems). Stabilization is also more likely when process factors such as norms and cohesiveness support the team approach. If there are problems with stabilization, these and other factors should be assessed and altered as appropriate.

The OB factors most important to monitor during the Stabilization Stage are those that are likely to fluctuate over time. That is, some of the factors (e.g., training systems, technological systems) are likely to remain stable after the implementation has been concluded. As a result, they do not need to be monitored as closely. Other factors (e.g., all process, most team design, and most contextual factors), however, may initially change, but then fall back to pre-implementation levels. This can be due to the initial novelty of the change or habituation effects.

Regardless of their origin, stabilization depends upon initial change and maintenance of that change over time. As such, the factors identified in Table 3 should be continually monitored to ensure stabilization.

Implementation Milestones

Beyond identifying which OB factors are important at each stage, it is also important to identify signs that the implementation is "on track." We refer to these signs as "milestones" in the implementation process. That is, at each stage there exists a number of milestones that offer evidence concerning implementation progress. While some of these milestones are difficult to assess and attend to, they provide important information about the implementation. If they are present, the implementation is proceeding according to plan. If these milestones are not passed, then there may be problems with the implementation. The milestones illustrated in Figure 1 are derived from the empirical and theoretical literature on work teams as well as the personal experience of the authors. While they are relatively straightforward, we briefly review them below.

Important milestones in the Discontent Stage center around obtaining management support, commitment of resources, and identifying that teams are applicable given the nature of the work. That is, it is important to ensure that the context is supportive and appropriate for teams. Milestones in the Diagnosis Stage involve information gathering, gaining involvement from key members, and ensuring that the organization is ready for the implementation. This information, involvement, and organizational readiness forms the core upon which successful implementation depends.

Data Feedback and Goal Establishment milestones concern increasing employee involvement, making certain the feedback is understood, that goals address the source of the discontent, and that goal commitment is obtained. These milestones serve as verification that the intentions of the implementation effort are clear. In the Planning and Implementation Stage, important milestones concern obtaining widespread employee involvement, ensuring the plans adequately address implementation goals, and the plans are implemented properly. That is, these milestones check to see if aspects of the implementation program are adequate to ensure success.

Milestones in the Evaluation and Feedback Stage concern obtaining valid feedback on all the relevant dimensions. It is also important to make certain that feedback is obtained from multiple stakeholders (e.g., senior managers, customers, employees) and that the feedback either confirms implementation success or identifies those areas where improvement is needed. Following this feedback, corrective goals and plans can be established. Finally, milestones in the Stabilization Stage concern verifying the feedback is still positive, corrective actions are successful, changes are institutionalized, and support systems are established. These milestones indicate whether the implementation will be successful for the long term.

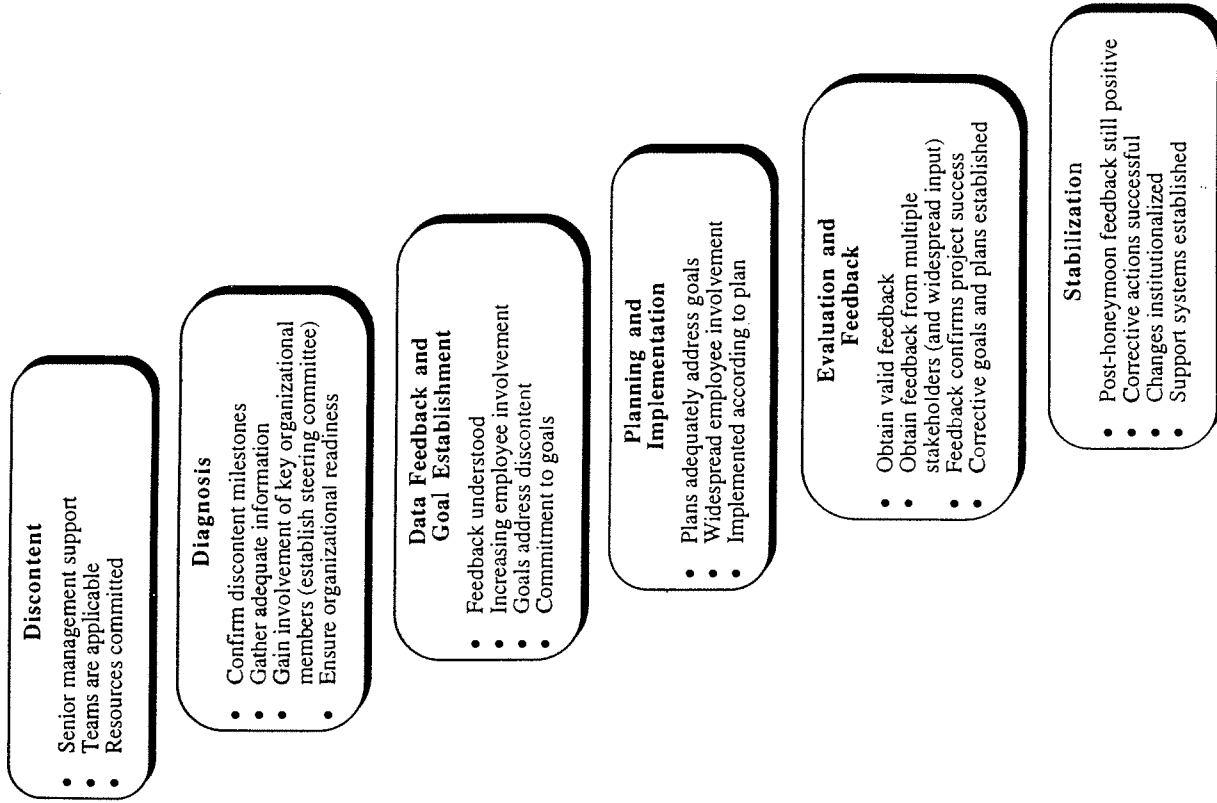


Figure 1. Implementation Milestones

Table 4. Implementation Themes

1. Employee involvement
During implementation
Outgrowth of teams
2. Support
Hierarchical support from all levels
Systems support
Support of "team values"
3. Increased Autonomy
Lower-level decision making authority
Increased tolerance for mistakes
4. Ancillary Outcomes
Experiential learning
Technical flexibility
Self-control
Adaptability

Implementation Themes

Finally, implicit throughout Table 3 and Figure 1 are a number of overriding themes concerning work team implementation. These themes were also echoed in the OB and OD review. They represent characteristics that either must be present for implementation success or naturally result when work is organized around teams. Management must understand and acknowledge these themes prior to implementation. Doing so will allow management and permit to more fully understand the implications of team-based organizations and permit a more successful implementation effort. They are summarized in Table 4 and described below.

Employee Involvement

The first theme revolves around employee involvement, both during implementation and once teams are established. Employee involvement begins in the Diagnosis Stage, when the expertise of a small number of key employees is solicited, often through establishing a steering or search committee. Involvement increases in the Feedback and Goal Establishment Stage and extends to the entire organization in the Planning and Implementation Stage. In addition to the employee involvement necessary for successful implementation, it is also a natural outcome of work team implementation. That is, increased participation in decision making and other activities typically reserved for management commonly occurs in team-based organizations. Such increased involvement requires a shift in management philosophy and style if it is to be valued and fostered. In sum, two types of involvement occur when implementing teams. The first revolves around the involvement necessary to successfully implement teams and the second concerns the involvement that results from moving to a team-based structure.

Support

The second theme concerns the support necessary for successful implementation. Support must be obtained from all hierarchical levels as well as from the systems that teams rely on. In order to implement teams successfully and to maintain their continued viability, senior management, first-line supervisors, and employees must engage in behaviors that support team implementation and commitment to team success. Additionally, the support staff, available resources, and human resource systems all must provide the support necessary to implement teams successfully. Widespread support creates a climate that improves the likelihood of implementation success as well as providing the resources necessary for successful implementation.

Increasing Autonomy

The third theme reflects a trend toward increased individual autonomy in team-based organizations. One of the outcomes of implementing teams is that the autonomy of organizational members is increased as the decision making authority is pushed down to lower hierarchical levels. This fact must be understood and accepted by senior management if the implementation is to be successful. The organization must also be willing to accept the mistakes that result as teams learn and become accustomed to their new decision-making authority. If the organization discovers that it is unwilling to tolerate increased autonomy, it will find it difficult to revert back to traditional hierarchical control. Freedom, once given, is hard to take back.

Ancillary Outcomes

The final theme concerns ancillary outcomes of team implementation. These are the outcomes that result from implementation in addition to the main outcomes of productivity and satisfaction. First, implementing teams generally results in greater experiential learning for team members as individuals are involved in more aspects of work. Second, there tends to be greater technical flexibility in team-based organizations due to the increased participation and motivation of employees. Third, increased self-control is likely to result as team members learn to become more self-managing. Finally, employees are likely to evidence greater adaptability to changing conditions as they move away from a reliance on hierarchical control. These ancillary outcomes result, in part, from the greater autonomy, participation, and involvement that are characteristic of team-based organizations.

CONCLUSION

At this state of the science and practice of organizational development and change, it is clearly impossible to assert in any definitive fashion how to best implement

work teams. In this chapter, we have attempted to outline a model, based on the current literature, that identifies the important stages and factors relevant for implementation success (see Table 3), the themes that are implicit in implementation efforts (see Table 4), and the critical milestones which must be passed when teams are implemented (see Figure 1). It is hoped that this model, along with an accurate consideration of the unique needs of the particular work team application, will provide insight into an implementation strategy that leads to effective work teams.

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