THE TEAM PROFILE: A DIAGNOSTIC TOOL FOR DETERMINING TEAM DEVELOPMENT NEEDS

by

KATHY KRAM DOBKIN

S.B. Massachusetts Institute of Technology (1972)

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE at the MASSACHUSETTS INSTITUTE OF TECHNOLOGY

July, 1973

Signature of Author.................................

Alfred P. Slaon School of Management, July 20, 1973

Certified by.................................................

Thesis Supervisor

Accepted by...........

Chairman, Departmental Committee on Graduate Students

OCT 30 1973
The Team Profile: A Diagnostic Tool For Determining Team Development Needs

by

Kathy Kram Dobkin

Submitted to the Alfred P. Sloan School of Management on July 20, 1973 in partial fulfillment of the requirements for the degree of Master of Science.

The primary purpose of this thesis is to contribute a diagnostic tool to those concerned with increasing the effectiveness of work teams. The observation that there existed a large gap between theoretical work on groups and the practical approaches to team development provided the impetus to engage in an integrative effort. The product is a team profile which is defined by a set of dimensions around the task demands and organization constraints which differentiate teams as unique groups characterized by required interdependence around the work to be done. The use of the team profile as a diagnostic instrument enables team members, administrators and intervenors to accurately determine required developmental needs.

The theoretical effort includes the following: (1) Developmental frameworks on the dynamics of group growth and development are explored in order to lay a foundation for a conceptual understanding of the critical issues impeding team development. These critical issues are then linked to the unique organizational settings in which a team works. (2) Two sets of dimensions are then derived from empirical work with teams which serve to define the nature of the developmental requirements necessary for effective accomplishment of work. Task dimensions determine the level of uncertainty of the work environment as well as the interdependence required to meet the task demands. Autonomy dimensions determine the factors that obstruct effective team functioning and are defined by the role prescriptions of individual team members and the organizational constraints created by the environment in which a team resides. (3) A discussion of these dimensions and their interaction with the developmental framework leads to the team profile which serves as a systematic approach for diagnosing relevant educational intervention.

The movement from the theoretical work on groups to the practical applications to work teams is facilitated through the use of concrete examples throughout the study. The examples are drawn from the author's personal experience with teams and empirical work documented in the literature. The role of the consultant, the required depth of intervention, and the use of observable group processes as indicators of the
current stage of development are discussed in the context of application issues in the use of the team profile.

Finally, it is recognized that the team itself may not be the only target of educational intervention. The alternative use of the team profile as a vehicle for learning about groups interdependent around a set of tasks (teams), in curriculum design is considered. Preparation for team membership is defined as an important focus of intervention leading ultimately to increased team effectiveness.

Thesis Supervisor: Irwin Rubin
Title: Senior Lecturer
Acknowledgements

I am extremely grateful to Dr. Irwin Rubin, who as teacher, scholar, and good friend, has helped me to manage the writing of this thesis in a way which has proven it to be one of the most important learning experiences of my career at MIT.

Professor David Kolb played an active part in the initial generation of the thesis topic. I highly appreciate his help in defining a relevant focus for this work. His patience and enthusiasm encouraged me to test the unfamiliar role of theoretician.

Since the thesis represents a culmination of an intense and broadening experience at MIT, it is appropriate to recognize my close friends and colleagues who have accepted me, and helped me, when I was most frustrated and anxious about the challenges that I faced.

Finally, I want to thank my husband, Dave. Without his unconditional support and understanding, this thesis, and all the work and learning that preceded it, would never have come about.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE PAGE</td>
<td>1</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>2</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>4</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>6</td>
</tr>
<tr>
<td>CHAPTER I: INTRODUCTION</td>
<td>7</td>
</tr>
<tr>
<td>CHAPTER II: THEORIES OF GROUP DEVELOPMENT</td>
<td>12</td>
</tr>
<tr>
<td>Group Development Frameworks</td>
<td>13</td>
</tr>
<tr>
<td>Application to Team Development</td>
<td>24</td>
</tr>
<tr>
<td>CHAPTER III: THE TEAM PROFILE</td>
<td>30</td>
</tr>
<tr>
<td>Team Dimensions</td>
<td>33</td>
</tr>
<tr>
<td>Developmental Stage and the Team's Demand System</td>
<td>49</td>
</tr>
<tr>
<td>Group Processes - Indicators of Developmental Stage</td>
<td>52</td>
</tr>
<tr>
<td>Summary</td>
<td>55</td>
</tr>
<tr>
<td>CHAPTER IV: APPLICATION OF THE TEAM PROFILE</td>
<td>58</td>
</tr>
<tr>
<td>Determination of Developmental Needs</td>
<td>59</td>
</tr>
<tr>
<td>Data Collection Issues</td>
<td>75</td>
</tr>
<tr>
<td>The Role of the Consultant</td>
<td>82</td>
</tr>
<tr>
<td>The Focus and Depth of Intervention</td>
<td>87</td>
</tr>
<tr>
<td>Summary</td>
<td>92</td>
</tr>
<tr>
<td>CHAPTER V: IMPLICATIONS FOR CURRICULUM DESIGN</td>
<td>94</td>
</tr>
<tr>
<td>The Importance of Team Membership Training</td>
<td>94</td>
</tr>
<tr>
<td>Suggested Content And Methodology</td>
<td>99</td>
</tr>
<tr>
<td>Learning Methodology</td>
<td>103</td>
</tr>
<tr>
<td>CHAPTER VI: SUMMARY AND CONCLUSIONS</td>
<td>111</td>
</tr>
<tr>
<td>ENDNOTES</td>
<td>118</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>121</td>
</tr>
</tbody>
</table>
### List of Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIGURE 1</td>
<td>An Integrated Group Development Framework</td>
<td>23</td>
</tr>
<tr>
<td>FIGURE 2</td>
<td>The Team Profile</td>
<td>48</td>
</tr>
<tr>
<td>FIGURE 3</td>
<td>The Diagnostic Flow</td>
<td>57</td>
</tr>
<tr>
<td>FIGURE 4</td>
<td>The Kolb-Frohman Consulting Model</td>
<td>83</td>
</tr>
<tr>
<td>FIGURE 5</td>
<td>The Team Development Process</td>
<td>91</td>
</tr>
</tbody>
</table>
Chapter I

Introduction

It has become increasingly clear over the past decade that teams have evolved as the primary work unit in most organizations. This has grown out of the heightened complexity of the organizational mission and the breadth of technology required to reach its accomplishment. No longer do the resources to accomplish required tasks lie with one individual; as a result interdependence among group members is essential to effective organizational performance. This interdependence around work is what differentiates a team from any group of individuals and is what has induced professionals concerned with improving organizational effectiveness, to focus on the team as a major point of educational intervention.

As a result of the change in organizational requirements, there grew a need for systematic approaches to improve the functioning of such work teams. Varied experiences led to the conclusion that it was impossible to put a group of people together and expect them to work effectively as a team without supplying them with the knowledge and skills to organize around a set of interdependent tasks. Energy was consistently expended overcoming dysfunctional behavior which could otherwise be directed towards the work itself.

The implications of such evidence is explained in a statement by Blake, Mouton and Blansfield:  

[1]
The first step is for individual members of the team to train together to perfect skills needed in their working relationships. In football, for example, the critical learning is associated with actual scrimmage where a team perfects its communication, control and decision-making skills. Scrimmage is not what each specialist trained by himself does, but rather each of the specialists, in terms of his own job description, blends his effort with team effort to achieve success. In addition, a coach uses chalk talks to explore the internal strategies of plays and to gain understanding of what each individual needs to contribute to support effective team action. Finally, specialized coaching may be provided by team members to increase individual skills so that each person can make a more effective personal contribution to team operation.

Scrimmage contributes to the success of the football team in the same way that practice and training can contribute to the success of any team which exists because of the need for interdependence around a set of tasks. This practice and training, which has evolved into systematic approaches to increase team effectiveness is what defines team development.

There is substantial consensus around the assumptions underlying team development efforts. They can be summarized as follows:

1) The team has a reason for existing
2) Achieving the goals of the team requires interdependent action
3) Time spent understanding, diagnosing and improving team processes has value.²

What is less evident is consensus around the appropriate focus and methodology for a team development effort. A variety of approaches has been employed (e.g. Beckhard³, Blake and Mouton⁴, Harrison⁵) which have in common an action-research
model as a basis for design. At the same time, however, there has been little attempt to systematically integrate the theory available on groups and teams. Sociologists and psychologists have produced material on the dynamics of groups and the developmental issues underlying their growth (e.g. Mills, Schutz, Bennis and Shepard). Behavioral scientists have focussed their efforts on producing designs for eliminating dysfunctional behavior in teams. One primary purpose of the study which follows is to bridge the gap between the theory of groups and the practical knowledge of team development. The output is a "team profile" founded on the theory of groups and the empirical evidence available on the dynamics of teams, which can serve as a diagnostic tool in determining the areas in which educational intervention is appropriate. The assumption underlying such a model is that teams vary along certain dimensions which in turn differentiate the appropriate focus of team development efforts. Such differentiation has not been made previously with respect to the team development strategies that have been defined. In an attempt to generalize team building concepts, the unique attributes of particular teams and their environments has been buried.

The team profile emerges as a framework in which to organize observable data on a team's current stage of development in order to determine the appropriate educational intervention. The use of concrete examples of a variety of teams which vary along the relevant dimensions will serve to illus-
trate the use of the diagnostic tool. In order to insure that the use of the profile is well understood application issues will be defined and discussed. The role of the consultant in the developmental process, the use of group processes as indicators of the current stage of development and the focus and depth of required intervention serve as focal points of the discussion to provide a checklist of relevant questions to be considered in applying the team profile in organizational settings.

Finally, as a result of making the use of the relevant dimensions of the team profile explicit, the author will address the question of what intervention can be made in training specialists who will become future members of teams. This will serve to outline implications for curriculum design in school settings. The assumption underlying such a focus for discussion is that given the complex demands of organizations resulting in the team as a basic work unit, most individuals will ultimately find themselves working in teams. In addition, to date, very little attention is paid to this consequence in designs of educational programs. One hypothesis which cannot be tested within the scope of this paper is that an educational input before an individual becomes a member of a team can better prepare him for team membership.

The highest order purpose of what follows is to integrate a body of knowledge around groups and teams with the practical experience of team development practitioners and team members
as well. This work will hopefully be of interest to members of teams, practitioners of team development and administrators concerned with organizational effectiveness.
Chapter II
Theories of Group Development

In order to create a useful diagnostic framework for determining team development needs it is crucial to fully understand the critical issues impeding team effectiveness. If one views a team as a group differentiated by task demands and organizational constraints, then knowledge about the developmental process of groups can serve as a foundation for identifying these critical issues. A survey of the literature on group development suggests that there are an identifiable number of stages of development through which a group progresses over the course of its life. Each stage is characterized by a set of critical issues which must be resolved if movement to a higher stage of development can occur. For the diagnostician concerned with facilitating the movement to a higher stage of development (e.g. team development), a systematic framework which identifies the critical issues impeding such growth, will serve as a foundation for determining required intervention.

The purpose of this chapter is to build that foundation for a complete diagnostic framework by addressing the following questions:

1) What are the critical stages of development that characterize group growth?
2) What are the critical issues that impede movement to a higher stage of development?
3) How can a framework of critical issues be applied to the determination of team development needs? A discussion of two developmental frameworks will serve to create a checklist of the critical issues impeding the general developmental process.

**Group Development Frameworks**

For the purpose of this study of group development frameworks, we will define a group as any number of individuals who 1) interact with one another, 2) are psychologically aware of each other, and 3) perceive themselves to be a group. It is also an aggregate of organisms in which the existence of all is utilized for the satisfaction of some needs of each. Thus people standing on a street corner waiting for a bus are not considered a group, because they are not there to satisfy one another's needs and do not perceive themselves as a group. A family, on the other hand, is a group according to this definition. A work team, whether it be a health team, a management group, an assembly line, or a highly technical research staff, is a special kind of group. Members are together because they satisfy each other's needs and perceive themselves as such. In addition, the nature of the organizational context in which they live, require certain structures and processes in order to successfully get work done. The factors that determine appropriate structure and processes will be explored in developing the team profile which is the diagnos-
tic framework produced to serve as an instrument for determining team development needs. The interaction of the developmental variables with the organizational variables produce an integrative framework in which to systematically look at a team's developmental needs. This will become the focus of the next chapter after a thorough foundation of a general group development framework has been established. What follows is a discussion of group development frameworks from the perspective of two authors. A comparison of the two approaches will produce a general model of the developmental process which will be used to determine the critical issues that impede team development.

Mills Framework

Mills identifies five orders of purpose underlying the formation and development of groups which are sequential in the sense that the higher order purposes can only be met after the previous ones. They are 1) immediate gratification, 2) to sustain conditions permitting gratification, 3) pursuit of a collective goal, 4) self-determination, and 5) growth. The first two orders of purpose require less capabilities and systems for a group to function well and for individual needs to be met than the latter three. As a group progresses from one stage to the next the requirements build on each other until maturity is met at stage five and we can say that a group is regenerative, i.e. it can learn, change its course,
interact with other systems and continue to achieve the common goals first determined in stage three.

In order to illustrate the significance of these orders of purpose which define the stages of development it is useful to cite an example. Using the family as a natural group setting serves to point out the movement through stages over time. Male and female meet to satisfy immediate needs which can be gratified through an evening spent together. When dating continues over time and a relationship is established conditions are developed to sustain gratification. Through marriage a collective goal centered around making a life together becomes the purpose of their group. When a decision (such as) to have a family comes about a choice to change the course of their collective goals is termed self-determination. This stage is characterized by the ability to change course without destroying the basic identity of the group, the family. Finally as the family is able to grow, learn from its environment, and actively seek contacts and experiences which increase its capability it has reached a regenerative stage as defined above.

The family is defined as a group when it has defined a collective goal. This concept is transferable to groups in work settings. Until a collective goal is established individuals are not identified as a group. Needs that are satisfied informally defining purposes of immediate gratification and sustained gratification are characteristic of tem-
porary or informal groups which are not the focus of educa-
tional intervention. The delimma facing the family group is
that as a new member joins there is no opportunity to move
through the first two stages of development. This is true of
work groups as well where development starts around a collec-
tive goal when a group is defined by imposed task demands that
require the formation of groups to get the work done.

Numerous other examples can be given to illustrate the
five orders of purpose. Individuals on a street corner wait-
ing for a bus may talk with each other to pass the time away.
Movement towards stage two may never come about unless the
choice is made to arrive early to insure that conditions are
sustained to gratify personal needs. Some groups will never
move to a fifth order purpose. An assembly line group is put
together to get a job done. A collective goal is assumed and
the first two orders of purpose are formally overlooked. There
will be no need for self-determination and growth purposes
to evolve because of the programmable nature of the work.
Thus, the required order of purpose in work groups is deter-
mined by the nature of the work to be done.

Thus, each order of purposes will require a higher level
of development indicated by group members capabilities to
resolve the crucial issues characteristic of each stage.

Of primary relevance to the study of teams in this model
is the set of issues which become of primary concern at each
stage of development. These issues are ones that must be addressed if the capabilities of individuals as group members are to expand to enable a group to move to a higher order purpose. The assumption underlying the model is that each order of purpose requires role-systems which develop to address the crucial issues. These role systems, in behavioral terms, are the skills and procedures used to move the group to a higher developmental stage. For the diagnostician, the critical point is to understand the issues that must be addressed for further development to occur, and to collect the data necessary to determine where the group is currently situated.

In the first stage the critical issue centers around commitment. The primary concerns here are to what extent members are prepared to give to others, and what members want from the group. In other words, more behaviorally stated, the uncertainty of expectations is what must be addressed if movement to stage 2 is to come about. In order to work this issue, roles must develop which allow for interaction, discussion, feedback and negotiation. In the second stage the primary issue is one of authority and is characterized by focus on the norms of the group and in particular how they are set and modified. It is in this stage that the individual must relinquish personal freedom so that the group can coordinate itself in order to sustain itself. This opposition between individual latitudes and collective coordination is precisely what makes up the focus on authority. The third
stage revolves around the critical issues of intimacy and work. Members are concerned with the nature of interpersonal relationships around a particular collective goal and the mechanisms available for getting the work done. There is always the question of flexibility of plans which links to the structure questions in stage two. Through stage three the group deals with questions of commitment norms and the way to get the work done. Up until this point one can say that the direction and goals of the group are not being questioned but rather the focus is on the medium in which members will work and live as a group.

Stages four and five represent a major shift in development because it represents the formation of a capability to evaluate and look at the group's purpose. The critical issue in stage four is that of integrity which is characterized by an ability to question group goals, alter them and still manage to hold together as an entity. In stage five the group is able to look outward because of a strong sense of "self" and the critical issue is one of interchange which revolves around the question of relating to other groups, learning from other resources while maintaining the capacity to determine its own goals and identity. It is during these two stages that an "executive role" is crucial. This role is characterized by the ability to look at the internal dynamics, the future direction of the group, and to insure flexibility while maintaining a collective identity.
Such a brief summary of Mill's framework does not really do it justice but in order not to confuse the intention of this section we will remain brief. It is clearly evident that the sociological perspective is analytical, but at the same time lacks concreteness. In order to make the model transferable to a team diagnostic framework it is necessary to embellish the concepts with concrete examples.

The assembly line group can be used as an example to point out that certain groups do not require a high level of development. Because of the programmable nature of the work to be done, there is no requirement for a capacity to change goals and course, or to learn from other groups and therefore be regenerative. The processes required by the group can be written and predicted, and thus the quality of interaction among group members does not require the resolution of major developmental issues of integrity and growth.

The health team, on the other hand faces a task environment that is highly uncertain and requires constant evaluation of procedures and methods, as well as continual learning about the work to be done. There are no written rules and procedures appropriate for such undefined work. Therefore the developmental requirements are much higher. The resources to get the work done involve all members of the team as well as individuals outside of the team context (support staff). Thus the capability for interchange is crucial for maximum effectiveness, and the critical issues impeding movement to this
highest level of development must be resolved.

Each stage of development of a particular group can be identified by looking at the focus of discussion and the processes at work at any given time in the team context. The specific behavioral indicators of a particular stage will be explored in the chapter on the application issues in using a diagnostic framework based on a developmental framework. The integrated framework to be determined at the end of this chapter presents a set of key process issues that indicate, in general, the critical issues impeding movement to a higher stage of development.

**Schutz\(^3\) Framework**

This model was chosen because of both its similarity to the Mill's framework and its differences. The point to be made is that most developmental models concur on the critical issues that characterize the process of group growth. The Mill's orientation is sociological in that it looks at the group as a system with role systems that must be developed. Schutz, on the other hand, takes a more psychological approach and uses an individual growth model to describe the development of a group. After describing this model we will look at the similarities of the models and their applications to teams and team development.

Schutz describes three phases which recycle over and over again until a group dissolves. These phases are based on a
psychological theory of individual growth which for the purposes of this paper will not be explored in this section. Initially the group is dealing with problems of inclusion—to join or not to join; to commit oneself or not. Thus the group concern, is boundary problems and a testing on the part of individuals as to where they belong within the context of the group. Schutz describes behavioral cues which indicate presence in this phase which he terms "goblet issues" discussions which are of equivalent depth of cocktail party talk. This is seen as a device for testing and getting to know one another before moving on to any significant work or interaction which requires personal commitment. This stage is very similar to the "flight" phenomenon described by Bennis and Shepard as well.

The second phase centers around the issue of control. Once the commitment issue is resolved in phase one, members become concerned with decision-making procedures, the sharing of responsibility and distribution of power and control. Characteristic behavior at the stage includes a leadership struggle, competition, discussion of orientation to the task, and the nature of the norm structure.

The third phase is characterized by a focus on problems of affection. Individuals are concerned about not being liked, being too close or not close enough to others and each member is striving for his most comfortable position in giving and receiving affection. Essentially this is parallel to the
intimacy issues described in stage three of Mill's framework.

The two development models described are different in their perspectives to the extent that Mills comes from a sociological viewpoint and Schutz from a more psychological viewpoint. Their manner of describing the behavioral consequences of a particular phase are thus quite different. Mills speaks of role systems in a fairly abstract way, Schutz describes the physical and behavioral events that accrue to individuals. In using either framework, it is the diagnostician's job to determine what phase the group, or team, is currently in. This will become a focus of extensive discussion in the chapter on application issues, but at this point it is helpful to compare the two models. Figure 1 serves to point out how they overlap, what issues are prevalent in each phase, and what processes become apparent in each phase of development.
### Figure 1
An Integrated Group Development Framework

<table>
<thead>
<tr>
<th>Stage of Development</th>
<th>Critical Issues</th>
<th>Mills</th>
<th>Schutz</th>
<th>Group Process Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Commitment</td>
<td>Inclusion</td>
<td></td>
<td></td>
<td>a) What do members want? prepared to give?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>b) Group wants?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>c) Psychological contract/ decision to join</td>
</tr>
<tr>
<td>2. Authority</td>
<td>Control</td>
<td></td>
<td></td>
<td>a) What are the groups norms? How/by whom are they set?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>b) Account for member needs/ environmental necessities</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>c) Mechanisms for negotiation/revision decision to stay</td>
</tr>
<tr>
<td>3. Intimacy</td>
<td>Affection</td>
<td></td>
<td></td>
<td>a) Intimacy-close vs. distant. flexibility of personal involvements</td>
</tr>
<tr>
<td>Work</td>
<td></td>
<td></td>
<td></td>
<td>b) Work-flexible plan for achievement and flexible rewards. decision to participate around collective goal.</td>
</tr>
<tr>
<td>4. Integrity</td>
<td></td>
<td></td>
<td></td>
<td>a) Can group become conscious of itself?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>b) Can it hold together while changing goals? (within group growth)</td>
</tr>
<tr>
<td>5. Interchange</td>
<td></td>
<td></td>
<td></td>
<td>a) Can the group give to/ take from other groups.</td>
</tr>
</tbody>
</table>
It is clear that the Mills and Schutz conceptual schemes overlap. Though there are only three phases in the latter, Schutz sees them as recycling over time. The issues of Interchange and Integrity as Mills describes them are not explicitly addressed though they can be perceived as a part of the recycling through the phases when change in direction and the relationship with the environment (other groups) become the point of focus. Schutz does not take the organizational context into account thus explaining the absense of an inter-change phase. This becomes a crucial consideration in talking about work teams that function and develop within a system of demands and constraints.

Application to Team Development

Given the framework of a developmental perspective on groups in general, one can now switch the focus to its applications to teams. A team, defined as a group which is to some degree interdependent around a task, is nonetheless a group which develops over time. The crucial distinction to be made, however, when viewing team development as a "planned growth process" is that a team does not exist in a vacuum, and in fact the demands and constraints that it faces impact tremendously on its development. Thus, in order to use a developmental framework as a take-off point for thorough diagnosis of team development needs, one must first outline the issues that impinge on the developmental process.
Firstly, and most importantly, teams of any nature are not generally given the luxury of working through the issues prevalent in stages one and two of Mills developmental model. If one looks at any team, be it a management team, a health team, or an athletic team, it can be observed that an implicit assumption is made that teams can begin at Stage Three. This is to say that collective goals are determined primarily by directive, or by recommendation from the organization management in which a team lives. There is very little observable data to support any act of dealing with the commitment and authority issues at the outset of a team's life. This is primarily a result of the demands of the system which require that work get done—and as a part of the system a team must necessarily get working on those tasks which justifies its existence. As a result one finds that little overt, formally sanctioned energy is directed towards the commitment and authority issues, or in Schutz framework the inclusion and control issues. The consequences of this is future energy drain on the team because of unresolved questions which get in the way of getting the work done. (see Mill's) The imposition of goals is a reality of organization life. The issue that can be affected is what can be done to resolve the issues that impede group development? This becomes a question for the diagnostician.

It is also fairly clear that the effects of not addressing the critical issues of stages one and two vary with the
nature of the team. One hypothesis to be explored later in this paper is that the greater the interdependency required around the work to be done, and the greater the uncertainty around that work, the more crucial the developmental issues become. This can be illustrated as follows: An assembly line team has high interdependency and low uncertainty about the way work should be done. As a result, there is little need for on-line problem-solving, and little need for creative interdependent work. Thus questions of responsibility, decision-making norms, and the need for sophisticated group process becomes less relevant. In the case of an interdisciplinary health team, where there is high interdependence around comprehensive care, and high uncertainty around the way to get the work done, effective group process, flexibility in structure become far more important because of the ambiguity of the work to be done. These are two extreme cases which are mentioned to point out that the developmental stage becomes more or less important depending on the nature of the team. It is congruent with Mills' work, that capabilities in each stage depend on the previous ones so that if the task requires regenerative capabilities, attention to the developmental stages is highly relevant. The interaction of the developmental characteristics of a team with other dimensions that differentiate it from other teams will be explored in depth in the following chapter.
The second point to be made in the application of a developmental framework is that, as Mills points out, new members of a group define a new group in stage one. As a group develops each individual must move through the stages to reach a level of maturity at which time the group possesses the capabilities to be regenerative. The complexion of a team alters with new members and initial critical issues become relevant again. This is also true for the interventionist, who, by his very presence in the life of a team will in some ways affect its level of development. One of the issues for the consultant is that of commitment, and role. These fall exactly into the issues relevant in stages one and two, and it is postulated that this is no accident but rather due to the impact that an outsider coming into a group can have.

The third and final point to consider in using the developmental framework is that the focus and method of educational intervention will depend on the level to which it must move in order to effectively accomplish its work. The demands on the system (team) will determine what capabilities are needed, and thus the focus for intervention. The methodology and depth of intervention will then follow from the focus of learning.

The purpose of this section was to build on the developmental framework available so that the critical issues in group development could be appropriately considered in deter-
mining team development needs. Ultimately the question raised needs to be answered in the context of the other dimensions which determine the nature of any particular team. The following chapter is designed to explore what those dimensions are, to integrate them with the developmental framework so that a diagnostic tool emerges.

In summary, the developmental process of groups is relevant to the diagnosis of team development needs in the following ways:

1) It serves to point out what issues are relevant at any stage in a group's life, and what issues need to be worked for further development.

2) It suggests a target for team development in conjunction with the task demands and organizational constraints that face any team.

3) It determines the focus and depth of intervention that are appropriate at any given point in time.

If one looks at team development as a change process, in which the purpose is to facilitate the movement to a higher stage of development, the group developmental issues become critical. This can be illustrated as follows:
How far the team must move, and what it must learn to move, depends directly on the other realities of its life to be explored in the next chapter.
Chapter III

The Team Profile

The developmental models of groups defined in the last chapter served as a context in which to explore the nature of team development. The issues outlined previously concerning the applicability of a group development framework to teams needs to be explored within the larger context of a team's demand system. The assumption here is that the developmental needs of a team are determined by additional dimensions which differentiate it from groups in general. The interaction of these dimensions with the developmental phase of a team produce a diagnosis of team development needs. The purpose of this chapter is to explore those dimensions which differentiate teams from groups, and from each other. By referring to the empirical research available on work teams, groups, and organizations, it will be possible to create a set of dimensions which will serve as a diagnostic framework to be used as a vehicle for creating a unique profile of a given team. Such a profile in conjunction with a framework of intervention style and focus should produce, as an output, action plans for any team development effort.

Before defining the relevant dimensions it is important to make explicit the assumptions which underlie the effort of creating such a diagnostic framework. One might ask why a team cannot develop by itself according to the developmental
framework outlined previously. The critical issue here, concerns, again, the primary difference between groups and teams. Because teams are defined by their interdependence around work to be done, their requirements for effectiveness are modified by this purpose. The task demands and organizational constraints operating on a team increase the need for sophisticated group processes while in groups which are not formally defined around interdependent tasks, the need is reduced somewhat. Such interdependency makes demands on group members to resolve the critical issues of a Mills' framework, while at the same time meeting its task requirements. The work to be done and the developmental issues impeding group development become competitive for the group's energy. (e.g. if individuals are not committed to the group, then energy will be dissipated away from the work to be done.) The more energy that needs to be directed towards the critical issues (especially in early stages of development) the less energy there is available to direct towards the goals which define a team's existence. Thus, if the developmental process can be facilitated to allow more energy for the work, team effectiveness increases. In more concrete terms, energy is dissipated away from the work to be done as a result of dysfunctional behavior. The gravity of such behavior certainly depends on the nature of the team itself but it can be generalized with fair amounts of evidence that such dysfunctional behavior manifests itself in group process issues directly related to
those outlined in Mills' and Schutz's frameworks. Behaviorally, they are observable in poor decision-making procedures, competitive behavior that impedes interdependent work, norms that don't allow for the generation of quality work, and leadership styles which obstruct the work as well. The specific behaviors which need to be modified become clear as the team dimensions are defined.

Ivan Steiner\(^1\) presents this viewpoint in another way which supports the energy hypothesis. He states that:

\[
\begin{align*}
\text{Actual Productivity} &= \text{Potential Productivity} - \text{losses due to faulty process,} \\
&= A + B - C
\end{align*}
\]

where

- \(A\) = task demands
- \(B\) = resources
- \(C\) = process, actual steps taken to confront a task, i.e. transforming resources into a product.

The primary reason for defining dimensions to differentiate teams is to enable an accurate diagnosis of the faulty process which dissipates energy that could otherwise be directed towards the work to be done.

By defining these dimensions, we are essentially creating a life-space for the team, thereby differentiating it from a group and defining it uniquely along certain critical dimensions. What follows is a detailed discussion of the dimensions and an attempt to identify their interaction with the group development framework to arrive at a workable "team profile".
Team Dimensions

Task Dimensions

Interdependence: The degree of interdependence around the work to be done is determined by the need for individuals to work together in order to get tasks accomplished. The higher the interdependence, the more distributed are the knowledge and skills required to get the work done, and therefore the higher the need for coordination among team members. As long as members are contributing to a collective task, rather than to an individual task which requires no one else's input, there is some degree of interdependence.

Fred Fiedler\(^2\) describes three kinds of groups. Interacting groups require close coordination of several team members in the performance of a primary task where the functions of individuals are interdependent. Co-acting Groups are ones which work together on a common task as well. However, each of the group members does his job relatively independently of the other team members and his performance depends entirely on his own skill and maturation. Counter-acting groups are made up of individuals working together for the purpose of negotiating and reconciling conflicting opinions and purposes. Within the definition of the team, as used in this paper, interacting and co-acting groups may both be considered teams because of their contribution to a common set of goals. The more co-acting a group is, the more independent the efforts become, the less it resembles a team. A fine line cannot be
drawn but it is important to note that at each extreme of the interdependence dimension, there will be different developmental and process requirements.

The nature of interdependence which characterizes co-acting and interacting groups can be defined in an alternative way. There are essentially three types of interdependence.

A. Sequential interdependence is a condition in which one member cannot do his task until another has completed his own.

B. Parallel interdependence is a condition in which members work simultaneously on different tasks which contribute to a common end product.

C. Pooled interdependence is a condition in which members must work together on a common task to produce an end product.

Parallel interdependence is characteristic of co-acting groups. Each individual does his job relatively independent of others but all work contributes to completion of a common task. This type of interdependence requires the least amount of coordination among members; the quality of interaction required is generally routine and well defined. Pooled and Sequential interdependence are more characteristic of interacting groups. The degree of interaction required is generally higher in the sense that sharing of information to get the work done is more crucial. The nature of interdependence required is defined both by the degree of intensity and the
type (parallel, pooled or sequential). The implications for required stage of development cannot be determined until the interdependence dimension is viewed within the context of the other task dimensions as well.

High requirement for coordination among members does not alone demand a high stage of development. It is the quality of coordination required, determined by another task dimension that defines the required stage of development.

The degree of interdependence has implications for team structure and team process. Lawrence and Lorsch\(^3\) describe this in terms of the nature of the environment in which a team functions. The more complex the environment, or tasks, are, the higher the need for interdependence because of the fact that resources to tackle the task are necessarily distributed among individuals.

High interdependence is characteristic of a variety of different teams differentiated by other dimensions as well. A basketball team is highly interdependent around the collective goal of winning and if it is using its resources, no one man can accomplish the goal by himself. In the operating room of a hospital, the collective effort of several people, each contributing unique skills is required in order to achieve patient care. The same is true of an interdisciplinary health team where no one person has all of the skills needed to meet medical, social and economic needs of the patient population. It is clear that these teams differ in structure and process
along a number of other dimensions. Therefore, high interdependence in and of itself does not imply specific team development needs.

Low interdependence is characteristic of policy-making teams (management groups) and faculty groups where although the collective goal is education, work is generally done independently with infrequent need for interaction and overlap of skills. Another example would be a high technology research group where each member is working on an entirely different aspect of the final product. Skills are distributed, but interaction is not necessary for task accomplishment.

There are numerous other examples of teams which vary along the interdependence dimension. What the dimension suggests will depend on its interaction with the others described below. What can be generalized at this point, however, is that the higher the interdependence required by the work, the higher the requirement for coordination among members. The implications for group processes are difficult to determine without moving on to the next task dimension. One can say, however, that interdependence implies, by definition, that members are dependent on each other—if commitment is missing on the part of any individual this will have tremendous impact on the team's performance. This is one way in which the interdependence dimension interacts with the developmental issues described in Chapter 2.
Certainty-Uncertainty Dimension

This dimension refers to the extent that the tasks facing a team are definable and routine in approach. Lawrence and Lorsch suggest that the higher the uncertainty, the higher the need for a flexible structure which can adapt to the changing and unpredictable task demands. Uncertainty also defines that amount of creative work and on-line problem-solving that must occur in getting the work done.

Charles Perrow suggests that the team structure will greatly depend on the certainty of the tasks to be done. Viewing the technology as the independent variable and the structure, or group processes as the dependent variable one can analyze that team requirements on the basis of the technology required. He defines two dimensions to differentiate the nature of the work; the degree to which there are exceptions in the work to be done, and the degree to which problems are analyzable as opposed to unanalyzable requiring new research for alternate technology. This description links up very well with the Lawrence and Lorsch's framework of certainty and uncertainty of the environment. The more uncertain it is, the higher the need for search, and the higher the occurrence of exceptions. The implications are far reaching to the extent that they effect the degree to which roles can be defined clearly, and to the extent that online problem-solving is required.

Shaw offers another framework for determining the
structuredness or unstructuredness of the work to be done. He defines four dimensions along which tasks can be classified.

1) Decision verifiability—the degree to which correctness can be demonstrated either by appeal to authority, by logical procedures (mathematical proof) or by feedback (examination of consequences).

2) Goal Clarity—the degree to which the requirements of the task are clearly stated or known by group members.

3) Goal Path Multiplicity—the degree to which the task can be solved by a variety of procedures (i.e. the number of different methods to reach the goal) the number of alternative solutions or the number of ways a task can be completed.

4) Solution Specificity—the degree to which there is more than one correct solution.

The higher the work falls along these dimensions, the more requirements for on-line problem-solving there are. Tasks cannot be well outlined, there is no right or wrong, and therefore flexibility of group structure becomes a must if the team is to be effective. This dimension has implications for the norms, leadership styles, roles, and procedures that are appropriate. The more defined, or certain, the tasks are, the easier it is to define roles, procedures and to assess the quality of the work. The uncertainty dimension interacts with the developmental process as well. The higher the uncertainty of the work, implying high need for flexibility, the
greater the requirement for a capability to alter one's course, look at team functioning, and interact with other groups (to gain more resources). Thus, the developmental requirements are high in the sense that a regenerative capability is crucial.

It can be postulated that over time tasks can potentially move from being uncertain to more certain. This occurs with learning about the environment to the extent that certain procedures are defined as optimal. However, teams run the risk of defining tasks as structured and programmable when in fact they are not. Rigidity sets in and effectiveness is reduced.

The interaction of the certainty dimensions with the interdependence dimension is crucial in understanding the team profile. Where task interdependence is low the uncertainty of the work to be done is likely to be low as well since roles are defined quite independently of each other. One can postulate that with high uncertainty, task interdependency is likely to increase because the need for varied resources is increasing and to some extent undefined. The highly technical research team though not necessarily interdependent around tasks, may require interdependence in some cases where information is widely shared. This is difficult to generalize and must remain vague until further concrete examples are explored.

Where interdependence and certainty-uncertainty become highly interactive is around the issues of mutual influence. The requirements for mutual influence are high when inter-
dependence is high and uncertainty is high. This is due primarily to the high need for on-line problem-solving and sharing of information. The other extreme exists when interdependence is high but certainty is also high. Then, the need for mutual influence is low. The implication of this for team capabilities are many. Communication patterns must be highly effective, overlapping roles become a necessity, and norms must legitimize the act of mutual influence. This would also imply a requirement for sophisticated development in terms of the ability to change and adapt and look at the effectiveness of internal processes.

Again, a brief set of concrete examples are in order. The surgical team has high interdependence but the need for mutual influence is low because the task and procedures are clearly defined. The health care team, however, is high on both dimensions and requires high mutual influence. The quality of interaction and communication required is very different from the surgical team primarily because of the nature of the work to be done. Relatively speaking, the task of performing a surgical operation is inherently less ambiguous and less uncertain than the task of comprehensive care. The basketball team requires interdependence and mutual influence to a lesser degree than the health team because plays become routine, and the task demands are relatively predictable.

The task dimensions outlined above have implications for team structure and processes. Leadership patterns should vary
depending on the requirement for mutual influence. A highly authoritarian leadership style would not be appropriate for a team which required significant amounts of on-line problem solving and mutual influence.

Roles become more ambiguous with uncertain and interdependent tasks. To the extent that they are rigidly defined they can impede optimal team functioning.

Decision-making patterns, norm structure and methods for resolving conflict will also vary with these task dimensions. Before going into detail on the implications for group processes, it is necessary to consider another set of relevant dimensions.

**Autonomy Dimensions**

These dimensions are far broader and less clearly definable than the task dimensions outlined above. This is primarily due to the fact that they include all factors that impact on the team outside of the tasks required to get the work done. Some of them are within the control of the team, others are environmental given. In either case, they are realities which impact on the effectiveness of team functioning and therefore require attention in any thorough diagnosis of team development needs. The implications for educational intervention vary with the degree to which the team has control over modifying the nature of these dimensions. There is also interaction between the autonomy dimensions and the task
dimensions. Certain environmental givens will be more or less appropriate given the nature of the task and will either seem to support or drain the energy directed towards the work. One of the primary purposes of diagnosing this aspect of a team's context is to determine what factors must be managed, and how, if maximum energy is to be directed towards the work.

Role Prescriptions

Team members bring with them a set of expectations about the work they should be required to do. To the extent that these are rigidly defined, they may hinder or help the functioning of the team. Given that a team exists because of a necessary degree of interdependence it is highly likely that members come with varied skills and resources. The crucial issue to be explored is whether the presumed expectations are consonant with the work to be done. The higher the interdependence around the work to be done, the higher the need for integration and coordination of role expectations. The higher the uncertainty of the work to be done the higher the need for role flexibility, overlap, and potential for role negotiation during the ongoing operation of the team.

There are primarily two factors that make up this dimension. One concerns the degree of loyalty to the professional reference groups from which individuals come. It is postulated that the higher this loyalty, or identification, the more difficult it will be for individuals to modify their roles to
meet necessary task demands. At the same time, this loyalty affects the degree to which individuals are able to see their primary responsibility to the team instead of to the reference group from which they come. In the cases of low interdependence and/or low uncertainty, the reference group phenomenon will have little impact on team effectiveness. As interdependence and/or uncertainty increase, reference group identification can get in the way of effective structure of processes.

The other factor that contributes to this dimension is the degree of heterogeneity of team members. Heterogeneity is determined by skill differences and differences in orientation to the team itself (dispositional variations). While heterogeneity may be necessary for highly complex tasks requiring a variety of skills and resources, the integration of such skills becomes difficult. The norms expected by individuals may vary with their backgrounds thus creating conflict around the appropriate norm structure for the team. Conflicting priorities may result from differing orientations toward the work to be done. Communication becomes more difficult due to the different "languages" members bring from their varying backgrounds. It is evident that heterogeneity contributes to the resource requirements of a team but at the same time must be managed appropriately through processes which allow necessary integration for interdependence to occur effectively.

The degree of professional loyalty and the degree of heterogeneity must be identified in order to diagnose how
they impact on the task demands of a team. Two examples serve to make this statement more concrete. In a health team professional loyalty is generally high leading to role expectations which don't allow for flexibility and integration required for the highly interdependent and uncertain task of comprehensive health care. The result consists of conflicting priorities and role expectations, as well as conflicting expectations for the appropriate norm structure. The same phenomenon can occur in an executive management team where reference group loyalties are with the departments from which members come. The same conflicts result and there is developmental work required in order to achieve integration and support around the work required by the team.

When task interdependence is low, role prescriptions do not effect the work to be done to such a great degree as outlined above. It appears, therefore that the relationship between the two dimensions is a crucial determinant of developmental needs. One can also postulate that the interaction of role prescriptions with the group development framework outlined in Chapter 2 is another critical factor. The stronger the role prescription, the more difficult the group development process becomes because conflicts in expectations serve to impede resolution of the critical issues.

The importance of this dimension certainly has implications for the focus of team development intervention. Where it greatly impacts on team interdependence and coordination
the major focus necessarily falls out around the issue of role
negotiation and the capability to make it an effective and
ongoing process.

Organizational Constraints Dimension

This dimension consists of factors that are primarily out
of the control of the team itself but are important from the
team perspective to the extent that it must manage the con-
straints in order to get the work done. The discussion of
this dimension is also intended to suggest appropriate organ-
izational structures for teams varying along the task dimen-
sions outlined above.

The degree to which the organizational management dicta-
tes the priorities of the team is one aspect of this dimension.
It directly affects the autonomy and freedom that a team pos-
sesses in determining its own course and style. Where the
management does spell out the work to be done, and the work is
well defined, and programmed, this presents little obstacle
to the team's effectiveness. In fact, Fiedler supports this
by pointing out that in the case of structured work which re-
quires little on-line problem-solving such authority from the
management seems to insure that work gets done and actually
supports the leader (if there is one) in the quest to see its
accomplishment. In contrast, when the work is highly uncer-
tain and complex such control becomes dysfunctional, and as
Fiedler puts it, individuals cannot be told how to be creative.
This is in line with the Lawrence and Lorsch concept of differentiation which suggests varying organizational structure depending on the nature of the work that teams face.

In the situation where control is high but inappropriate for the nature of the work, the team requires the capability to initiate some kind of negotiation with the management. It is hypothesized that within such a structure few teams become regenerative because of the lack of freedom to change its course and evaluate its priorities. Thus, it is highly likely that within such an organizational context a team will not have reached the developmental stage that is characterized by the capability to manage the constraint, influence it, and become self-determining. This suggests that a key result of thorough diagnosis along the task and autonomy dimensions would be a need to further the developmental process when the dimensions are incongruently situated (i.e. highly uncertain tasks with high organizational control).

This dimension is not as critical in the case of a team working on highly routine tasks. Then the control by the system, through assigned priorities and reward systems can be highly functional.

The other aspect of this dimension concerns the relationship of the team with other groups in its organizational context. When the task requires interaction across teams it may be around uncertain tasks, or highly certain tasks. In the latter case, the relationship is clearly defined, and there
may be little need for mutual influence. In the former, however, the capability to learn and work with other units becomes critical and requires the developmental process to reach a regenerative stage making interchange possible without threatening the team's identity (Mills). This becomes particularly crucial when a team is highly different in profile from others which it must deal with (Lawrence and Lorsch concept of integration and differentiation).

These two sets of dimensions, Autonomy and Task Kitchens define, what one might call the life space of a team. It composes the set of demands which directly determine the team profile (see figure 2). If one takes this perspective then the developmental phase in which a team is situated, and the phase to which it must move are dependent, primarily on where the team falls along the dimensions. During the course of discussion on the dimensions reference was made to the group processes that a team needs to acquire to meet the demands resulting from the life space. It is now appropriate to look at these in more depth to determine how they interact with the dimensions outlined above to produce a complete team profile.

In referring to the figure which illustrates the team profile, the developmental stage, and the group processes are drawn intentionally internal to the team itself. The justification for this is that these two sets of dimensions are what
Figure 2
The Team Profile

Team
Developmental Stage
Group Processes:
Indicators Of Developmental Stage

Certainty-Uncertainty

Task Dimensions

Organizational Constraints

Interdependence

Role Prescriptions

Autonomy
become the focus for change in team development. They are what are most in control of the team itself, and therefore the primary determinant of effectiveness. There are two ways in which these two factors must be considered. First, in getting a picture of the team at present it is necessary to find out where it is along the developmental process. The process variables are closely linked to the developmental process and it is postulated that they become more sophisticated as a team moves towards a regenerative position. The issue that still remains is how far a team must move to function most effectively. As discussed earlier, this depends primarily on the independent task and autonomy dimensions. There are a few conditional statements that can be made about the dependence of stage of development on the two sets of dimensions. These will be outlined, and then the processes to be observed and influenced will be discussed with the primary purpose of completing the diagnostic framework.

**Developmental Stage and the Team's Demand System**

1. If a team is high along the interdependence and uncertainty dimensions, thus requiring mutual influence, it will require movement towards a regenerative stage for optimal team effectiveness.

2. If a team is highly autonomous because of the appropriateness given high need for mutual influence, it will require movement towards a regenerative stage for
optimal team effectiveness.

3. If a team faces certain tasks, thus requiring low mutual influence, a regenerative capability is not necessary, and in fact working towards that stage may be a misuse of team energy and time.

4. If the Task and Autonomy dimensions are not appropriately matched (as outlined above), development in and of itself will not produce optimal team effectiveness but moving towards a regenerative stage will enable a team to alter, to some extent, the environmental givens.

There are numerous statements that can be made of the kind mentioned above to define the relationship between the developmental requirement and the team demand system. What is crucial, however, is not to itemize the specific variations but to generalize for the purpose of a diagnostic framework. What is apparent from the above is that some teams require a high level of development while others can function optimally at a lower level. We can regroup the stages outlined by Mills and Schutz to better illustrate this point as follows:

**Intermediate Teams:** A team is at an intermediate stage if it has reached stage three, having dealt with the issues of Commitment, Authority, Intimacy and Work. With high certainty of task, and low autonomy there is little need for movement towards a higher stage. Since self-determination and regenera-
tive capabilities are not demanded.

**Advanced/Regenerative Teams**: A team is regenerative if it is able to change its priorities and methods of work, and effectively influence its environment, learning from it. This is a requirement when mutual influence is required and a team is relatively autonomous.

Thus it is possible to define what stage of development is required, and therefore to determine developmental needs by classifying the team along the Task and Autonomy dimensions which determine, then, how far it needs to move developmentally. The work for the diagnostician is to determine both where the team is currently situated and where it must move as well.

What has been outlined so far is a checklist of dimensions which determine the profile of a team. Normative statements have been made concerning the optimal interaction of the Task dimensions, Autonomy dimensions and Development dimensions. The target for improvement, however ultimately lies in the team processes which allows it to manage its demand system appropriately and effectively. In order to move developmentally, processes must be looked at and influenced. The assumption underlying this statement is that the focus of team development is not on the demand system itself but rather on the internal processes which are in control of team members. Ultimately, depending on the environmental realities, the processes a team possesses determine how well it can deal with
its life space. To alter the processes, various foci of interventions may be required, ranging from knowledge to attitudinal change. This will be explored in more depth in the next chapter. For now, it is important to outline the relevant processes to observe, thus completing the diagnostic framework.

**Group Processes—Indicators of Developmental Stage**

The primary group processes to look for in doing an adequate diagnosis of a team's current stage of development are as follows:

1) Decision-making patterns
2) Norm Structure (communication, feedback, etc.)
3) Leadership Patterns
4) Role Relationships
5) Conflict Management

**Decision-making Patterns:**

Schein\(^6\) identifies six methods by which groups make decisions:

--decision by lack of response (silence is consent)
--decision by authority (leader makes final decisions)
--decision by minority (a few "railroad" the decision)
--decision by majority (vote is taken)
--decision by consensus (minority understands and abides)
--decision by unanimous consent (all agree)
These methods are overlapping and occur within the same team often. However, usually there are a few ways which dominate the process (related to the norm structure). The normative posture on what style is appropriate depends both on the developmental stage to which a team must move (to be regenerative, the assumption is that concensus decisions will be required if commitment to change is to be maintained; decision by authority or minority would not be appropriate), and on the task dimensions by which it is characterized.

**Norm Structure:** The unwritten rules of a team reflect to a large degree its developmental stage. If it is legitimate to question priorities, goals, and ways of work, it is likely that a regenerative stage has been reached indicating flexibility in structure.

**Leadership Patterns:** Fiedler\(^7\) directly correlates leadership patterns with the nature of the task dimension. The highly structured tasks requiring low mutual influence can fare well as an authoritarian or hierarchal structure of work. The other extreme requires shared leadership because of the wide distribution of knowledge, resulting in no one expert to assume the power of sole leadership. One can also examine the task and maintenance functions outlined by Bennis\(^8\) which define the distributed leadership role. To the extent that these are fulfilled, the team has moved through the instrumental stage
of development. Where interaction needs are high (along task dimensions) the requirements for the fulfillment of all task and maintenance roles becomes crucial.

Role Relationships:

The boundaries between roles become more difficult to define as the task uncertainty grows. They also become more difficult to modify as the role prescriptions grow in strength and impact on individual behavior. The capability to negotiate role expectations is crucial with high interdependence and mutual influence. Current role relationships define characteristics of the leadership patterns, norms, and the way the work gets done. The more flexible they are, it is postulated, the higher stage of development that has been reached.

Conflict Management: Ranging from "smoothing" to open "confrontation" styles of managing conflict, the impact of this factor and team effectiveness grows with the need for mutual influence. It is difficult to identify what style of conflict management might occur in any particular stage of development. It is hypothesized that when issues of commitment, authority and intimacy have been resolved, a more open and confronting style of conflict management will emerge. This is primarily due to the fact that a foundation is developed for a regenerative team characterized by the ability to change course, look at itself and accept conflict as
legitimate and growth producing.

This classification of group processes is arbitrary in the sense that they are overlapping in the data they indicate about the stage of development of a team. They should serve as one way to organize behavioral data about a team in completing a diagnosis of developmental needs. In the next chapter the focus will be on how to make use of these categories in using the diagnostic framework.

**Summary**

At this point, it is necessary to summarize what has been developed from the initial reference to group development models. We have considered the given that teams are unique due to their task demands and organizational environments in which they must function. From there we moved to consider what dimensions differentiate one team from another. Two categories of dimensions were defined and their interactions explored. These dimensions, put into the perspective of a diagnostic framework are the independent variables in the system. The developmental phases, and the group processes become dependent to the extent that normatively they are determined by the task and autonomy dimensions which define the team's profile. There is an implicit assumption in organizing the team profile in this way: a thorough diagnosis involves both a picture of the current state of development as
well as a judgement as to where the team must move in terms of development, and consequent process. A summary of the diagnostic process is illustrated in figure 3.

The team profile has been established as a set of dimensions which differentiate a team as an unique group with unique developmental requirements. The interaction of the developmental dimension with the task and autonomy dimensions defines the specific developmental requirements. The group process dimensions were defined as indicators of the current stage of development. The merit of the team profile will ultimately depend on the usefulness to the diagnostician. In order to insure that such a transfer to the pragmatic side of the model comes about, a set of application issues are defined and discussed at length in the following chapter.
Figure 3
The Diagnostic Flow

What is the level of Interdependence Required?

What is the degree of certainty or uncertainty of the Task?

How do these two factors overlap to determine level of mutual influence required?

What are the autonomy dimensions relevant to the team?

How do these interact with the task dimensions?

What are the group processes currently operating? What developmental Stage do they imply exists?

Given the answers to the above, where should the team move towards (developmentally)
Chapter IV

Application of the Team Profile

The purpose of this chapter is to outline the critical issues that need to be addressed in applying the team profile framework to team development efforts. The goal of the discussion that follows is not to give answers, but rather to provide systematic frameworks for choosing appropriate courses of action. It is the hope of the author that as the team profile is applied in actual team settings, the critical issues will become better defined, and the alternative approaches to resolving the issues will become better understood.

The team profile has been developed as a diagnostic framework in which to determine team development needs. The task and autonomy dimensions were defined as those which differentiate teams as unique groups requiring varying levels of development. The group process dimensions were explored as indicators of the current level of development. The purpose of this chapter is to insure that the team profile is sufficiently understood so that it can be effectively used as a diagnostic tool. The method chosen to facilitate the movement from the theoretical framework to its application is to identify the critical issues that must be addressed in making choices about appropriate intervention strategy into ongoing teams. They can be stated as questions as follows:
1. How can one go about determining specific team development needs from the task and autonomy dimensions which define the team profile?

2. What data needs to be collected in order to determine the current team profile, indicating the current stage of development? What are the critical issues that determine effective data collection?

3. How does the role of the consultant impact on the team development process?

4. What does the team profile suggest for focus and depth of required intervention?

A discussion of these questions will serve to define alternative ways for managing the critical application issues in using the team profile as a diagnostic framework for determining team development needs.

**Determination of Developmental Needs**

In developing the task and autonomy dimensions which define the team profile, general statements were made about the interaction of the developmental frameworks with these environmental dimensions. It is the intent of this section to become more specific about the ways in which the task and autonomy dimensions determine the particular developmental needs of a team in question. The team profile's function in determining these needs can be classified into two parts:
1. The developmental dimensions, indicated by the group processes at work serve to determine what the critical issues impeding growth are at any given point in time. These critical issues are the major human, emotional and process concerns that are preventing the team from moving to a higher stage of development.

2. The interaction of the developmental dimension with the task and autonomy dimensions serves to indicate where a team must move developmentally to successfully manage the work to be done.

Thus, the team profile dimensions can give both a picture of where the team is currently situated, as well as where it must move developmentally. The former is a descriptive picture of the current state of affairs, the latter is a normative picture of what is required by any team development effort. Further discussion of how to make each function more operational will ensure that both the descriptive and normative outputs from the team profile are feasible.

**Descriptive Model**

In order to determine where a team is currently situated it is necessary to look at the group processes operating as well as the content to which the processes are applied. In Mills' framework, the hypothesis is put forth that the higher the stage of development, the more flexible and adaptable are the processes employed by the group. This flexibility can be
tested by the way the group approaches very different kinds of tasks. If the structure and process can alter to suit the task dimensions at any given point in time the group has moved to a regenerative stage in which it can easily evaluate and alter its goals and procedures, by continually learning about its task environment.

The dilemma facing most work teams mentioned earlier, i.e. being forced to start on the work before resolving the critical issues of commitment and authority, is indicated by the way the work gets done. If there is high conflict over roles, and work procedures, or lack of participation on the part of members, it is highly likely that earlier developmental issues have not been resolved. Some teams will never exhibit such dysfunctional behavior because the task does not require the resolution of the commitment and authority and intimacy issues. The assembly line is an extreme example where the work is so programmed that required group processes and development is minimal. The health team, on the other hand will exhibit problems in managing the uncertain nature of the work if these earlier critical issues have not been resolved. Successful role negotiations (required by the uncertainty of the work) will not come about unless the human concerns defined by the critical issues of commitment, authority and intimacy have been resolved. By providing members with skills in decision-making, communication and other group processes, one is laying the foundation which gives the group the capability
to resolve the critical issues so that it can then appropriately address the work issues imposed from the organizational context.

A systematic way for defining the critical issues impeding the team from achieving its work, which in turn defines the current developmental stage is in order. If one considers all the data available on the groups processes and problem focus, then the task of the diagnostician is to organize this data to indicate what the current stage of development is. By dividing the data into those processes which obstruct the work getting done and those which support the work getting done, and then classifying them according to the critical developmental issues, the current stage of development is defined. The supporting processes represent those critical issues which have been resolved by the team. The obstructing, or inhibiting forces are those representing the critical issues that remain unresolved. The goal of educational intervention then becomes that of helping the team resolve the critical issues impeding movement to higher stages of development by educating members in the processes required to address them. This diagnostic process is illustrated as follows:
The restraining forces can also be classified according to those that team members have control over, and those that are in control of the environment, or individuals outside of the immediate team context. For example, if the decisions to join have not been resolved by particular individuals (representing commitment issues), the force may represent factors in control of team members. An ability to share expectations and to negotiate roles could facilitate the joining up process. On the other hand, if the decisions to join is ob-
structured because individuals have been forced to enter the
team without any choice, then the origin of the obstructing
force lies with the environment and requires change in organ-
ization policy. The latter force can only be addressed by
educational intervention into the organizational environment.
One way that this can come about is by helping the team to
move to a regenerative stage in which it has the capability to
manage its own environment, and therefore to influence it as
well. This creates a dilemma for the consultant. The en-
vIRONMENT is preventing a team from resolving earlier critical
issues, and yet these must be resolved in order to influence
the environment. Depending on the magnitude of the environ-
mental and internal commitment forces, the choice will be either
to work solely with the team or to address the organizational
environment simultaneously. The crucial point here, is that
there is no one clear cut right answer. Any reduction of
restraining forces will facilitate some movement to a higher
stage of development. While earlier issues must be resolved
before moving to a higher stage of development, it is also
hypothesized that the critical issues are recurring over time
and can never be entirely resolved within the current stage.

Thus organizing the available data according to the
critical issues supporting and obstructing the work gives an
approximate snapshot of where the team is currently situated.
The next task of the diagnostician is to determine where the
team is required to move developmentally. This is directly
determined by the task and autonomy dimensions which define the team profile. A look at these dimensions systematically produces a normative description of where the team must move, defining the breadth of educational intervention required.

**Normative Model**

The level of development required by a particular team can be determined by carefully analysing the task and autonomy dimensions and how they interact with the critical issues of the developmental framework.

Looking first at the task dimensions, one finds that as interdependence and uncertainty increases, the required level of development increases as well. This is primarily due to the mutual influence required to get the work done effectively. Roles are not clearly defined, tasks are not programmed, and resources are widely distributed. Such characteristics of the task environment induces a high need in flexibility and adaptability, which, by definition, a group which has reached a regenerative stage. At the other extreme of low interdependence and/or low uncertainty, the developmental stage required is minimal. While it is unlikely that a team can function effectively at less than a stage three of a Mills' framework (where instrumental roles are developed implying procedures for getting the work done), the need for self-determination, flexibility and change is far reduced because of the programmable nature of the work. Thus the inter-
action of the developmental stage required and the task environment can be determined by the following flow:

```
  Task Environment
     / \
Uncertainty of Task   Interdependence
   / \   / \ 
High  High   Low  Low
     / \   / \ 
Interdependence   Interdependence
   / \   / \ 
High  High   Low  Low
     / \   / \ 
Regenerative Capacity Required   ? Intermediate Capacity   Intermediate Capacity
   (A)   (B)   (C)   (D)
```

Before examining the endpoints of the flow it is necessary to again distinguish different levels of interdependence from each other. This distinction becomes crucial when determining the nature of required mutual influence which in turn defines the required stage of development.

a. Sequential interdependence is a condition in which one member cannot do his task until another has completed his own.

b. Parallel interdependence is a condition in which
members work simultaneously on different tasks which contribute to a common end product.

c. Pooled interdependence is a condition in which members must work together on common tasks to produce an end product.

The latter requires the greatest amount of mutual influence because it implies on-line problem-solving. The first two may require far less depending on the uncertainty level of the tasks the team faces.

To the extent that there is variation in the nature of interdependence required, the required developmental stage will vary. Thus the flow outlined above is simplified intentionally to allow for a generalized framework to emerge.

Now, examining the endpoints:

A. With high task uncertainty and the degree of interdependence required high, the kind of interdependence might vary from sequential to pooled but in all cases because of the task uncertainty a regenerative capability would be necessary to allow for flexibility, self-determination and adaptability to the changing team environment.

B. With high task uncertainty it is unlikely that low interdependence would be appropriate because of the lack of clearly definable roles. In fact, if a team follows this path it serves as a warning of inappropriate structure and process.
On the other hand, in the case of a high technology research team, for example, interdependence required might be of a parallel nature in which members contribute simultaneously to and end product. During the course of work the level of required mutual influence may be low because the resources are distributed among members in a clearly defined way requiring little sharing across individual boundaries. In that instance regenerative capabilities may be unnecessary but certainly an intermediate stage of development characterized by a resolution of the critical issues of commitment, authority, intimacy and work will be necessary.

C. With low task uncertainty, any kind of an interdependence required implies a mutual influence of a very different nature than in case A. This is primarily due to the programmable nature of the work to be done. Thus roles are more clearly defined and flexibility of structure is not required.

D. This point defines the most "simplified" task situation for a team. Rules can be written, roles clearly defined, and interdependence of any kind is low. In this case pooled interdependence is unlikely since tasks can be separated, thus being of parallel interdependence in nature.

The difficulty with such a flow is that it is likely to be viewed as segmented and well defined. The perspective that must be maintained is that at any given point in time the path can be defined, but longitudinally it is constantly changing.
This is to say that over the course of a team's life, tasks can become more certain; the nature of interdependence may also change as this learning occurs. This comes about as the team develops the capability to manage its environment, learn from it and hence develop technologies which produce more programmable tasks. A health team at the onset of its life faces very uncertain tasks in the delivery of comprehensive care. It is hypothesized that as the environment becomes more familiar, in terms of the nature of the patient population and their needs, required treatment can become more systematized to produce a higher degree of programmable tasks. Roles may become more clearly defined as alternative strategies for treating a particular problem are tested. Finally, some procedures, determined as most appropriate for a given recurring situation, remove some degree of uncertainty in the task of comprehensive health care.

It is important to view the developmental requirement as falling along a continuum rather than being discretely defined for any given task situation. What can be generalized is that the developmental stage required increases with the amount of uncertainty and interdependence required. This is primarily a result of the responsibility for organization and problem-solving being left with the team, and its members, rather than with written rules established by the system. Such a responsibility increases demands on the team which heighten the importance of extensive processes allowing for on-
line problem-solving and adaptability.

The dimension of mutual influence, which defines the quality of group interaction required, is a composite of the task dimensions of uncertainty and interdependence. The group processes required for any given team are defined by the stage required. The regenerative team has the capability to examine its own processes, change its course and adapt to its changing environment. This is what distinguishes it from an intermediate level team which maintains processes to get the work done. Flexibility is the key dimension here. As roles become less clearly defined due to high uncertainty and/or high interdependence, and on-line problem-solving is necessary to handle the changing environment, individuals are required to deal with each other as individuals rather than as role occupants, or rule maintainers (since the presence of fixed rules is inappropriate). Thus the quality of human interaction required is much higher. Such adaptability and growth which characterizes a regenerative team can only come about when the earlier issues have been resolved.

The autonomy dimensions determine what capabilities a team requires in order for it to manage its organizational environment. While they are givens, and certainly have implications for the larger system intervention, they do impact tremendously on the required stage of development.
Role Perscriptions: When members of a team have strong loyalties to their reference groups the issues of commitment and inclusion become most critical when high interdependence around uncertain tasks is required. The movement towards integration as a team member becomes a more difficult process (higher resistance) and a more necessary process if true flexibility and adaptability are required, as in a regenerative team situation. The health team serves again as an example. The physician comes with strong professional loyalties which dictate that he work as the only expert on patient problems. Movement into the interdisciplinary team requires that he perceive the task of health care as expanding to include social and economic patient problems as well which require the contribution of other experts, from other disciplines. This change in perspective, requiring a different role perscription meets up with resistance because of the strong professional loyalty that has evolved out of his professional training. The commitment issue will only be resolved when members have the skills to openly deal with the individual resistance of members who come from varying disciplines.

Organizational Constraints: If a team must, in any way, interact with other parts of the organization to get its work done it will require some kind of regenerative capability. The acceptance of outside input, and the need for it become particularly crucial with uncertain task demands. A team
must resolve all of the internal issues of inclusion, control and affection (or commitment, authority, work and intimacy in Mills' framework) if it is to be able to give and take from people outside of the team context. The nature of the interaction, however, determines what capability is required just as the nature of the mutual influence did around the task dimensions.

Thus a highly structured task will demand possibly only informational transfers across teams while a more uncertain task will require more in depth interaction outside of the team context. The higher the discrepancy between the actual organizational constraints and the appropriate ones, the greater the need for negotiating skills, management skills and growth capabilities on the part of the team. The inappropriateness results in excess control over the team by the organization which prevents a team from becoming self-determining and thus regenerative in nature.

It is important at this time to present a general model of the descriptive and normative viewpoints that have been discussed. The specific process issue has been left out intentionally because they become the point of focus in the next section on data collection requirements. In this model, they become the indicator of developmental stage and capability.
From chapter three we have the team profile:

The life space is determined by the independent dimensions (task and autonomy). The developmental stage of the team in question is determined by examining the group processes at work. Then, by considering the interaction of the developmental stage with the other dimensions, an ideal profile can be drawn which indicates the developmental needs of the team.
required to meet its team profile demands. The focus, then of intervention becomes the team itself and its internal processes.

The restraining forces outside of the members' domain require sophisticated development to be resolved. This is primarily due to the fact that a team cannot interact effectively with its environment until it has resolved internal issues of commitment, authority, work and intimacy. Thus, again we are arguing that an outward focus aimed at developing control over its environment requires a regenerative stage of development.
which insures the integrity and self-determining nature of the team. Then, interchange becomes less threatening and far more feasible. The team boundary must be strong in order for it (the team) to allow for interchange. Such strength is easy to develop with programmable tasks (the identity, or task responsibilities are clear cut) thus requiring less of a regenerative capability. Another way of looking at this same phenomenon is that programmable tasks will require only routine interaction with the environment, thus presenting low threat to the team's identity.

A level of abstractness was maintained throughout this discussion in order to generate a general framework of the team profile and its relationship to the developmental process. The integration of the dimensions which define a unique team serves as a diagnostic instrument which can be used to define required team interventions. The group process dimensions outlined in chapter three now become the focus of discussion because they serve as a mechanism for determining the current development of a team and the required intervention for movement towards a higher level. Data collection issues are discussed to insure that accurate diagnosis can occur.

Data Collection Issues
Given a framework for organizing the data needed to define a team profile, it is now necessary to determine what
must be collected and the process by which this can be done.

There are essentially two sets of data that must be collected in filling out the team profile. The environmental givens, defined by the task and autonomy dimensions make up that part of the data which can be obtained at any given point of a team's life. This is not to say that they will not change over time (as the tasks become more or less certain or the organizational constraints are modified) but rather that they are structural variables which can be determined in a snapshot. They determine the life space of a team, or the set of demands acting on a team which determines the required stage of development. Thus by collecting this data, one determines both a descriptive model of the demand system as well as a normative model of where the team must move developmentally to meet those demands.

The other set of data revolves around the group processes which a team has developed in order to manage its "state of affairs". These processes are more difficult to identify with a snapshot and require more study over time primarily because they are behavioral rather than structural in nature. The distinction between the two kinds of data is not clearly defined but it is postulated that required methodology varies with each set. The group processes serve to indicate where the team is currently situated developmentally. The more flexible the processes, the more developed the team. From this, one can determine the restraining forces which are pre-
venting further development, thus defining the focus of intervention. This data is more difficult to collect primarily because it is subject to far more interpretation than the structural data relating to the task and autonomy dimensions. Behavioral data determining the processes at work must be linked to the critical issues of development and therefore becomes a matter of subjective judgement. What becomes a key issue here is how to organize the data in a way which is most helpful to the team in understanding its own needs for development. This becomes a topic for further discussion in the next section on the role of the constant.

Thus there are two sets of data to collect. There relationship to the model discussed previously can be shown graphically:

```
<table>
<thead>
<tr>
<th>Group Processes</th>
<th>Environmental Givens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decision-making Patterns</td>
<td>Task Certainty</td>
</tr>
<tr>
<td>Norm Structure</td>
<td>Interdependence Required</td>
</tr>
<tr>
<td>Leadership Patterns</td>
<td>Role Descriptions</td>
</tr>
<tr>
<td>Role Relationships</td>
<td>Organizational Constraints</td>
</tr>
<tr>
<td>Conflict Management</td>
<td></td>
</tr>
</tbody>
</table>

↓ <-- --- Data Organization --- → ↓

Developmental Stage        Life Space Dimensions

Team Profile
```
The nature of the group processes is contained within the team itself and therefore the appropriate data source is found there as well. On the other hand, the environmental givens as defined by team members are perceptual and not necessarily the reality of the demand system. From a consulting point of view, the task is to enable team members to verify their data through concrete examples—e.g. defining a task environment as relatively certain requires justification with programmed work methodologies.

There are primarily three methods of data collection available:

1. Direct Observation
2. Individual or group interviews
3. Questionnaire or some other survey instrument.

All three methods compliment each other and optimally they should be used together to verify data collection.

Direct observation affords the consultant the opportunity to collect behavioral data on the group processes operating. This in conjunction with reported data through interviews and written instruments serves two purposes. It points out discrepancies between actual behavior and reported behavior which determines the extent to which a team is aware of its own functioning. One hypothesis is that the higher the discrepancy the more likely it is that the team has not reached a regenerative stage of development, therefore not being able to look
at itself. It also serves to get individual's perspectives on the quality of work being done and the nature of the relevant problems perceived by members.

The interview method allows individuals the freedom to report what is relevant for them, (indicating developmental stage) and for the interviewer to clarify and probe any issues that are left undefined. The opportunity for interaction builds in the flexibility to collect a maximum amount of data.

Surveys are more difficult to design in such a way that they do not feed the answers to the respondent. Questions can be misinterpreted without a method of checking this occurrence. They are therefore recommended as supplementary devices.

Data Collection

Behavioral
- Observation

Attitudinal
- Surveys, Interviews

Group Processes
- Decision-making
- Norm Structure
- Leadership Patterns
- Role Relationships
- Conflict Management

Reported perceptions
- Interviews
- Surveys

Task Certainty
- Interdependence
- Role Prescriptions
- Organizational Constraints

Data Organization

Interpretation
- Use of conceptual Frameworks

Developmental Stage

Life Space Dimensions

Team Profile
The dotted lines indicate that data in each category supports the other, and that the division is not a clear one.

It needs to be emphasized that the process by which data is collected will certainly influence its usefulness and validity. One can design instruments to collect perceptual data in the group processes and climate but if the relevance of such an undertaking is not perceived by the team, distorted results are likely. This becomes the focus of the next section on the consultant role and is highly linked to the developmental stage in which the team is situated. The dilemma then, is how to collect data in a relevant way before having the data to know what is relevant. The management of such a dilemma comes with the flexibility to alter procedures and focus as more and more is known about the developmental stage, (a regenerative capability to deal with an uncertain task). Thus there is no programmable procedure for data collection. The alternatives are presented in the framework of the team profile concept to guide the diagnostician.

Thus the data collected is aimed at answering three questions:

1. Where is the team currently situated developmentally?
2. What are the task and autonomy dimensions which determine the team profile?
3. What is the required level of development suggested by the profile?
The use of the group process dimensions in defining the current stage of development was discussed in chapter three to some extent but a reiteration at this point will serve to clarify the data collection process.

A. The more flexible the procedures, leadership functions and norms, the more likely it is that the team has reached a regenerative level of development.

B. The more capability there is for actually dealing with process issues, the more developed the team is.

C. The more structure imposed, and the less negotiability inherent in the group operations, the more likely the team is in an early stage of development (this is appropriate for certain tasks which require low interdependence or interdependence that requires little mutual influence, i.e. parallel or sequential).

D. The more the group can apply its processes to dealing with its environment effectively (i.e. having more control) the more regenerative it is.

Each individual who makes use of the team profile will need to develop his own style of data collection. The point being made in this section is that there are a variety of ways to collect data to determine the quality of interaction ongoing in a team, which in turn determines the developmental stage. In general, what is required is a focus on how team members behave in response to the work issues they are facing.
The very presence of an outside consultant provides an additional source of data in the sense that the interactions between the team and the consultant will also indicate the foundation for human interaction that exists in the team setting, (thus the developmental stage). This will be extensively discussed in the next section on the role of the consultant.

The Role of the Consultant

To this point we have discussed the team profile in the context of a diagnostic tool which can be used in determining team development needs. It has had implications for the data required to create an accurate diagnosis and has provided a checklist of dimensions which serve to determine developmental needs. The question which remains is how to make use of this framework in an ongoing consultant-team relationship. If one defines an intervention as any action which comes between the ongoing process of a system, then the use of the team profile framework as a diagnostic instrument is in itself an intervention. One must view the diagnostic phase, however in the context of the ongoing relationship. The Kolb-Frohman\(^2\) consulting model is a relevant context in which to place the framework developed (see Figure 4).

The primary reason for considering the consultant-team relationship and its dynamics over time is that it directly affects the developmental process of the team. Not only does
The Relationship of The Team & Consultant

Inclusion  Commitment
Control    Authority
Affection  Intimacy

Inclusion  Integrity
Control    Interchange
Affection

Phases of Development

Scouting
Entry
Diagnosis
Planning
Action
Evaluation
Termination

Figure 4
The Kolb-Frohman Consulting Model

Team Profile
the consultant act as a facilitator of growth and development by using his diagnostic and intervention skills, but he enters into the team profile as an environmental given. Thus his relationship to the team, and thus his effectiveness as a consultant depends on the team profile (specifically its developmental stage since only at a regenerative stage can sophisticated interchange occur).

It is helpful to go through the stages of the model in order to make the role of the consultant who uses the team profile more explicit.

Scouting and Entry: These phases are characterized by initial contract-setting and sharing of expectation around the roles to be taken on by the client and consultant. Certainly during these stages there is an opportunity for the consultant to collect some data on the nature of the team profile both through observation of group processes (data on developmental stage) and through interaction with team members concerning their perceptions of their own demand system (data on task and autonomy dimensions). The very presence of the consultant suggests that the profile is altered to include a "new member". Thus the reason for the commitment and inclusion issues being so important. Entry questions around the power and authority issues certainly exist as well and it can be viewed as a process of working with the team in moving towards a developmental stage allowing for questioning and self determination
(regenerative).

**Diagnosis:** In this stage the team profile becomes most obviously relevant and useful. It directly affects the planning which occurs in the following stage. Employing the models outlined previously in this chapter, the framework becomes a way of tying the data together in a manageable form. The amount of control and participation in the diagnostic process by team members is directly determined by the developmental stage in which it is situated. Since the phases of the consulting model are overlapping and recycling, the sharing of this task increases as the team profile changes (through progressive development).

**Action and Evaluation:** What occurs in these stages is determined again by the results of the team profile diagnostic instrument. Evaluation criteria are established based on the required developmental stage given the task and autonomy dimensions defined in the diagnosis. The feedback loop to the planning stage involves redefining the team profile based on increased development in the team.

**Termination:** Throughout the consulting process responsibility for direction and control shifts from the consultant to the team. This can occur only as the team resolves the critical issues which impede growth capabilities. The phasing out pro-
cess of the consultant occurs when a regenerative capability has developed and self-determination and interchange can occur due to the maturity of the group processes.

Implicit on the use of such a consulting model are the following assumptions:

1. In each phase data is continually collected which alters the team profile.

2. The relationship of the consultant to the team alters the team profile to the extent that the same developmental issues of inclusion, control and affection must be resolved before effective intervention can occur.

3. The developmental stages through which the team must move are correlated with the stages of the consulting process. In each phase of the consulting model, the critical issues that impede development must be dealt with in the context of the team's relationship with the consultant.

4. Termination occurs when the team has developed a regenerative capability. If this is not required in order to meet the environmental demands, then the consultant relationship is superfluous to the work to be done. (This statement should be viewed as a continuum rather than a "black and white" situation.)

The impact of the rest of the system in which the team lives on the consulting process has been ignored up until this
point. Certainly the degree of autonomy will affect the developmental potential of the team during the consulting process. Thus in the scouting and entry phases attention to these dimensions become crucial while the team may not be ready to deal with the environmental givens, the consultant needs to assume the responsibility in order to insure the success of any developmental effort.

**The Focus and Depth of Intervention**

The team profile serves to identify the developmental needs of a group. It is the intention of this section to develop a conceptual framework for operationalizing the focus and depth of required intervention which is the substance of planned action to increase the developmental stage of the target team.

Any intervention is designed to facilitate the learning of team members. It has already been mentioned that the focus of this learning will depend on the stage of development in which the team is currently situated. Each stage defines the critical issues that must be resolved if the team is to move to a higher level of development. Defining the critical issues is the first step. The second step involves the determination of the focus of intervention which will facilitate the resolution of the critical issues.

There are primarily three foci of interventions to consider:
1. Knowledge

2. Skills

3. Attitude

Each focus of learning (change) defines a certain methodology for intervention because of its implicit depth. As one moves from the knowledge and end of the spectrum to the attitudinal extreme the depth of intervention increases. This implies, as well that the risk involved, and the personal commitment required increases.

While at any given stage of development, all foci of intervention may be appropriate, it is postulated that at the earlier stages group members will not be able to manage intervention of extreme depth because the critical issues of commitment, authority and intimacy have not been resolved. Thus the first requirement is that of facilitating the skill development which will allow the creation of group processes to deal with the critical issues of the earliest stages.

Once the instrumental roles have been established in stage three of the Mills' framework the team is able to begin to look at itself, question its goals and course and become adaptable to a complex environment. This defines the beginning of the regenerative stage where members have resolved the earlier critical issues and therefore can begin to focus more in depth on its own internal processes and growth. It is at this point that the risk involved in focussing on the attitudinal and interpersonnal issues of increased depth becomes
appropriate and relevant to team members.

Just as the group processes observable in the team's operation define the developmental stage in which a group is currently situated, they also define the appropriate focus of intervention. A group in the earlier stages of development lack the skills to negotiate expectations, to employ effective decision-making patterns, to define appropriate norms of leadership and conflict resolution. This difficulty is what obstructs the resolution of the critical issues in the first three stages of development. Thus the focus of intervention becomes a knowledge transfer of concepts on these processes, as well as skill practice on their use of the team concept. Once such skills have been developed, and instrumental roles defined, movement to a regenerative stage characterized by self-determination and flexibility becomes appropriate.

Roger Harrison\(^3\) defines two criteria for choosing the appropriate depth of intervention:

1. Intervene at a level no deeper than that required to produce enduring solutions to the problem at hand.

2. Intervene at a level no deeper than that at which the resources of the client can be committed to problem-solving and change.

Thus while the team profile may indicate that a regenerative capability is required, the initial depth of intervention may be low because of where the team is currently situated. (defining the problems to be worked immediately, and the
members' energy available for working them).

The primary indicator of inappropriate depth of intervention is resistance. At any point in time, if resistance to learning is high, then it is likely that the focus is either threatening to the team because earlier critical issues have not been resolved, or because the relevance of the intervention is not perceived, hence not valid. At the same time with increasing depth of focus, resistance to change increases primarily because of increased risk and because the control of learning shifts more and more to the client involved. Thus the indicator of resistance must be evaluated within the context of both the stage of development in which the team is currently situated, and the actual depth of focus characterizing the intervention.

A general model of how the depth of intervention enters into the team development process is shown in Figure 5. This is a microview of the team development process which occurs within the context of the general consulting process outlined in the previous section. It can be viewed as a recurring set of events throughout all phases of the consulting model. The focus and depth of intervention increases as one moves towards the termination phase, when the team takes on a regenerative capability and is able to continue development by itself because of the resolution of critical issues of previous stages.

The data collection issues discussed in section two become
Figure 5
The Team Development Process

Define the Team Profile
- Current Stage of Development
- Required Stage of Development

--- Data Collection (section II)
--- Developmental Stage (section I)

Is the Current Stage a Required Stage

Yes → Termination

No → Define the Focus and Depth of Intervention

--- Kinds of Foci of Intervention (Section IV)

Intervene

Diagnosis

Evaluation

Planning

Action
relevant during each development of the team profile. The process should be viewed as a continual flow of events rather than segmented procedures clearly defined. The frameworks outlined throughout this chapter serve as a systematic way of organizing the results of diagnostic activities within the team profile framework.

**Summary**

Each question posed at the outset of this chapter serve to fill in the gap between the conceptual model of the team profile and the practical application of the framework to team development. The specific links between the stages of development and the task and autonomy dimensions defining the team's life space were outlined in section 1. Models were presented to make the interactions manageable and useful in the context of team diagnosis. Then, the issues of data collection were explored with the specific emphasis on the group processes as indicators of the current developmental stage and its relationship to the team profile. A broader perspective was taken in section 3 in order to review the impact of the consultant on the developmental process. Finally, the specific focus and depth of intervention became the subject of section 4 in order to close the loop between the diagnostic and intervention phases involved in the team development process.
The questions outlined at the outset of the chapter served to define the critical issues concerning the role of the consultant, the appropriate data collection methodologies and the required depth and focus of intervention. It was the intent of the author to stimulate constructive thought about these issues in order to facilitate the movement from the theoretical understanding of the team profile to its actual use. Only with actual testing of the diagnostic framework, will the critical application issues become better defined and understood. The frameworks outlined in this chapter are designed to aid those interested in doing the testing within the context of their own developmental efforts. They are a product of extensive integration of the author's experience in working both as a consultant and as a team member.
Chapter V
Implications For Curriculum Design

The team profile has been developed as a diagnostic tool primarily for use by the interventionist concerned with improving team effectiveness through appropriate educational intervention. It is the intention of this chapter to broaden the scope of application of the framework by considering the implications for curriculum design in academic settings. The target of intervention becomes the student who is to ultimately enter a team setting, rather than the ongoing team itself. The focus of curriculum design is expanded to include "preparation for team membership" as a major objective. The importance of this application is discussed, and major additions to curriculum design are suggested. Finally, the team profile is shown to be a tool for the curriculum designer in choosing appropriate learning methodologies.

The Importance of Team Membership Training

The existence of teams as the primary work unit in most organizations today is an indicator of the increased complexity of the technology required to get the work done. No longer can one individual manage the tasks without entering into an interdependent relationship with others who offer the variety of resources necessary to meet the uncertain and changing environment characteristic of technological progress. The job responsibilities of these future specialists requires
technical knowledge as well as the knowledge and skills to work in the team setting. An understanding of the dimensions of the team profile which define the nature of the work environment will equip individuals with diagnostic and behavioral skills enabling them to better manage the critical issues which impede team development. Augmenting educational objectives to include team membership training in addition to technical training is a direct response to the current "profile" of the work environment. It is a major intervention which ultimately serves to increase team effectiveness through educational input which occurs before the formation of the team.

While the knowledge explosion may indicate a need for more intensive technical training, and therefore less time available for team training, it is the contention here that both can occur simultaneously and in fact enhance each other by producing a specialist who is able to manage his environment in such a way that he maximizes his own effectiveness. Schren outlines the consequences of the vast technological progress as follows:

1. It acts as a strong stimulant to specialization; the task of a generalist in a world in which the knowledge base is getting larger becomes increasingly difficult.
2. It increases the likelihood of early obsolescence; to keep up in one's own specialty becomes more difficult as the field changes ever more rapidly, leading either to obsolete forms of practice or greater specialization into even narrower areas.
3. As specialization increases, it becomes harder for professionals to work together on interdisciplinary teams because greater differentiation of fields and specialization leads to sets of attitudes and concepts
that can be easily shared only with fellow practitioners in the same or in a related discipline.

It is this third consequence that can be addressed through curriculum changes which are designed to prepare the professional for life in an interdisciplinary team setting. Because it is the professional role that has gotten in the way of required interdependence and team collaboration most profoundly, it is explicitly chosen as the primary focus of discussion. If role prescriptions can be influenced to include attitudes and skills which support team effectiveness, then the probability increases that teams will be more able to manage the critical issues that impede development.

Whether it be the physician of a health team, a manager of an executive team, or an engineer of a research team, an understanding of the tasks, autonomy and developmental dimensions (team profile) which determine team effectiveness will facilitate his adaptation to the team setting. Increased diagnostic and group process skills will enable him to more proactively and systematically manage the developmental process.

**Implications for Curriculum Design**

Recognizing the need to prepare individuals for team membership, it is now necessary to define the ways in which a greater understanding of teams can be incorporated into a school curriculum. Regardless of the particular academic setting, there are primarily two approaches that can be under-
taken to increase learning about teams and the skills demanded by team membership:

1. Introduce specific content about teams within the framework of the team profile. This would include exploration of the task dimensions, autonomy dimensions, group development dimensions and the processes required to increase team effectiveness.

2. Provide each individual with the experience of working in a team setting which will approximate future work environments. Use the team context as a medium in which to teach the technical skills required in the profession.

The first approach is designed to equip individuals with conceptual knowledge required to do adequate diagnosis of team problems. An understanding of the team profile and the dynamics of group development will increase the role of the specialist to include that of diagnostician and group process facilitator. The specific content required will be generalizable across settings, for regardless of the particular team setting in which a specialist will find himself, the necessary conceptual knowledge is the same. Ultimately it is intended that the individual will possess the knowledge and skills to act as a diagnostician in the team setting, as well as an initiator of the process of resolving critical issues of development.

The second approach is designed to get an individual into the team setting as soon as possible so that the knowledge and
skills around teams becomes immediately relevant. Teaching clinical work in a team setting in health schools permits the students to experience the problems created by required interdisciplinary work. The task and autonomy dimension can be experienced directly by creating a setting in the academic environment which approximates the future organizational context in which the student will find himself. Each academic setting will require a tailored design which approximates the real world settings for which individuals are being trained. The appropriate design falls out directly from the use of the team profile. By projecting into the future work environments, a medium for teaching technical knowledge can be created which allows a specialist to develop both technical and as a prospective team member.

Transferring knowledge and skills around teams through curriculum which directly focusses in this area, and implementing technical curriculum in a team setting, will serve to provide an adequate foundation of knowledge about teams, and an opportunity to experience first hand team membership. The two approaches serve to integrate the role of team member with that of technician within the context of professional training.

A more in depth look at the required content and focus of curriculum design and the processes by which learning can be most effectively transferred is the focus of the next section.
Suggested Content and Methodology

There is a set of core content that can be outlined which will help an individual to prepare for team membership. These foci of learning can be categorized along the dimensions of knowledge and understanding, skill development and attitude change, just as educational intervention into an ongoing team. Each category of learning will have different requirements for learning methodology as will be illustrated in the second part of this section.

Knowledge and Understanding: The conceptual input should not vary across settings. By providing students with the framework of the team profile, an understanding of the dynamics of team operation becomes feasible. A complete survey of the group development framework and its interaction with the task and autonomy dimensions prepares the individual to diagnose team development needs. By giving individuals the conceptual tools to look at this work environment, foci of learning around roles, decision-making, communication style, conflict management, goal-setting and the distribution of work becomes relevant. The team profile serves as a vehicle for implementing such a knowledge transfer. By changing the perspective of learning to include a focus on management of the job environment, the profile becomes a framework in which to analyse required group skills. It is rare that professional education includes a perspective on the way the professional's
job interacts with the rest of the system in which he will be living. For this reason alone, individuals enter into a work environment as autonomous beings with little understanding of themselves as part of a total picture. It is proposed that within the context of the team profile, analysis of the task and autonomy dimensions provide a vehicle for determining what group skills will be required for effectively getting the work done.

Skill Development: The necessary behavioral skills required will fall directly from the projected team profile. For example, in a medical school, those that plan to go into community based health care will eventually find themselves working in highly interdependent task groups (due to the complexity and uncertainty of the task). With such a projected profile, required skill level around the conceptual inputs of roles, decision-making, goal-setting, etc. becomes crucial. Learning at a conceptual level about the ambiguity of roles and tasks will not suffice in preparing an individual for team membership. Skill development, by definition will require practice in settings which approximate the future work environment. Thus the conceptual issues outlined in the knowledge category become the focus of skill development to prepare the student to be both a diagnostician and an effective influencer of team processes.
Attitudes: Professionals are traditionally trained as specialists and experts. The primary purpose of their education is to give them the tools to perform a specialized task. The norms and culture of the profession dominate their attitudes and behavior in the work setting. The key focus for attitude change is to create an awareness of the dilemma between professional and required interdisciplinary interdependence.

Using the health system analogy again, the doctor is trained to be the expert in his field. When he enters the interdisciplinary health setting the nature of the work to be done, comprehensive health care, makes it impossible for him to be the only expert. The knowledge explosion requires that others contribute to the work and bring the necessary expertise from nursing, social work, etc. Unless he, as a professional, can come with the posture that mutual influence is required, that he does not know all, required interdependence becomes impossible. Such learning entails extensive study of the assumptions that the individual brings with him to the job as a professional about himself, about others, and about the work to be done. Certainly flexible roles will only become a way of life if individuals can accept their requirement and live with the interdependence and ambiguity that results.

Because it is impossible to predict the exact team setting that an individual will move to from the academic setting, it is most useful to consider the possible settings and
their implications for required knowledge, skills and attitude learning. In a sense, what is required is an accurate diagnosis on the part of curriculum designers of just what the job environment (life space) will demand of professionals in terms of team skills. The core content that results will be generalizable across settings to the extent that interdependence (which defines the need for teamwork) is required at all. The process by which such content becomes part of the curriculum determines the effectiveness of such an effort. Thus the flow of such planning for educational input is as follows:

I Define possible team profiles
Autonomy Dimensions
  Role Prescriptions
  Organizational Constraints
Task Dimensions
  Interdependence
  Uncertainty

II Define relevant content
Knowledge
  Diagnostic framework of dimensions
Skills
  Process skills
  Diagnostic skills
Attitudes
  Perception of appropriate roles
  Assumptions about the work environment
  Team membership

III Define effective methodology for transfer of learning

A list of content issues directly falls out from the team profile. All of the needs demanded in the developmental models presented in the previous chapters can be addressed in curri-
curriculum in an academic setting. The very awareness of the problems that teams face provides the impetus to learn about group processes required, the demand system faced, and organizational life in general. Thus the critical issue is not really one of content which can be derived from the model outlined here as well as from designs and literature written on team intervention, but rather how to make such content relevant to the perspective team member. This becomes the focus of a section on effective learning methodology.

**Learning Methodology**

The key question to be asked in determining learning designs is "What will be relevant to the student?" Just as team interventions are resisted and ineffectual if they are off target in terms of relevance to the work to be done, and the critical issues obstructing that work, so will education in school settings be insignificant unless they focus on the critical issues facing the student.

If one looks at any prospective student, whether he be in medical school, law school, etc., his primary concerns usually lie in learning the technical knowledge required to do the job. Traditionally this has proceeded through lectures and reading, and success was determined through examination results. Certainly in such an environment the last thing an individual would want to hear about is his interpersonal style, or the dynamics of groups--primarily because it wouldn't
seem relevant to him given the current demands on his system. In fact the structural demands placed upon him have caused him to find a way to get the work done (just as a team will) and he has adapted to that structure in such a way that preparation for team membership is almost entirely out of the range of his current concerns.

The results are a top notch technician who flounders tremendously when he enters a work setting because he has never given any thought to the impact of the environment (task and organizational) on his own personal effectiveness.

This is certainly an extreme commentary on the current state of affairs in educational institutions. Feedback from former students have caused administrators to take note of the need to better prepare students for the culture shock of entering the real world. Particularly in the area of the behavioral aspects of the job there has been increasing effort to tap the management and behavioral sciences in order to give individuals the tools and skills to confront the human factors of the job. This attempt should answer the need for team membership preparation—however, too often it has been perceived as a low priority in a curriculum, or totally disjointed from the "core" material. Thus again the issue remains to determine the appropriate process for making it relevant.

Thus the first step in making an educational input relevant is to create a need for it. It is clear that a focus
on the future work environment is important if individuals are to perceive a need for knowledge and skills in the area of team membership. The most obvious way to make this happen is to create that environment in the academic setting. Clinical work in a medical school setting moves towards this condition by getting the student in a health setting. This usually occurs in the latter years of education where socialization into an autonomous and rigidly defined role has already occurred. In the management school practicums are provided to get the student to work on outside problems to familiarize him with the realities of the real world settings in which he will ultimately work. But again this is usually separate and apart from the technical education of the finance major or marketing major.

The way to integrate the two aspects of the learning focus is to teach technical knowledge within the structure that approximates a future interdependent team setting. The teacher generally creates the structure and demand system operating within the classroom. His efforts could be directed towards creating task and autonomy dimensions which will approximate future possible work settings. This has been attempted in a management school course within one particular discipline. Over the course of the semester teams worked on a project within a defined organizational context. One could observe over the course of the term, critical issues of group development getting in the way of the work—those of commit-
ment to the group, authority and control, and the work methods. The frustration level of individuals rose because of their inability to get the team operating effectively. This experience in itself created a need to understand more about group processes and team dynamics.

Though these teams were interdependent they were not interdisciplinary. Such an interdisciplinary team experience would heighten the problems inherent in interdependent work and the effects of role prescriptions on team integration. With more connection of the disciplines, such an experience could be created to provide a group experience which even more so approximated the future work environment.

The concrete experience in a team effort serves to heighten the need for knowledge and skills around team membership. It needs to be followed up with educational input that enables an individual to learn from the frustration experienced in getting the job done without the necessary process skills. There are primarily three different ways in which to supplement the experience to facilitate learning:

1. **Conceptual frameworks:** By giving students the tools necessary to understand the team experience they will be able to diagnose the problems inherent in team functioning. The presentation of the theoretical concepts of task and autonomy dimensions, as well as those of the developmental and process
issues that get in the way of the work enables the experience to be processed in a constructive way. This might include reflection on the experience, and new input through discussion and reading on the generalizations that can be made about team dynamics.

2. Skill Practice: In addition to the knowledge input, there must be an opportunity to experiment with the required process skills. This can occur outside of the team context but careful linkage must be made if it is to be transferable to the work setting. The key here is to move from a conceptual understanding of processes (decision-making, goal-setting, communication, role negotiation) to operational use of the skills required. Experience based learning which allows experimentation with new behavior leads to the adoption of new and more effective group skills. There are a number of experiences available which can be tailored to meet the needs of a particular school setting. It is during such practiced phases that individuals can be aided in exploring their attitudes toward their own styles and those of others and how they interact to produce effective group behavior.

3. Continual Team Experience: Applications of the skills experimented with in a "laboratory setting" need to be practiced in the team setting which most approximates the future team environment. The more the technical aspects of the profession can be learned through an interdisciplinary team approach, which approximates the environment in which
will ultimately be applied, the more effective the individual will be in the work environment.

There is a definite learning theory that underlies such a framework for designing educational inputs around team membership. It can be illustrated diagramatically through the use of the learning loop developed by Kolb, Rubin and McIntyre as follows:

Concrete Experience

Active Experimentation

Reflective Observation

Abstract Conceptualization

Each phase is required if full and complete learning is to occur. Each phase implies a certain mode of learning reflected in its name. The concrete experience refers to the actual working in a team setting that can be structured into curriculum design. Standing back and looking at the experience in a way which allows for personal study of the experience and its effects on one's own learning characterized the second phase. Educational input around theory of groups and teams and diagnostic tools with which to examine previous experience become the focus of the third phase. This requires modes of learning which most approximates the traditional academic style—reading, discussion and integration of theory.
The final, and solidifying phase is that of application to new experiences and is met through the opportunity to test new skills in a new team setting.

The cycle repeats itself over time and with each new experience, new skills and attitudes toward team membership become further internalized. There have been studies done which suggest that individuals will feel most comfortable in particular phases of the model. The framework can be used as a diagnostic tool in determining which phases will be most difficult for the individual learner. By making the learner and educational designer aware of this reality, the educational process can be managed systematically to insure that all phases are effectively experienced.

The success of such a set of content and processes for learning about future team membership depends entirely on the perspective of the educational school management as well as the individual learners. If it is to be of impact on the future capabilities of team members, then it must be an integrated part of the function which professional education is designed to serve. In a sense, we are talking about major organizational change which incorporates a career planning perspective into the educational experience which supports the attempt to make the future work environment a focus of study during the professional training period.

Just as a team profile is necessary in order to determine developmental needs for the group, by defining the relevant
demand system, a profile of the work environment which awaits professionals serves to determine the developmental needs of individuals beyond the scope of technical expertise.
Chapter VI
Summary and Conclusions

The wide occurrence of the team as a primary work unit in most organizations today provided the impetus to write a thesis which would integrate the theoretical and practical knowledge on groups in such a way that it could serve as a diagnostic framework for determining team development needs. Bridging the gap between the theoretical perspective and the practical implementation of such a framework became the process by which a useful and relevant integration could evolve. The product of the effort, a team profile, defined by a set of dimensions characterizing any particular team should be of use to those that live in teams, administer teams, and consult to teams, as a systematic framework for diagnosing developmental requirements for improved work effectiveness.

Initially, theories of group development were explored in order to define the critical issues that impede growth at any point in time of a group's life. The rationale supporting this effort is that those critical issues identified for groups in general apply to the team in the context of an organizational setting as well. The planned process of educational intervention into ongoing teams is primarily for the purpose of facilitating the development of the capability to deal with internal and environmental realities that the team faces. Movement to a higher stage of development is the indicator of successful educational effort. Thus the critical issues
defined, ranging from commitment and authority issues to concerns with relationships with the environment and change in goals and focus characterize and indicate the particular stage in which a group is currently situated. The developmental framework serves to point out the critical issues which remain unresolved, and which must be dealt with if a group is to be able to develop the capability to manage its task demands. At the same time, the developmental stage is diagnostic to the extent that it defines what focus of intervention will be most relevant to team members. Questions of intimacy and identity of the team cannot be addressed until earlier issues of commitment and inclusion have been resolved. It is the contention of this effort that by using the developmental framework, energy will not be wasted in the design of inappropriate intervention which comes about if the focus is off target from the critical issues, or if future development is not necessary because of a relatively simplified task environment.

Thus the critical issues of the group development framework serve two purposes:

1. The critical issues serve as a framework for organizing the data available on the human interaction and ongoing group processes at any given point in time, and indicate where the team is currently situated developmentally.

2. The determination of the current developmental stage indicates the appropriate depth and focus of intervention.
The developmental frameworks have never been explicitly used in the diagnosis of team intervention primarily because they are derived from work with groups in laboratory settings which do not approximate the organizational context in which a team lives. The viewpoint taken in this thesis, that a team is a group differentiated by its task demands and organizational constraints, led the author to believe that the explicit application to the team setting was crucial. Thus the next step was to explore those dimensions that characterize teams and impact on the developmental requirements.

Two sets of dimensions were derived from empirical work on work teams. The task dimensions of certainty and interdependence serve to define the level and quality of mutual influence required in the operation of the team. It was determined that the higher this requirement, the greater the need for a higher level of group development in which a team possesses the skills to manage the uncertainty of the task, roles, procedures and ways of work. The autonomy dimensions indicate the factors that obstruct the resolution of critical issues impeding growth. Role prescriptions which cause individual members to maintain norms which go contrary to the necessary commitment and integration required around interdependent tasks become part of the diagnostic framework of the team in question. The amount of control the organization has over the team's operation impacts on its ability to grow and become regenerative. The interaction of these two sets of
dimensions serve to define the developmental stage to which a team must move in order to meet its environmental demands.

Thus the task and autonomy dimensions determine the team profile. Each and every team will fall uniquely along them defining a required level of development. Observable group processes enter the profile as indicators of the current stage of development. The discrepancy between current stage and required stage determines the appropriate depth and focus of intervention. When the current and required stages are congruent the team possesses the capability to meet its environmental demands most effectively.

The use of the team profile as a diagnostic tool will facilitate the choice of appropriate intervention. By applying the general knowledge on group development to the particular team setting differentiated by its task and autonomy dimensions, a systematic approach emerges which insures that team time and energy is directed towards relevant developmental capability required to accomplish its task most effectively. As the team profile is modified by changes in certainty of the work, and changes in organizational constraints the developmental requirements will also change. The framework serves to monitor these changes and to define relevant points of intervention. By using it, one can insure that developmental effort aimed at moving a team to a regenerative stage (where a team can manage its own growth) will only occur when the task and organizational demands require such a capability.
At the same time, interventions will be tailored to the unique dimensions that differentiate one team from another.

The first half of the thesis focussed entirely on the integration of group development theories and empirical evidence on team functioning in an organizational context to produce the team profile. In order to insure its usefulness as a diagnostic tool it was then necessary to explore the issues that arise in making it operational. Such a movement to the pragmatic side of the model required a study of methodologies for data collection and the role of the intervenor was also explored in terms of his impact on the developmental process and the data which his relationship with the team can provide to expand the team profile. The final application issue around the use of the team profile concerned the determination of the depth and focus of intervention. Criteria were established for determining the required level of risk to move a team to a new stage of development.

It is likely that with further testing of the team profile as a diagnostic tool, the application issues will be more accurately defined. The intent of the discussion of these issues was to draw on previous experience to define apparently relevant issues. Just as a team task can become more certain over time as procedures of work and environmental factors become more familiar, it is the hope that the task of using the team profile effectively will become more programmable as it is further tested.
The diagnostic framework was primarily developed for use by an outside intervenor. There are at least two alternative usages available. One kind of educational intervention which can facilitate team development is that which occurs within the context of the academic setting where individuals are preparing for work in organizational settings. The prospect of building "preparation for team membership" into curriculum design became the focus of the last chapter. The hypothesis underlying such an effort is that an individual can begin to learn the skills required in the interdependent team setting before he begins his life in that context. The team profile serves as a conceptual framework for the educational designers in determining future skill requirements, and as a framework for the student in which to organize his experiences in a team setting within the academic environment, and his projections of his future work environment.

The other application of the team profile concerns the usage as a diagnostic tool for administrators of organizations consisting of teams. The administrator can have great impact on the organizational constraints which define an autonomy dimension in the team profile. His understanding of the developmental framework, and the dimensions that determine developmental requirements can enable him to facilitate the team development process. This entire area was explicitly left out of this effort because it requires further study and experimentation with the team profile which is beyond the
scope and primary purpose of the thesis. The limitations of the model outlined here must be recognized if it is to be used appropriately. It was developed primarily with the team as the primary target of intervention.

If the team profile serves as a vehicle for more systematic use of the theoretical and empirical knowledge on groups in planning team development efforts the result will be two-fold. The bridge between theory and practice will have at least a firm foundation, and those concerned with increasing team effectiveness will experience progress towards facilitating the management of an increasingly complex environment.
Chapter I


Chapter II


4. For a discussion of this model see Hinton, B; Reitz, H. Group and Organizations: Integrated Readings In the Analysis of Social Behavior; Wadsworth Publishing Company, 1971
Chapter III


3. Lawrence, Paul; Lorsch, Jay; Developing Organizations: Diagnosis and Action, Addison Wesley, 1969.


Chapter IV


Chapter V

2. For a summary of available exercises see:
   Kolb, D; Rubin, I; McIntyre, J; Organizational Psychology: An Experiential Approach; Prentice-Hall, Inc., 1971.

   or
   Fordyce, Jack; Weil, Raymond; Managing With People; Addison Wesley Publishing Company, 1971.

   or

Bibliography


Lawrence, Paul and Lorsch, Jay *Developing Organizations: Diagnosis and Action*. Addison-Wesley, 1969.


