INFORMATION TO USERS

This material was produced from a microfilm copy of the original document. While
the most advanced technological means to photograph and reproduce this document
have been used, the quality is heavily dependent upon the quality of the original
submitted.

The following explanation of techniques is provided to help you understand
markings or patterns which may appear on this reproduction.

1. The sign or “target” for pages apparently lacking from the document
photographed is “Missing Page(s)”. If it was possible to obtain the missing
page(s) or section, they are spliced into the film along with adjacent pages.
This may have necessitated cutting thru an image and duplicating adjacent
pages to insure you complete continuity.

2. When an image on the film is obliterated with a large round black mark, it
is an indication that the photographer suspected that the copy may have
moved during exposure and thus cause a blurred image. You will find a
good image of the page in the adjacent frame.

3. When a map, drawing or chart, etc., was part of the material being
photographed the photographer followed a definite method in “sectioning” the material. It is customary to begin photoing at the upper
left hand corner of a large sheet and to continue photoing from left to
right in equal sections with a small overlap. If necessary, sectioning is
continued again — beginning below the first row and continuing on until
complete.

4. The majority of users indicate that the textual content is of greatest value,
however, a somewhat higher quality reproduction could be made from
“photographs” if essential to the understanding of the dissertation. Silver
prints of “photographs” may be ordered at additional charge by writing
the Order Department, giving the catalog number, title, author and
specific pages you wish reproduced.

5. PLEASE NOTE: Some pages may have indistinct print. Filmed as
received.

University Microfilms International
300 North Zeeb Road
Ann Arbor, Michigan 48106 USA
St. John’s Road, Tyler’s Green
High Wycombe, Bucks, England HP10 8HR
CASSILL, Harold William, 1931-
A CONCEPTUAL FRAMEWORK FOR REALIZING ORGANIZATIONAL EXCELLENCE AND CHANGE IN INDUSTRIAL TECHNOLOGY EDUCATION THROUGH ORGANIZATION DEVELOPMENT.

The Ohio State University,
Ph.D., 1977
Education, industrial

University Microfilms International, Ann Arbor, Michigan 48106

© 1977

HAROLD WILLIAM CASSILL

ALL RIGHTS RESERVED
A CONCEPTUAL FRAMEWORK FOR REALIZING ORGANIZATIONAL EXCELLENCE AND CHANGE IN INDUSTRIAL TECHNOLOGY EDUCATION THROUGH ORGANIZATION DEVELOPMENT

DISSERTATION

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

By

Harold William Cassill, B.S., M.A.

* * * * *

The Ohio State University
1977

Reading Committee:

D. G. Lux
W. E. Ray
W. W. Wayson

Approved

W. E. Ray
Faculty of Industrial Technology Education
ACKNOWLEDGEMENTS

I am greatly indebted to Dr. Donald G. Lux for his advice and interest in this dissertation. His wisdom, patience, and understanding were the magic ingredients that made this task meaningful and possible.

Many thanks are due to other individuals who helped and advised me. Dr. William W. Wayson's interpretations and suggestions regarding the concept of organization development equaled that of all the books I could find on the subject. Dr. Willis Ray's suggestions and ideas on the scope and organization of the research are greatly appreciated.
VITA

25 February 1931 . . . Born - McArthure, Ohio

1952 . . . . . . B.Sc., The Ohio State University, Columbus, Ohio

1952-1954 . . . . Cartographic Intelligence Officer on Active Duty in the United States Air Force

1954-1959 . . . . Industrial Arts Teacher, Columbus Public Schools, Columbus, Ohio

1958 . . . . . . M.A., The Ohio State University, Columbus, Ohio

1959-1960 . . . . Industrial Education Teacher, Long Beach Unified Schools, Long Beach, California

1961-1963 . . . . Training and Development Officer on Active Duty in the United States Air Force


1968-1973 . . . . Industrial Arts Teacher, Fort Wayne Community Schools, Fort Wayne, Indiana

1974-1977 . . . . Doctoral Student, The Ohio State University, Columbus, Ohio
TABLE OF CONTENTS

ACKNOWLEDGMENTS ..................................... ii
VITA ............................................. iii
LIST OF TABLES ................................... vii
LIST OF FIGURES ................................... viii
CHAPTER

I. INTRODUCTION .................................... 1
   "Dry Rot" in Public Education ..................... 1
   Attention is Focused on Industrial
   Arts Teacher Development and
   Training ........................................ 4
   What Has Been Learned from Traditional Training Approaches .......... 6
   The Concept of Organization
   Development .................................... 9
   The Problem Statement ........................... 10
   Purpose of the Study ............................. 11
   Assumptions .................................... 12
   Significance of the Study ........................ 12
   Limitations and Delimitations
   of the Study .................................. 13
   Definitions of Terms ............................. 14
   Procedures and Organization
   of the Study .................................. 15

II. PRELIMINARY REVIEW OF RELATED
    RESEARCH IN OD AND CONTENT ANALYSIS
    AS A METHODOLOGY FOR DECODING THE
    COMMUNICATION CONTENT OF ORGANIZATION DEVELOPMENT ........... 17
    The Antecedents of OD ........................... 18
    Content Analysis as a Methodology
    for Decoding Communication Content of Organization Development .... 25
TABLE OF CONTENTS (continued)

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>III. METHODOLOGY</td>
<td>32</td>
</tr>
<tr>
<td>The General Research Paradigm-</td>
<td></td>
</tr>
<tr>
<td>A Quasi-Qualitative Content</td>
<td>32</td>
</tr>
<tr>
<td>Analysis Method</td>
<td>32</td>
</tr>
<tr>
<td>The Specific Operations</td>
<td>34</td>
</tr>
<tr>
<td>The Questions</td>
<td>34</td>
</tr>
<tr>
<td>Selection of the Sample</td>
<td>36</td>
</tr>
<tr>
<td>Determining a Classification System</td>
<td>41</td>
</tr>
<tr>
<td>The Method for Classifying and Scoring OD Values</td>
<td>43</td>
</tr>
<tr>
<td>The Method for Classifying and Scoring OD Mechanisms</td>
<td>45</td>
</tr>
<tr>
<td>The Method for Classifying the OD Process</td>
<td>50</td>
</tr>
<tr>
<td>Presentation of Research Findings</td>
<td>50</td>
</tr>
<tr>
<td>IV. RESULTS OF DATA ANALYSIS</td>
<td>51</td>
</tr>
<tr>
<td>The OD Sample of Benchmark Works</td>
<td>51</td>
</tr>
<tr>
<td>The Classification and Scoring of OD Values</td>
<td>54</td>
</tr>
<tr>
<td>The Classification and Scoring of OD Mechanisms</td>
<td>91</td>
</tr>
<tr>
<td>Classifying the OD Process</td>
<td>101</td>
</tr>
<tr>
<td>Presentation and Implications of Research Data</td>
<td>111</td>
</tr>
<tr>
<td>V. A DERIVED OPERATIONAL FRAMEWORK FOR OD APPLICATION TO INDUSTRIAL ARTS EDUCATION PROGRAMS</td>
<td>128</td>
</tr>
<tr>
<td>Acquiring an OD Perspective for Effective Supervision</td>
<td>130</td>
</tr>
<tr>
<td>The Goals of the Supervisor Who Adopts an OD Perspective</td>
<td>142</td>
</tr>
<tr>
<td>A Framework for Supervisory Development</td>
<td>144</td>
</tr>
<tr>
<td>Putting It All Together</td>
<td>157</td>
</tr>
</tbody>
</table>
# TABLE OF CONTENTS (continued)

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>VI. CONCLUSIONS AND RECOMMENDATIONS</td>
<td>165</td>
</tr>
<tr>
<td>Overview</td>
<td>165</td>
</tr>
<tr>
<td>Conclusions</td>
<td>167</td>
</tr>
<tr>
<td>Recommendations</td>
<td>179</td>
</tr>
</tbody>
</table>

| APPENDICES | |
| A | Issues and Titles of Sources Appearing in a Series of Reputable OD Publications | 195 |
| B | Frequency of Occurrences of Publications Appearing in a Series of OD Publications 1963-1975 | 204 |
| C | Primary Sample of OD Publications with Frequency of Citations | 205 |
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Summary of Organizational Value Orientations Mentioned Explicitly and/or Implicitly in Publications of OD Sample</td>
<td>78</td>
</tr>
<tr>
<td>2. Summary of Content Analysis of OD Mechanisms Based on Ten Selected Benchmark Works and Using Leavitt's Model as Categories of Classification</td>
<td>97</td>
</tr>
<tr>
<td>3. Glossary of Major OD Mechanisms</td>
<td>121</td>
</tr>
<tr>
<td>4. Relevance of Mechanisms for Process of Change</td>
<td>123</td>
</tr>
<tr>
<td>5. Leadership Requirements by Organizational Level</td>
<td>148</td>
</tr>
<tr>
<td>6. Issues and Titles of Sources Appearing in a Series of Reputable OD Publications</td>
<td>195</td>
</tr>
<tr>
<td>8. Primary Samples of Benchmark Works in Rank Order</td>
<td>205</td>
</tr>
</tbody>
</table>
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The Main Elements Involved in Content Analysis</td>
<td>30</td>
</tr>
<tr>
<td>2. Multistage Diagram of How Benchmark Works Were Determined</td>
<td>38</td>
</tr>
<tr>
<td>3. Leavitt's Multivariate Model</td>
<td>46</td>
</tr>
<tr>
<td>4. Process of Organizational Change - Blake and Mouton's Model</td>
<td>104</td>
</tr>
<tr>
<td>5. Process of Organizational Change - Greiner's Model</td>
<td>107</td>
</tr>
<tr>
<td>6. Process of Organizational Change - Schein and Bennis's Model</td>
<td>109</td>
</tr>
<tr>
<td>7. A Searching, Learning, Implementing Model of OD</td>
<td>125</td>
</tr>
<tr>
<td>8. Framework of Components for OD Supervisory Development</td>
<td>151</td>
</tr>
<tr>
<td>9. The Searching, Learning, Implementing and Maintaining Stages of Planned Change</td>
<td>159</td>
</tr>
</tbody>
</table>
"Dry Rot" in Public Education

Seasoned lumber is often destroyed by a disease caused by any of several fungi that are not only dangerous because they can spread easily but also because they are difficult to control. This is called "dry rot" or "deadwood." Most handymen have at some time worked with a plank that simply crumbled when it was handled or tooled. More often than not this plank appeared healthy at first glance but upon closer examination proved defective and not suitable to standard.

Figuratively, public education, like many social institutions, is like the handyman's plank--it appears healthy but on close examination it features characteristics of deadness and dysfunctionality. Not only has the public-at-large expressed concern about these dysfunctionalities but various authorities have studied and identified them also (see Project UNITE, 1972). Silberman in his book Crisis in the Classroom (1970) has focused attention on the subject. Others have echoed similar judgments (see Lux, 1972; Passett, 1970; and Umans, 1970).
These judgments seem to create a pattern. A common point of reference is exorbitant costs. According to the U.S. Department of Commerce, public education costs have increased 450% since 1960 and since 1971 there has been a declining enrollment (1973, p. 8). Another reference is what this writer calls "fossilization" or the inability of the schools to stay viable and to meet the requirements of change. Lux has spelled this out. In a speech in 1972 in Dallas before the American Industrial Arts Association (AIAA), he focused attention on what he termed "public education's unwillingness to change" (1972, p. 17). He adds:

The first half of our profession's century of existence was characterized by rapid change and, probably not coincidentally, widespread interaction with engineers, philosophers, college presidents, and psychologists, among others. Our early leaders participated in a variety of national meetings and, at meetings inside the profession, one found representation from many organizations by persons with varied backgrounds. Once again, the profession desperately needs to seek rapid change based upon thorough analysis and objective appraisal by a metropolitan community of scholars and practitioners (p. 17).

Some people, perhaps in the majority, may treat the remarks of such authorities as Silberman and Lux in a light vein. They might compare such discourse about the dysfunctionalities of our schools with remarks that have been made about the decay in America in the last quarter of the twentieth century. These remarks often purport to convince
the public-at-large that without innovative action now the fate of humanity is precariously in the balance. Such discourse is comparable to the lines of Voltaire's Dr. Pangloss who went through life declaring that every difficulty or problem has a silver lining. To this writer the situation is more critical than that. One should take seriously the credibility that public education apparently has denied itself. It only seems logical to expect that if schools, like all human organizations, are not seeking positive solutions to problems of improvement and change, of staying viable and healthy organizationally, to being "solid" like a standard plank of oak, then surely the consequences will be unpleasant ones.

Children will not get the education due them. We will pay more for less as the critics point out. Education may become like a "non-moving line" in a variety store—a merchandise of inferior quality that does not have a chance of being needed let alone being sold.

This study focuses upon the means to improve industrial arts education through improving the human organization that serves it. Specifically, these humans within the organization are teachers, administrators, and support personnel. Students in industrial arts programs are not directly involved, although they indirectly are the ones who should benefit from the findings. The core of the study is concerned with strategies that increase organizational
excellence in industrial arts programs by improving the extent to which they accomplish their intended goals or carry out their functions. Salient features about the study are spelled out in this chapter, including how an awareness of the problem was acquired by the writer and how the study was developed.

Attention is Focused on Industrial Arts Teacher Development and Training

Research on industrial arts personnel development methods has been limited. Let us examine this in more detail.

As a result of the American Industrial Arts Association's (AIAA) conference in Atlantic City, New Jersey, in 1973, the representative assembly passed a resolution requesting the appointment of a committee to prepare a set of qualifications and responsibilities for state and local supervisors of industrial arts programs (Good, et al., 1974). The purpose was to provide a basis for establishing and maintaining quality industrial arts programs that reflect the standards established by the AIAA. The committee's final report was presented to the AIAA Executive Board at the 1974 AIAA conference in Seattle. It was a major study resulting from 1) a follow-up of a 1967 study, conducted by the American Council of Industrial Arts Supervisors, of the major duties of industrial arts supervisors and 2) a nationwide survey of state and local supervisors
of industrial arts programs.

One of the recommendations concerned the supervisor's responsibility for utilizing and developing industrial arts personnel. Reference was made to "training and improvement" which included such approaches as in-service workshops, university courses, intern programs, visits to business and industry, as well as participation in professional meetings at the local, state, and national levels which are designed to supplement, reinforce, and modernize teacher competency and performance.

Ehlers (1973) focused on the need for professional growth by practicing industrial arts teachers in Ohio. His research showed that industrial arts teachers believed that campus workshops, work experience and industrial visitations were most valuable in teacher in-service activities.

Ray (1974) focused attention on the need for industrial arts personnel development in an article concerning the status of industrial arts teachers in our schools. He declared that approaches to developing quality industrial arts teachers needs a new perspective both in concept and practice. He suggested that the task of developing quality industrial arts teachers should be accomplished by having "teachers; supervisors; local, state, and federal agencies; and industrial resource persons, (working) in cooperation with teacher educators, with the entire community as a laboratory" (p. 164). However, the article only called
attention to the need for teacher development and provides no detailed solution for it!

Thus, past research dealing with teacher improvement in industrial arts appears cursory even though close examination of the subject has been made. The subject has been neglected as a possible way for improving industrial arts education. But perhaps this neglect has not been all that bad! The next section explains this.

What Has Been Learned from Traditional Training Practices?

The literature and research dealing with the effectiveness of traditional training approaches casts doubt upon whether these approaches are in themselves adequate to generate organizational excellence. Organizational change has been handicapped by the tendency to confuse individual change with change in organizational variables.

Examples of ineffective training-results along traditional lines can be found in training programs in industry. Fleishman, Harris, and Burtt found that a training program addressed solely to first-line supervisors led to role conflict between the supervisors and their superiors (1969, p. 392). The study, conducted at the International Harvester Company by the Personnel Research Board at The Ohio State University, concluded that training in isolation falls short of its objectives. The study emphasizes that it is necessary to consider the social situation in which a person is
going to work or operate. The study points out that supervisors developed a point of view in training but lost it on their return to the plant if their supervisors had different points of view. What is socially correct, and hence rewarded, in the "school" may not be viewed as being correct or deserving of reward in the plant. The foreman "learns" two sets of attitudes, one for each "situation" (pp. 392-3). Skyes discovered similar findings in another study (1962, pp. 227-43).

Bennis (1969) provides insight into the problem. He writes:

...the only viable way to change organizations is to change their "culture," that is, to change the systems within which people work and live. A "culture" is a way of life, a system of beliefs and values, an accepted form of interaction and relating. Changing individuals...cannot yield the fundamental impact so necessary for the revitalization and renewal I have in mind—if our organizations are to survive and develop (p. v).

Schmuck and Runkel state that attempts to improve personnel in schools have traditionally centered on training individuals (1972, p. 14). They further state that little effort has been given to training groups of people. They summarize two educational strategies for staff improvement. The first stratagem, which includes in-service programs and college courses, appears to be ineffective for changing organizations because of discrepancies between ideal and real conditions. What takes place in the classroom, for example,
is quite different from the real world outside. Knowledge alone does not necessarily lead to change. This first stratagem stresses primarily the cognitive realm of learning. The second educational stratagem concerns the affective realm of learning and is used in on-the-job settings. It provides the participant in a work group an opportunity to explore both the impact of his behavior on others and the forces affecting his group's commitment to its decisions, processes, and dynamics.

If training programs in business and industry do not fulfill their intended objectives, what then is the function of such programs? Does private enterprise like to throw away its money? One publication has estimated that the cost for training programs in private enterprise was over five billion dollars annually ten years ago (Kleinschord, 1967, p. 18). With spiraling inflation, this cost has at least doubled making any matter concerning economics a serious one. Training programs should be more effective mechanisms if they are to deserve a place on the financial ledger. If training approaches in business and industry produce doubtful results, are not similar training approaches to organizational improvements used in our schools also questionable? Can the industrial arts supervisor put his trust in traditional training approaches when he attempts to fulfill his staff development responsibilities?
The Concept of Organizational Development

Ray points out the neglect of the industrial arts profession in utilizing more fully concepts and practices found in management science (1972, p. 474). He pointed out that management science provides an accepted area of subject matter for industrial arts. However, as documented earlier, research related to the organizational dimension of industrial arts programs has not been popular.

A review of the literature of management science reveals considerable research concerning people and how they function in organizations. Much of the research centers around the concept of organization development (OD).

One writer (Bennis, 1969, p. 2), defines OD as: "a response to change, a complex educational strategy intended to change the beliefs, attitudes, values, and structure of organizations so that they can better adapt to new technologies, markets, and challenges, and the dizzying rate of change itself. Organizational development is now and still emerging...so its shape and potentiality are far from granted and its problems far from solved." In a survey by the American Society for Training and Development (ASTD), it was found that Beckhard's definition of OD was most widely accepted by OD practitioners (Patten, et al., 1973). Beckhard defines organization development as "planned organizational environment" or "an effort planned organization wide, and managed from the top, to increase organization
effectiveness and health through planned interventions in the organization's processes, using behavioral-science knowledge" (1969, p. 9). The primary focus is on the organizational unit (the socio-structural situation), not on individual personalities. People do not have to feel that they are expected to become amateur psychologists or that the objective is to try to "remake" people. OD programs are concerned with all aspects of a unit's operation, not solely with the organization's structure or relations among members or any other single aspect.

The Problem Statement

Authorities in industrial arts have spelled out the need for improving the quality of personnel who make up the work force that operates industrial arts programs (Good, et al., 1974; Ray, 1972). Traditional training and development approaches are offered as means for accomplishing this requirement. However, those approaches (in-service education, college courses, seminars, etc.) have certain pitfalls revealed by research findings in business and industry (Fleishman, Harris, and Burtt, 1969; Katz and Kahn, 1966; Skyes, 1962).

Katz and Kahn declare that the major error in dealing with employee training and development approaches is to "...disregard the systemic properties of the organization and to confuse individual change with modifications in
organizational variables" (1966, p. 390). The basic assumption of individual change and improvement programs is that since the organization is made up of individuals, it (the organization) can be changed/improved by changing its members. Katz and Kahn point out that this assumption is not so much an illogical proposition as it is an oversimplification which neglects the interrelationships of people in an organization structure and fails to point to the aspects of individual behavior which need to be changed (p. 391).

An alternative proposed by authorities who point out weaknesses in training programs is the application of organization development. Organization development is an innovation that provides strategies for improving and changing organizations in a total, systems approach in which interrelated organizational variables are accounted for. The problem is, how can organization development be applied to industrial technology education programs?

**Purpose of the Study**

Since industrial arts education has been remiss in exploring the application of current management concepts to matters of organizational improvement, it seems that a need exists for investigating the application of these concepts to the administration of industrial arts programs. Assuming these factors, the purpose of this research effort is to develop a conceptual framework which may serve as a basis
for realizing organizational improvement and excellence in industrial arts programs through organization development.

Assumptions

Several assumptions were made prior to the design of this study. These assumptions are as follows:

1. OD could conceivably be effective in facilitating planned change in industrial arts education.

2. A conceptual framework is a useful construct which can provide insight and facilitate reasoning about the problem at hand.

3. The literature of OD can be analyzed and a conceptual framework can be developed that depicts the nature of the process.

4. The completed conceptual framework will have the distinct and positive effect of providing a basis for developing a strategy for realizing organizational improvement in industrial arts programs.

Significance of the Study

The significance of this study is based on the following points. They are:

1. The research findings of this study may provide a basic foundation on which to conduct further research related to organizational change and improvement in industrial arts programs.
2. The conceptual framework developed in this study may help satisfy the need for improving the human organization in industrial arts education as supported by the writings of Ray (1972) and the publication of the AIAA (1974).

3. The findings of this study may serve as a basis for organizing the teacher improvement and utilization programs which are needed not only to supply the intellectual stimulation which improve teacher performance, but also to contribute to improved teacher morale.

**Limitations and Delimitations of the Study**

The limits and scope of this study are that:

1. The study is concerned with change strategies that change organizations rather than strategies that are solely or primarily concerned with changing individuals.

2. The study will be concerned only with an overview of current organization development theory and practice with no intent to be all inclusive (to be all inclusive would be a horrendous task and beyond the scope of this study). Only benchmark works will be treated within the scope of this dissertation so that an awareness to the limitations and advantages of various OD approaches can be developed. Prevailing themes in the literature review will provide a curtain to "filter" these works.
**Definition of Terms**

The following definitions are used in this study:

1. **Supervisor:** Any sectional officer charged with the responsibility for the supervision and improvement of instruction and instructional materials within a specified field, such as industrial arts education. Persons included could be administrative heads of programs at the state level all the way down to department heads in secondary schools.

2. **Management:** Getting things done through people.

3. **Scientific management:** Management based on an almost purely mechanistic point of view where human efforts are organized in much the same way an engineer might design a machine (Sutermeister, 1969, p. 214).

4. **Classical management (bureaucracy):** Management based on a formal organization point of view where each person has a known and unchanging task in a highly specialized unit, has one boss, observes central indispensible managerial control, and is viewed as a direct instrument to perform assigned tasks like a machine (Sutermeister, 1969, p. 23).

5. **Open-system:** Management based on the point of view that a close relationship between a structure and its supporting environment exists in a dynamic rather than a static sense. Organizational pattern includes input, through-put (transformation), output and a reenergizing of the system from sources in the environment (Katz and Kahn, 1966,
6. Closed-system: Management approaches such as scientific management that disregard differing organizational environments. Principles of internal organizational functioning are observed instead.


8. Organization Development:

an effort planned organization-wide, and managed from the top, to increase organizational effectiveness and health through planned interventions in the organization's processes, using behavioral-science knowledge (Beckhard, 1969, p. 9).

9. OD mechanism: A technique or method for achieving an OD result and which is derived from the study of the principles of organizational behavior. Consists of a collection of techniques and methods aimed at developing new organizational learning and new ways of dealing and coping with organizational problems.

Procedures and Organization of the Study

The research technique used was descriptive and utilized the mechanics of content analysis. The following outline briefly presents the procedure used in this study:

1. A study of related OD research was made to determine the state-of-the-art of OD.
2. A study was made to determine the general nature of content analysis as a methodology for investigating OD theory and practice.

3. Next, content analysis was used in order to study selected OD writings and to derive from them the values, mechanisms, and processes of OD strategies used to improve the human experience in complex organizations.

4. The data from the content analysis were analyzed and provided the foundation for development of an operational framework for OD application in the management of industrial arts education.

The chapters of this dissertation are organized as follows:

Chapter I: Introduction
Chapter II: Preliminary Review of Related Research in OD and Content Analysis as a Methodology for Decoding the Communication Content of Organization Development
Chapter III: Methodology
Chapter IV: Results of Data Analysis
Chapter V: A Derived Operational Framework for OD Application in Industrial Arts Education
Chapter VI: Conclusions and Recommendations.
CHAPTER II

PRELIMINARY REVIEW OF RELATED RESEARCH
IN OD AND CONTENT ANALYSIS AS A METHODOLOGY
FOR DECODING THE COMMUNICATION CONTENT
OF ORGANIZATION DEVELOPMENT

This chapter provides an overview of related research dealing with how OD as a body of theory and practice has emerged and taken form. Since OD is a relatively new field with no well established discipline, no attempt will be made to be exhaustive in covering the literature of this field. This would be beyond the scope of this study. Rather a research method called "content analysis" will be used, to expand on this preliminary discussion concerning OD, in this chapter. By using content analysis, a sample of benchmark works in OD will be used to decode the manifest communication surrounding OD.

By using content analysis, sources of knowledge and information about the utilization and improvement of people in complex organizations will be studied and inventoried to provide a foundation for the design of an operational framework for teacher development and utilization in industrial
arts education (the primary purpose of this study).

The Antecedents of OD

One writer has pointed to 1957-58 as the formal beginning of OD (McGill, 1974, p. 98). Bennis makes similar claims. He states that OD "...is new and still emerging, only a decade old..." (1969, p. 2). However, the conceptual antecedents of OD can be traced to earlier times.

Human Relations and OD

The human relations movement beginning some forty-five years ago provided much of the initial research dealing with OD theoretical formulations. This research is usually known as the Western Electric or Hawthorne studies which began as a test of Taylorism (scientific management), a search for optimum levels of illumination, among other things. In these studies, each time the experimenters varied the lighting conditions, workers stepped up production, regardless of the illumination level. The investigators (Mayo, 1933; Roethlisberger and Dickson, 1939), went on to ask why they were unable to establish a relationship between illumination and productivity; their findings lead to the human relations movement.

The proponents of human training maintained that the important organizational structure was the informal relationships which exist at all organizational levels, and
especially at the lower levels. They concluded that friendship patterns were at the heart of organization, and that the real working organization is what employers perceive as the organizational structure. Subsequently a set of human relations techniques were proposed to be used to motivate employees. Training programs involved individual counseling designed to change the perceptions of workers toward the company, as it was, and toward the work, as it was. The individual was the focus as the basis for motivation.

**T-Groups and OD**

Several theorists nurtured the human relations approach, particularly during the Thirties and Forties. The group factor in work situations was introduced, the concept of social systems emphasized, and theorists argued that people are motivated by a great deal more than money. Indeed, a worker's peers could actually guide a man away from his own economic self-interest by various social means. As a result, the then current economic man viewpoint in industry was supplemented by the human relations school.

After World War II, a number of theorists began to give more attention to the function of groups in defining social reality inside the organization.

Kurt Lewin (1951) and his associates expanded the study of group interactions to analyze their effects on organizations. However, Lewin also retained an individual,
psychological focus in his work. The Lewin group estab-
lished the Research Center for Group Dynamics of MIT and de-
veloped the training method known as "Sensitivity-Training"
and "Laboratory Training" (T-Groups), a detailed recounting
of which would extend beyond the scope and intent of this
study. Suffice it to describe here two major conclusions,
drawn from the success of T-Groups, that contributed to the
evolution of OD.

The first of these conclusions was that feedback of
data about interaction in the group setting provided rich
learning experiences. This provided a new and valuable tool
in training and education. The second conclusion was that
the process of group building and the skills learned thereby
had high potential for transfer to a variety of situations
including the organizational setting. These and other con-
siderations formed the foundation for the next evolutionary
phase of OD—the development of the National Training Lab-
oratory.

The National Training Laboratory and OD

The National Training Laboratory in Group Development
(NTL) was started in Bethel, Maine in 1947 (Schein and
Bennis, 1967, p. 4). The primary concern of NTL has been,
in the beginning and since, on training and learning based
on the ground work of Lewin and his associates. Attention
has been placed on the need for viewing training as a
planned program of individual growth. By 1960, NTL and its affiliate members had begun to apply T-Group Training methods which had great impact upon changing traditional training methods in industry. This newer T-Group training usually took the forms of "human relations," "group dynamics," and management development training programs. The general belief was that laboratory training was readily transferable to back-home situations (such training was usually provided in off-site settings, i.e., away from the home organizational setting).

However, research conducted on training programs of the type described above disclosed that, after a short time back on the job, the trained participant in T-group training was less effective than were his counterparts who had not received training. This fact was cited earlier in Chapter One (Fleishman, 1955). This research indicated that this decrease in training effectiveness was the result of a lack of congruence between what participants "learned in school" and what was expected of them back in their home organization.

Research of this nature led to newer organizational training approaches which were concerned with the organizational setting as well as with individual training approaches. A wide variety of designs were developed and implemented.
OD Comes of Age

The first OD program to "...integrate, conceptually and pragmatically, individual and organizational diagnosis and change" emerged in the Esso Standard Oil Company in 1957 (McGill, 1974, p. 103). Those associated with this effort were Shepard and his associates Blake and Mouton. Blake and Mouton have popularized their efforts in The Managerial Grid (1968) which has become known as Grid OD. The grid technique and concept is aimed at individuals, groups, and organizations as a whole. Their Grid OD begins with a focus on individual behavior, specifically the managerial styles of managers. Through six sequential phases, the focus moves to the group or team, on to the relationships between groups and finally to the culture of the organization. Training involves personnel in all phases over a very long period of time (years). The central point in Grid OD is the graphic presentation of management styles.

Another OD approach (coming from the Hawthorne studies) was developed by Likert (1961). Working out of the University of Michigan's Survey Research Center, he proposed a theory known as "participative management" or "System Four." This style is described in terms of seven operating characteristics, most of which include prescriptions regarding how groups should be managed. For example, the character of motivational forces should include "...motivational forces arising from group processes," and "...emphasis
on group participation, communication, and upward influence." People should be managed as a group; management should facilitate the development of trust, confidence, and participative decision making.

A key proposition of the theory is the "principle of supportive relationships," which relates group oriented supervision and the other System Four characteristics to productivity. The more supportive the supervisor, and the better the organization in terms of loyalty, levels of performance goals, and communication, the greater will be its capacity for high quality performance at low cost.

Bennis (1969) advocates a system for developing an appropriate organizational form for the future that is an adaptive structure, a "task force," a special form of work group. Bennis describes a task force as a group of relative strangers representing diverse professions and skills. They are specialists in an organic flux, linked together temporarily to bring their relevant skills to a particular task or program. Members of these task forces will be more intellectually committed to their speciality jobs and will require more participation, involvement, and autonomy. Bennis suggests that people will learn to rely on temporary social arrangements and will take their norms and values not from traditions but from their immediate and constantly changing colleagues. Because employees will have to quickly develop intense relationships on the job, skills in
interaction will become important. People will learn to bear the loss of enduring relationships. The point here is that a search for an appropriate organizational form, that is, an adaptive structure, the group configuration will emerge as the most flexible and productive design of organization.

The various examples above provide a brief review of several OD models that have emerged since the early Sixties and some of the diversity in the various approaches that have taken form. Trist suggests:

At the present time the practice of the leading professionals in the field is guided by an extending repertoire of concepts and techniques which they combine in 'personal styles' difficult to decode. No one knows what a Tannenbaum (Tannenbaum, Wechslev, and Massarik, 1961) or an Argyris (1964) in the U.S., or a Budger (1946), or a Hutte (1966), or a Pages (1964), or Faucheux in Europe, in fact does, unless he works with him. (1970, p. 356)

Trist's observation is still true when examples of recent writings about OD are reviewed and examined. Recent publications in OD such as those by Batchelder and Hardy (1968); Golembiewski and Blumbert (1970); Ogg (1972); and Margulies and Rara (1972) are examples, as well as the variations in styles of Blake and Mouton, Bennis, or Likert just cited.

The above point concerning the diversity of OD approaches provides the bases of the next section of this chapter and the first sub-problem for this study. It is
explained further in the following section.

Content Analysis as a Methodology for Decoding Communication Content of Organization Development

The method for describing various facets of communication content in summary fashion is called content analysis. In this part of the chapter this method will be discussed in general terms. A more extended discussion does not seem warranted since the domain of content analysis has been revealed by a host of scholars such as Berelson (1952); Budd, et al. (1969); and Holsti (1969).

One writer (Kerlinger, 1964, p. 544) has defined content analysis as "...a method of observation. Instead of observing people's behavior directly, or asking them to respond to scales, or interviewing them, the investigator takes the communications that people have produced and asks questions of the communications."

Still another author defines content analysis as "...a research technique for the objective, systematic, and quantitative description of the manifest content of communications" (Berelson, 1952, p. 18). Objectivity requires that the categories of analysis be so clearly and operationally defined that other researchers can follow him with a fairly high degree of reliability. Being systematic requires that all the relevant content be considered in terms of
meaningful categories, and not just selected parts of it. And being quantitative involves measuring or determining precisely an indefinite amount or number.

In most instances, researchers using content analysis as a methodology attempt to ascertain the why, who says what to whom, and with what effect (Merritt, 1970, p. 64). In each analysis of content, the message is considered the what; "It is the systematic, objective, and quantitative characterization of content variables manifest or latent in a message" (Merritt, 1970, p. 64). So much for the definitions of content analysis.

Why does one do content analysis? The basic answer to this question is that it is done in order to quantify that which is qualitative. Content analysis converts verbal or other symbolic material into quantities in order that statistical operation may be performed on such material. This purpose is accomplished by formulating classes, tabulating frequencies, and figuring rates.

The specific research objectives for which the content analysis of verbal and other symbolic material has been employed are many and varied. They include propaganda analyses of German communications for intelligence purposes (see Lasswell and Goldsen, 1947); the study of newspapers and publications by students of journalism and political science to study such categories as domestic affairs, politics, crime, divorce, and sports; and more recent application
with computer systems for content analysis and retrieval, based on the word as a unit of information, in psychotherapy (Harway and Iker, 1964). Berelson (1952, p. 26) lists as many as 17 major uses or functions of content analysis. So much for why researchers use content analysis.

The next question seemingly would be: How do researchers use content analysis, i.e., what is the methodology involved? There are two methodological problems which must be considered in relation to the application of content analysis of qualitative material (Quetzkow, 1950, pp. 47-58). These are (1) the creation of a system of classification, and (2) the determination of a unit of analysis.

Systems of classification are created by formulating sets of categories that result in comprehensive analysis of the communication under study. Berelson reminds us that content analysis "...stands or falls by its categories...a content analysis can be no better than its systems of categories" (Berelson, 1952, p. 147). He lists two major classifications of category, the "what is said" category and "how it is said" category. The former includes the following sub-categories (Berelson, 1952, pp. 148-162):

1. Subject matter - concerned with what the communication is about and what emphasis is given to certain topics.

2. Direction - refers to the pro or con treatment of a subject-matter.
(3) **Standard** - refers to the basis on which classification by direction is made.

(4) **Values** - relates to goals and wants of people: what people want or get. Values deals with ends of actions.

(5) **Methods** - deals with the means employed to realize the ends. In this sense, the methods category is related to the value category.

(6) **Traits** - includes personal characteristics, psychological traits, and other ways of describing people.

(7) **Actor** - refers to people which appears in a central position as the initiator of an action.

(8) **Authority** - refers to the source in whose name a statement is made.

(9) **Target** - refers to the group to whom the communication is particularly directed.

The latter type (how it is said) includes:

(1) **Type of communication** - has to do with ordinary distinctions among forms of communication.

(2) **Form of statement** - refers to grammatical form in which communication is made usually applied on a sentence-by-sentence basis.

(3) **Intensity** - refers to the "excitement values" with which communication is made.

(4) **Device** - refers to the classification of a body of content on the basis of its rhetorical character.

Content analysis calls for the quantification of content elements. Therefore, the content under examination must be broken down into units which then are classified and scored for frequency representativeness. A unit of analysis
can be a single word, phrases, sentences, lines, pages, or whole productions (books), for instance. Just as there are no established ground rules for the formulation of categories, so there are none for the selection of suitable units of analysis. Both the formulation of categories and selection of units are equally subjective. Each researcher must determine which categories and units are appropriate for his particular study.

The preceding discussion about the main elements of the process of content analysis is summarized in Figure 1. The diagram includes the elements of: question posing and frame of reference, sampling and categorizing, recording and counting content units according to objective rules, and, finally, interpretation of research findings. These steps are presented in more detail in the next chapter.

In sum, the term "content analysis" describes a research technique which focuses upon the systematic, objective, and qualitative description of a communication or series of communications. Its purpose is to enable a researcher to improve the quality of inference from communication by considering all relevant material, not just a part of it. It provides a well-thought-through system for the analysis of complex communications, i.e., a type of information retrieval system that is precise and complete if properly administered.
Figure 1

The Main Elements Involved in Content Analysis
This, then, is content analysis in very general terms. As a methodology, it has been applied in numerous studies. In each case, the results and significance of the study depended on the researcher getting started in the right way. Unless there is a sensible way underlying the analysis, it is worth little to go through the rigor of the procedure, especially when it is so arduous and so costly of effort. It is this writer's intent to accomplish this proper start in the next chapter.
CHAPTER III

METHODOLOGY

This chapter presents a brief description of the specific research paradigm of the study, followed by an explanation of the series of operations utilized in the study.

The General Research Paradigm--A Quasi-
Qualitative Content Analysis Method

To accomplish the previously stated purpose of this study it was necessary to focus on the analysis of the treatment given different aspects of organization development in various sources of written communication. This meant that before a research design could be developed the researcher had to familiarize himself with the general body of content (OD) in advance (Chapter II). This helped provide an information base regarding research design considerations.

An initial consideration was putting substance into the problem through the formulation of appropriate questions for investigation. The questions were derived partly from introspection on the part of the researcher, partly from reading publications on OD, partly from reviewing previous
studies of this general kind, and partly from interviews with OD practitioners in the field. From these sources a set of three questions was constructed. These questions are posed on page 36 of this chapter. The questions were constructed before any of the actual analysis was undertaken and even before the analysis scheme was set up. The balance of the study involved sampling, developing a coding scheme, establishing categories and units of analysis, dealing with certain technical considerations of validity and reliability, and considering the problem of inference.

There was a progression in the design of the study. The questions were derived from the nature of the problem and in a sense helped to refine it. The general categories for analysis were contained in the questions and they in turn were translated into concrete, specific indicators for purposes of the actual analysis. The actual results were then generalized and applied to the level of the categories and thus constituted a test of the questions under investigation. The detailed research operations that follow show this progression.

To this point the discussion has dealt with a generalized description of the research design used in the study. However, it must be pointed out that the detailed operations that follow are more closely what is termed "quasi-qualitative analysis" in the sense that the study is
a non-numerical study. The study did utilize qualitative analysis containing quantitative statements in rough form, so to speak. This will become apparent in the remainder of the chapter.

The Specific Operations

The remainder of the chapter outlines the specific operations used in the study. They include (1) generation of appropriate questions, (2) selection of the sample of documents, (3) the determination of a classification system, and (4) presentation of research findings.

The Questions

The problem of this study was derived from concern about traditional practices used in industrial arts education to develop personnel who operate industrial arts programs. Traditional programs were viewed as lacking and unable to generate organizational excellence in industrial arts programs. A strategy called OD was proposed as a possible technique that might find application in industrial arts personnel development. Thus, part of the problem became to describe salient features of OD. The crucial step now was the formulation of appropriate questions about the nature of OD.

As mentioned earlier, the researcher had become familiar with the general body of OD content. It soon became
clear that a pattern could be conceptualized from the written content. First, OD was concerned with changing values and concepts concerning the nature of people in an organizational context. These values had exerted a powerful influence on the mechanisms and processes for developing more fully-functioning organizations. The focus of OD is usually on change and is directed toward improving organizational effectiveness. The values provide the guidelines and direction for what will be undertaken in an OD effort.

A second feature about OD is concerned with how the program will evolve and be sustained. This involves mechanisms and processes. The mechanisms of OD consist of a growing collection of techniques and methods aimed at developing new organizational learning and new ways of coping and dealing with problems. The last feature of OD is process which involves a number of interacting and interrelated activities dealing with the techniques and methods of OD.

Viewing OD in this manner, i.e., using "values," "mechanisms," and "processes" as a frame-of-reference, is analogous to the creation of a bridge. First, there must be some value in building a bridge. Perhaps there is a need to span a body of water to improve transportation conditions. The actual building of the bridge (the mechanisms) varies with time and is related by differential considerations. For example, deciding "what" type of bridge to build requires such considerations as deciding whether it should be a fixed
or movable bridge, whether to place the roadbed on top of the supporting structure or so that the traffic passes through the structure, and so on. Mechanisms also deal with the tools, materials, and abilities required for actual construction of the bridge. This would include the hammer and rivet of the bridgemaker as well as his knowledge and energies. Process in bridge building would simply be the sequence of actions from beginning to end that leads towards a particular result, i.e., the completion of the bridge.

Thus, the questions posed at this point in the study are simply:

1. What are the values of OD?
2. What are the mechanisms of OD?
3. What are the processes of OD?

Finding answers to these questions will provide the frame-of-reference for applying OD to industrial arts programs, the ultimate purpose of this study.

Selection of the Sample

As mentioned earlier, the writer had become familiar with the general body of OD content. It soon became very clear that there was much content written on the subject. A question arose as to how to determine a sample of publications that would be representative of the body of content. A strategy was devised that involved the selection of benchmark works on organization development. By "benchmark" is
meant a publication that serves as a standard by which others (publications) may be compared or measured. How the benchmark works were determined is described next.

Since content analysis is time consuming because there is so much communication content, a method of sample construction which was economical of administration had to be devised. One authority states that "...a small, carefully chosen sample of the relevant content will produce just as valid results as the analysis of a great deal more—and with the expenditure of much less time and effort" (Berelson, 1971, p. 174). However, the literature of content analysis does not yield principles of sample construction for content analysis (Berelson, 1971, p. 175). Holsti (1969, p. 143) points out when the purpose of the research is a purely descriptive one, validity of content is usually established through the informed judgment of several recognized authorities in the field of inquiry. This is often accomplished by soliciting the opinions of a panel or jury of authorities. However, the selection of benchmark works could be made in another manner equally valid and reliable. Figure 2 shows the general procedure for determining the benchmark works.

First, it should be noted that sample selection was a multistage operation. First, the universe of all OD publications had to be considered. Next, a number of decisions were made to limit the field somewhat to make it more manageable. For example, what sources of publications
Figure 2

Multistage Diagram of How Benchmark Works Were Determined
should the researcher consider? OD efforts were not the exclusive domain of the U.S. However, only those U.S. publications published in the English language were considered. Still the sampling process at this point was far from complete for now the extent of the content to be investigated must be considered.

Surely the researcher did not want to analyze all publications in OD printed in the English language. Coding time considerations would prohibit such a task. Suppose that in response to this obvious problem the investigator chose to sample only publications printed in the United States for a certain period of time? The question then arose as to the particular time period within which the sample was to be drawn. However, a simple solution to this problem was provided by Bennis (1969), a noted OD theorist. He states (1969, p. 2): "Organizational development is new and still emerging, only a decade old, so its shape and potentiality are far from granted and its problems far from solved." The key words here are "new and emerging." OD has not come fully into its own. It is "only a decade old." Thus, the period from 1963-1975 was used to narrow further the period under consideration. Thus, the coding task was brought into a more manageable proportion, and the quality of the obtained data was not seriously affected.

The next step was to narrow the OD sources even further by selecting a representative cross-section of a body of
writings. This matter was accomplished by what Carney (1972, p. 140) calls "purposive sampling: the analyst, from his knowledge of the press, selects the material which best represents the item or issue involved. This is not a random sampling process; subjective judgement is involved." This representativeness included the following groups of publications:

(1) A current series of nine books on OD,

(2) A book composed of 38 articles on OD divided into a six part classification,

(3) A journal devoting seven articles exclusively to OD theory and practice, and

(4) A book containing a composite of 21 works on the methodology of OD.

The publications were chosen for a number of reasons. First, they had a reputation for being generally reliable sources. Secondly, there were a sufficient number of publications to complement each other by providing substantial amounts of data on OD. Finally, it was believed that using multiple sources from which to select the top ten publications would provide ample opportunity for various perspectives and points-of-view to enter into the final OD analysis, the results being, hopefully, a better picture of what OD was all about.

The frequency (or number of times) which each publication appeared in the various documents was tabulated. This
was time consuming because first the footnotes and bibliographies were duplicated (Xeroxed), then cut and placed in piles according to author(s) and then counted. The ten publications that appeared the greatest number of times became the sample. The publications were then placed in rank order.

Determining a Classification System

In addition to selecting the 10 benchmark works, the following procedures were concerned with formulating and adapting categories to the problem and to the content. The formulation and definition of appropriate categories takes on central importance since the categories contain the substance of the investigation (Berelson, 1971, p. 147). The basic requirement is the coding of content which identifies and compares in some way relevant dimensions of content. This results in a better method of focusing upon significant aspects of communication from the mass of input by filtering from it those relationships of potential import and to reconstruct the pattern and flavor of the content units to provide greater understanding of the content.

A category system represents an attempt to summarize quantitatively the essentially qualitative features occurring within the observed communication content. In its simplistic form, this involves a frequency count of the occurrence of specified categories of events. A category is
simply a description of an assertion that applies to a potential, particular situation. A group of these descriptions, quite literally, a checklist, constitutes a category system. Given a category system, the task of the researcher is to make a notation of the number of times that a particular observed action or event falls into the various categories constituting the system. To be remembered is the fact that categories are, in a sense, binary, since a given event must be coded as either completely meeting the demands of a given category, or as completely failing to satisfy these requirements, i.e., it either occurs or does not occur. So much for the generalized statements about category systems.

What about the approach used in this study? Cited earlier in this chapter was the analogy that OD was similar to the building of a bridge. To build a bridge or to "build" an OD effort required considerations of values, mechanisms, and processes. Also, cited earlier in this chapter was the observation that there was a progression in the design of the study, i.e., the questions of the study were derived from the problem, the general categories were contained in the questions, etc. The basic question in this part of the study dealt with what are the values, mechanisms, and processes of OD? Thus, the classification system used in the study incorporated these three components as the basis for the classification system.
Berelson states that values, as a category for content analysis, are also called "goals" and "wants;" what people want or get (1971, p. 153). The value category deals with the ends of action. The means employed to realize the ends provides a category called methods, also called "actions" (p. 154). In this study "methods" could be compared to the theory of OD mechanisms, i.e., the techniques aimed at developing organizations that reflect the values of OD.

Bennis states that "Planned change can be viewed as a linking between theory and practice, between knowledge and action. It plays the role by converting variables from the basic disciplines into strategic instrumentation and programs" (1965, p. 340). The process of OD simply involves the linking of OD theory into practice by using mechanisms based and formulated on certain values and/or beliefs into programs of action.

The remainder of the chapter will deal with the specific problems of creating a classification system using values, mechanisms, and processes as categories of content.

The Method for Classifying and Scoring OD Values

The various manuscripts from the sample were studied to determine the OD values. A value was considered to be a "judgment attributing some worth or importance to a certain thing, action, or entity." Included were beliefs,
assumptions, generalizations, and principles about the nature of people in an organizational context. The classification of OD values was one of the more difficult tasks in the study simply because the values were not always stated explicitly but more often than not were stated implicitly.

Carney suggests (1972, p. 172) that there is no one ideal or best way of carrying out a content analysis, that the analyst must pick "...that combination which suits his particular situation," and must alter here and there to deal with the realities of the problem. It soon became apparent from reading the benchmark works that a pattern seemed evident regarding values making Carney's observation a true one. There was a dichotomizing in the content that showed direction to prevailing trends in OD theory. Therefore, the content was quantified by dichotomizing (Carney, 1972, p. 174) both implicitly and explicitly stated values. Such an approach borderlines on what Carney (1972, p. 178) describes as being between quantitative and qualitative assessments which involve non-frequency content analysis. Berelson calls this "...adding the qualitative dimension to a quantitative analysis" (1971, p. 114).

The unit selected was the item, i.e., the various books in their entirety. The item as a unit classifies material in the large, so to speak, and is appropriate for studies dealing with conceptual content and relationships among concepts and meanings (Berelson, 1971, p. 146). By using a
consolidated format of OD values, quantification was greatly simplified by saving time and space.

The analysis of the ten books followed, and the results were presented like any quantitative data, i.e., by the use of tables and graphs. This essentially was the system developed to accomplish this part of the study.

The Method for Classifying and Scoring OD Mechanisms

The next step was to assess the mechanisms of OD based on the same benchmark works used to determine the values of OD. The communication content was analyzed by content analysis and the results placed in a taxonomical arrangement. How this was accomplished is described next.

First, the various benchmark works were studied. Each source considered various mechanisms to bring about the OD system of management. Several approaches for classifying the mechanisms were included but each presented different schemas of classification. Therefore, the system used in this study was developed as follows.

Often, complex relationships require a simple approach to their understanding. Human organizations are an example. Leavitt (1970) provides a scheme about the nature of organizations that will illustrate this fact. He recommends that an organization should not be thought of as "static charts or as milling collections of people or as smoothly oiled man-machine systems but as rich, volatile, complicated but
understandable systems of TASKS, STRUCTURES, TOOLS (technology), and PEOPLE in states of continuous change" (1971, p. 317). He suggests that an organization can be changed by manipulating any of these organizational variables. By changing STRUCTURE he means changing the organizational chart and the locations of authority and responsibility, by changing the TECHNOLOGY of an organization he means such things as improving the analytic quality of decisions and applying new techniques for controlling and processing information of tools and machines used in the physical plant, and by PEOPLE change he means a human approach by working on persons and interpersonal relations. By TASK he simply means the problem to be solved or the job to be done. But he also warns that "we must never for a moment forget that when we tamper with any one of these variables, structure, or technology or people, we are likely to cause significant effects on the others, as well as on the task" (1971, p. 325). This interaction of variables is shown below.

Figure 3

LEAVITT'S MULTIVARIATE MODEL
Leavitt distinguishes between structure, technology and people as entry points for changing organizations and notes that changes in any one are likely to create pressures for change in each of the others. This point provides a categorization and evaluation of approaches to organizational change mechanisms--approaches that differ markedly in their emphasis and ordering of the various organizational variables. Thus, Leavitt's model provided simple and convenient major units for placing or classifying OD mechanisms and was used in the study.

Next, the various mechanisms were placed in a matrix, and then put into taxonomical order. This was important for a number of reasons. For example, such a classification scheme contributes to organizing and integrating what is known about the area in which the activity is being conducted. Finally, it demonstrates the voids in a body of knowledge and indicates research needed to fill the gaps. The growth and refinement of every body of knowledge seemed to proceed in this way.

What is the method of taxonomic inquiry? A taxonomy is an arrangement of classes of phenomena in an hierarchical fashion. The functional objective of taxonomic inquiry is to provide ways of ordering phenomena which will reveal some of their essential properties as well as their interrelationship. One way to create a taxonomy is by subordination of some classes to others for the purpose of setting the
Classification by subordination is not restricted to a single step between two levels of classes but may continue for a large number of levels. This arrangement is called a hierarchy. A hierarchy is a systematic framework with a sequence of classes (or sets) at different levels in which each class (except the lowest) includes one or more subordinate classes. Hierarchies involve principles of priorities, and to the extent that these principles are derived from real relationships, the hierarchical classification is termed "natural." However, the principles used in assigning priorities may be more or less arbitrary and hence designation as a "natural hierarchy" may be controverted.

Since OD mechanisms are all the product of man's inventiveness, there is no natural relationship among them to discover. Therefore, some artificial means of classification must be chosen. The best means, it would seem, is the means that is the most useful. The means selected in this study is described now.

Considerable information is available concerning the development of classification systems (see Bloom, et al., 1956; Werkmeister, 1948). One writer points out that perhaps the most important rule in any classification system (first criterion) is that the different species of a given genus should be mutually exclusive (Werkmeister, 1948, p. 274). This simply means that there should be no
overlapping between groups.

Although an attempt is made to maintain clear distinctions with regard to various classifications there may necessarily be some overlap. This overlap is analogous to the one that exists when OD mechanisms are employed in reality. Expanding on this "first" rule (first criterion), the following additional criteria need to be applied to the conceptualization of a taxonomy of OD technologies.

The second criterion for distinguishing an OD is that it must be capable of changing an organizational variable rather than technologies that are solely or primarily concerned with changing individuals. For example, individual psychotherapy is not considered unless it is part of a technology designed to change an organization variable.

A third criterion is that an OD mechanism must be planned in its implementation. If it is not planned, it is excluded. This consideration is central to Beckhard's definition of OD which was cited earlier in this dissertation.

It should be stated that this development must not be construed as an ultimate structure of the body of knowledge from which all mechanisms for OD are selected. The structure presented in this study was therefore perforce representative. Further work seems needed in order to redefine and classify the content of OD mechanisms. Despite this, the structure presented above served as an adequate initial guide in the development of a conceptual framework of OD
mechanisms for use of OD in industrial arts education programs, the immediate goal of this study.

**The Method for Classifying the OD Process**

In the preceding parts of this chapter the methodology for determining the values and mechanisms were presented. The classification of data was somewhat involved and detailed. However, the process of OD involved only four models from the list of ten OD benchmark works. Therefore, there was no elaborate attempt to classify the four models. Instead they were reviewed for their basic functions and salient features individually. A discussion was included to show how the OD process was congruent with systems theory, a central point in OD theory and practice.

**Presentation of Research Findings**

What content analysis does is to provide a more precise description of the content in terms meaningful for the problem at hand. After the questions, sampling, units, and categories have been selected, implemented, and presented, conclusions and interpretations of wider application than the content itself must be completed. In other words, the data resulting from the investigation (about the nature of OD) must be passed on to generalizations dealing with the ultimate purposes of this study. Therefore, the remaining chapters deal with this task. The next chapter will execute the methodology outlined in this chapter.
CHAPTER IV

RESULTS OF DATA ANALYSIS

The major purposes of the study were (1) to determine the values, mechanisms, and processes of OD as reflected in ten selected benchmark works on OD; and (2) to use the results of this part of the investigation to provide a frame-of-reference for the application of OD to industrial arts programs. In order to achieve the first purpose, the present chapter reports the results of data analysis which was done as specified in the last chapter. The second part of the study is reported in Chapter V.

This chapter will (1) present the ten benchmark works on OD which will then be used (2) to analyze the values of OD using content analysis, (3) to develop a taxonomy of OD mechanisms, and (4) to study the process of OD.

The OD Sample of Benchmark Works

Note that Figure 2 shows how the universe of OD literature was narrowed down to manageable terms by a multistage selection. Only publications written in the English language and published in the U.S. from 1963-1975 were considered. Also, the universe was narrowed even further by
"purposive sampling" using subjective judgement as outlined on page 40 of the last chapter. This involved a cluster of OD sources appearing in a series of reputable OD publications.

The issues of the titles (complete listing in Appendix A) were selected by counting the frequency of footnotes, references, and notations appearing in the following publications:

1. The Addison-Wesley Series on Organization Development (a current series of nine books).
2. Social Interventions by Hornstein et al., (a book composed of 38 articles on OD divided into a six part classification).
3. The Journal of Applied Behavioral Science, Volume 10, No. 4, October-December 1974. (Publication was devoted to 7 articles dealing exclusively with OD theory and practice.)
4. Social Technology by Burke and Hornstein (editors). (A composite of 21 works on the methodology of OD.)

The frequency with which (or number of times) each publication appeared in the various documents above was tabulated. The ten publications (benchmarks) that appeared the greatest number of times from the 633 references (Appendix B) published from 1963-1975 became the sample for the study. The rank order of the top ten benchmarks was:
Of primary importance in content analysis is the extent to which the "...analytic categories appear in the content, that is, the relative emphasis and omissions" (Berelson, 1971, p. 17). Thus, by counting the frequency of footnotes, references, and notations of the OD sample, quantification was possible to establish numerically the top ten works that were considered to be benchmarks from the body of content surrounding OD.
The Classification and Scoring of OD Values

This part of the chapter presents an appraisal of the OD form of organization. "Appraisal" here means "value analysis," i.e., the changing values and concepts concerning the nature of people in an organizational context based on the OD sample. The value base is extremely important because values provide the guidelines and directions for what will be undertaken in an OD effort. Values have a powerful influence on the way that OD is conducted. In particular this part of the research effort should help clarify the basic values on which OD is based.

The various publications from the OD sample were read and studied. It became apparent that both explicit and implicit references were made to OD values in a dichotomizing manner. There was an apparent scale, continuum, or dimension of two basic yet simple themes that prevailed throughout the various publications. This provided a sort of quantification "in the rough" which yielded telltale clues about the writers of the various publications.

Increasingly, it became apparent that what was being "dichotomized" were McGregor's Theory X - Theory Y assumptions about human behavior in organizations. On the one hand, Theory X assumptions viewed man as inherently evil, lazy, destructive, hurtful, irresponsible, narrowly self-centered, and the like. Within an organization managerial practices are designed to control, limit, push, check on,
inhibit, and punish. People are treated arbitrarily. There are sinister coups taking place. Much of the time and energy of the members of an organization are devoted to playing games with each other, backbitting, politicking, destructive competition, and other dysfunctional behavior.

Theory Y assumptions are basically 180 degrees out of place with Theory X. The nature of man is more centrally inclined toward the good, is internally motivated toward positive personal and social ends, and is oriented toward those kinds of responsibilities which promote and allow more integration of individual and organizational goals, and more self-control (or self motivation) on the part of the individual as a means of using the resources of the organization's members toward organizational health. Theory Y values entail minimizing bias in interpersonal relations through involvement and awareness of intentions, taking responsibility for self and being responsible for others, and focusing on the various action possibilities that exist or can be created rather than a singular approach to organizational problems. Democracy is practiced in management simply because it is believed that people will be better workers and committed to organizational goals if they have a voice in those decisions that affect them.

By using Theory X - Theory Y as a consolidated format, quantification was greatly simplified by saving time and space. This fact is evident as the various benchmarks in
the OD sample were analyzed for OD values orientations. The general thesis and/or evidence contained therein was summarized to capture the general theme of the manuscript. Supporting facts that "showed" a dichotomizing trend in organizational values were copied verbatim and organized under one of the two polar positions (Theory X or Theory Y). Evaluation of the manuscripts for organizational values orientation follows in rank order from the OD sample.

Benchmark #1. Lawrence and Lorsch in their book Organization and Environment—Managing Differentiation and Integration propose what is labeled "contingency organization theory" and provide a model for its inclusion in organizations. Insight into how the authors arrived at the model and the values required to incorporate its use in organizations is provided in the following.

Early in the benchmark the authors present the nature of traditional management theory. They identify two rough sets of schools, the classical school which emphasizes highly structured organization and the human relations school that features a lower one. They state: "...one set would tend to increase the sharing of influence, the other, to concentrate it (1967, p. 194)."

They further state that the traditional organizational theory:
...seem(s) to carry with it a thrust in one of two directions—either toward greater order systematization, routinization, and predictability, or toward greater openness, sharing, creativity, and individual initiative. One thrust is to tighten the organization; the other, to loosen it up (1967, p. 161).

They pose the questions: "Are managers choosing wisely the right time and place for the application of these techniques? Or are they being applied across the board, without discrimination (p. 184)?" They conclude that "...most managers are still using a disjointed combination of classical and human relations theory (p. 209)." The authors are essentially identifying the two polar positions of Theory X and Y.

What the authors attempt next is to fit these and other various theories into a sensible and consistent pattern. To gain this understanding the authors looked at studies of organizations—"...of how organizations or major parts of them function, based on the systematic collection of empirical data...and studies that...were multivariate...and studies that are contingent in the sense that they try to understand and explain how organizations function under different conditions (pp. 185-186)."

The sample of contingency studies emphasized environmental and task variables and included those of Burns and Stalkeo, Woodward, Fouraker, Chandler, Udy, Leavitt, Fiedler, Vroom, and Turner and Lawrence. The purpose of studying such research was to "...use this research to
throw new light on some of the current contradictions and confusion in organization theory" and to show "...how organizations must vary if they are to cope effectively with different environmental circumstances (p. 159 and 187)."

The general conclusion from the studies was a need to move away from traditional organizational theories (scientific management and classical theories) and toward a contingency theory of organization. Simply stated, this meant a movement towards a systems approach to understanding complex, multi-unit organizations.

In the final chapter practical application of the contingency model of organization is reported. It will not be reported here. The details are available to any interested reader in the publication. What the authors do say explicitly about organizational values in their model is the need for managers to take a:

...designer's attitude toward organization.
This could be called the social-engineering mood...When it comes to application, the orientation of the teacher is also essential.
One potential value of the differentiation and integration outlook lies in its use as an educational tool. When people live day in and day out in a specialized role, they tend to see their own organizational surroundings in terms of that role. The more personally involved in their jobs they become, the more this is true. Such involvement often leads them to personalize the conflicts that arise with representatives of other organizational units. Of course they know logically that an organization needs different
kinds of specialists, but they forget the full meaning of this when they run into a particular person who is 'impossible to work with.' Then they all too readily turn to an explanation based on personality traits that writes off the individual as an oddball and justifies their own withdrawal from or forcing of conflict (pp. 216-17).

They further state that training built on differentiation and integration concepts and findings can be developed to improve situations like the one just described. They suggest that such training "...is not unlike that of a sensitivity training session, as people learn more about one another and the reasons for their differences. These exchanges can take place within a framework that is clearly related to task accomplishment. In such a setting applied researchers discover with a shock how differently they often think and work from their fellow researchers who are involved in more basic projects (p. 217)." Other educational methods such as confrontation meetings in conflict resolution, development of interpersonal competence, development of effective decision-making systems, and so on are utilized to improve organizational performance. Other features of the contingency model are spelled out later in this chapter.

The above discussion shows an orientation toward values that are similar to the assumptions of Theory Y (McGregor) and "the arguments of Bennis" in the context of the multivariate organization. The discussion now turns to benchmark number two.
Benchmark #2. An analysis of Blake and Mouton's book

The Managerial Grid proposes what is termed "Grid OD" as a model for improving organizations. How the authors developed their model is provided in the following.

The authors indicate a universal implied reference to organizational values. They first give an analogy of traditional organizational assumptions similar to Lawrence and Lorsch. They state:

Early contributors to management theory stressed that there were specific methods needed to control and direct the work of others. The assumptions were that means must be found to delineate what people's tasks were, and then to maintain positive forces which would insure that people performed as ordained.

As students of behavior in the social sciences became more interested in the industrial arena, they began to demur with this. Their research began uncovering the beneficial effects when behavior in an organization was more highly self-controlling than a response to imposed controls. They discovered that less authoritarian methods of leadership produced gains in cooperation, effort, and effectiveness.

A dichotomy was created. Proponents of one side were identified as the "scientific management" school; the opposite as the "human relations" school. A search for proof of the benefits of one type of leadership vs. the other was started—and continues to this day. This book on the Managerial Grid is unique in that it avoids the argument of one extreme vs. the other, and shows the possibilities in various blends of leadership styles.

We have long needed a better system... (1968, p. i)
The "better system" that they refer to is outlined in the basic purposes of OD that are designed to eliminate:

1. Common sense-based management assumptions and to replace them with systematic management concepts that increase individual involvement, commitment, and creativity towards sound problem-solving and production.

2. Unproductive thought patterns within each individual and to replace them with mental attitudes that result in a better identification of problems and novel solutions.

3. Interpersonal and intergroup blockages which prevent effective discussions and to replace them with interpersonal openness and candid communication that can sustain sound deliberation and insure effective problem-solving between individuals and groups.

4. Organization traditions, precedents, and past practices which stifle productive effort and creative thinking and to replace them with standards and values which promote efforts of excellence and innovation.

5. Unresolved problems preventing attainment of organization competence by (a) defining what they are, (b) designing solutions to them, and (c) insuring their elimination by executing the plan(s) (p. 255).

Blake and Mouton refer to their model for organizational development as Grid OD, a complex educational strategy involving six distinct phases extending over a period of time. The details of their model are explained later in this chapter. However, the organizational values subsumed in the model are what the authors term a "9,9" approach to OD. A "9,9 Grid" is an expression of a management theory where a high concern for production is matched with a high concern for people. They state:
...in the 9,9 managerial style there is no necessary and inherent conflict between organization purpose of production requirements and the needs for people. Under 9,9 effective integration of people with production is possible by involving them and their ideas in determining the conditions and strategies of work. Needs of people to think, to apply mental effort in productive work and to establish sound and mature relationships on an hierarchical plane and with one another are utilized to accomplish organizational requirements. A basic aim of 9,9 management, then, is to promote the conditions that integrate creativity, high productivity, and high morale through concerted team action (p. 142).

They continue:

The 9,9 orientation views the integration of people into work from a different perspective than other approaches. In contrast with 9,1, the solution for a given problem is not necessarily defined by the boss' authority. Unlike 5,5, the 9,9 approach is oriented toward discovering the best and most effective solution in a given situation, not the one defined by tradition, etc. By utilizing both the mental and execution skills of people, this approach aims at the highest attainable level of production. This highest level is only possible through work situations that meet mature needs of people. Sociability for the sake of togetherness, status based on aspects unrelated to work, or power exercised for its own sake, or out of frustration, are not viewed as mature needs. Rather, accomplishment and contribution are seen as the critical aspect of organization performance and individual motivation. When one is met, the other is gratified automatically (pp. 142-143).

Of course, these values represent a multivariate organizational approach that "fit" into the McGregorian Theory Y formulation. The discussion now turns to benchmark number three.
Benchmark #3. In Blake, Shepard, and Mouton's *Managing Intergroup Conflict in Industry* an OD mechanism is presented as one mechanism for improving organizations, i.e., "systematic formulation of intergroup dynamics." The basis for the writers' mechanism is discussed next.

The story concerning implicit OD values as the basis for developing "intergroup dynamics" is much the same as the preceding two benchmarks (books). In the preface of their book they immediately point out that "...programs of organizational improvement depend on...knowledge and wisdom in the use of findings in various areas such as interpersonal and group dynamics, leadership, motivation, communication and organization theory (1964, p. vii)."

However, the authors do not use the same approaches of traditional management theories and the need for newer alternative forms of management and organization schemes presented in the previous benchmarks (books). But the emphasis is still the same, i.e., toward OD values similar to Theory Y.

A simple review of the various chapter headings provides cues or indices of OD values. Consider the following chapter headings as evidence:

Chapter 1. Foundations and Dynamics of Intergroup Behavior

Chapter 4. Using Third-party Judgment to Resolve Intergroup Disputes
Chapter 9. Problem-Solving: A Third Approach to Agreement

Chapter 13. An Intergroup Problem-Solving Approach to Mergers

The authors term their model of "systematic formulation of intergroup dynamics" as the "problem solving approach" which "...aims at bringing about conditions of effective joint effort based on mutual trust, respect and confidence (p. 154)." "Effective joint effort" is similar to the OD values collaboration and consensus; "mutual trust" is self-explanatory. "Respect and confidence" implies a worth of human dignity similar to Theory Y assumptions.

Not surprisingly the values of this benchmark are similar to benchmark number two (The Managerial Grid) simply because it was written by the same authors. The discussion now is directed to benchmark number four.

Benchmark #4. Personal and Organizational Change Through Group Methods: The Laboratory Approach by Schein and Bennis is a benchmark dealing with an educational medium called laboratory training which can be employed to influence individual learning and organization development. The authors define laboratory training as "...an educational strategy which is based primarily on the experiences generated in various social encounters by the learners themselves, and which aims to influence attitudes and develop competencies toward learning about human interactions"
The human values which guide laboratory training are those "...of inquiry, examination, diagnosis, and experimentation as opposed to action, procedure, strategy, operation and deed (p. 7)." The authors believe that:

...this strategy is capable of releasing some important forces which can enhance man's ability to control more effectively and creatively his human environment. At the same time, we think that the understanding of these change processes will help in reducing the darkness around, and in building a viable theory of, human change (p. 9).

Two main value systems provide a foundation for laboratory training, the values of science and the values of democracy. The first set of values is concerned with an attitude—an orientation toward truth and discovery. From an ambiguous and unstructured situation participants must define and organize the environment. They are "...prodded and rewarded by staff members to question old and to try new behaviors"; they "...are reinforced by concepts to probe, to look at data and realities, to ask 'why' (p. 32)." Essentially participants are transplanted from their work environment where things are routine and taken without question to a setting which derountinizes and upsets expectations. Ordinary control mechanisms which automatically govern behavior are absent. There are no regulating devices or traditions for making decisions or directing the tasks of the group. Thus, there is an ambiguous situation regarding
group behavior. This creates a need for the participants to find things out for themselves, to create control over their activities, and to develop a sense of community. Therefore, processes usually taken for granted must be restructured and reestablished. Such a complex process creates conditions which encourage the participant to think about his behavior, to expand his consciousness of human interactions, and to think about how to choose to behave. In such a relationship openness in communication, feelings, and ideas encourages individuals to be themselves inwardly and outwardly with themselves and others.

The second set of values in laboratory training deals with the values of democracy in the sense that laboratory training sessions minimize the influence of the traditional authoritarian teacher or staff member. Rather the participation, involvement, and self control of the participants are encouraged. This does not mean that the staff members do not manipulate the learning environment and participants. Rather a collaborative relationship based on trust and confidence is encouraged. The authors point out:

...the staff avoids...patterns of dependence and counter-dependence with the delegates... the interdependence of the delegate and staff in the learning process is emphasized and acted upon. As the laboratory proceeds, more and more joint planning between delegates and staff is undertaken (p. 33).

From the preceding discussion about the nature of laboratory training, especially about the values of science
and democracy, the key point is that each participant learns how to relate to other group members and vice versa. This key point is also the key causal event in maximizing organizational effectiveness.

This benchmark clearly sets out the philosophy of Theory Y in an implicit way. The benchmark is in effect showing how the OD form of management is needed. By experiencing an unstructured, ambiguous situation where routinized, traditional control of behavior is lacking a learning experience is created where teamwork and authentic involvement are paramount to the participant. To be remembered is the fact that this benchmark is concerned only with an educational technique that can find a range of applications to organizational problems. Laboratory training in itself is not a cure-all for organizational problems. Rather, it is an educational device where the goal is to focus on the interpersonal relationship of the group and then to change the insights gained thereby to change the home organization.

The discussion is now directed to benchmark number five.

Benchmark #5. Beckhard's Organization Development—Strategies and Models was written to explain the basic tenents of OD, particularly the reason for its emergence and how various strategies are developed. Insight into the values of OD in the publication can be gained by Beckhard's list of assumptions about OD. He lists the following:
1. The basic building blocks of an organization are groups (teams). Therefore, the basic units of change are groups, not individuals.

2. An always relevant change goal is the reduction of inappropriate competition between parts of the organization and the development of a more collaborative condition.

3. Decision-making in a healthy organization is located where the information sources are, rather than in a particular role or level of hierarchy.

4. Organizations, subunits of organizations, and individuals continuously manage their affairs against goals. Controls are interim measurements, not the basis of managerial strategy.

5. One goal of a healthy organization is to develop generally open communication, mutual trust, and confidence between and across levels.

6. "People support what they help create." People affected by change must be allowed active participation and a sense of ownership in the planning and conduct of the change (1967, pp. 26-27).

Concerning values in organizations Beckhard claims that:

...management will be more and more articulate and explicit about the kind of environment and the kind of values about people and their work that should pertain in their organization...the company will attempt to operate in such a way as to: accept people as they are, expect responsible behavior, support individuals and personal growth, assist individuals to develop their competencies, enlarge the opportunity for impact of each individual in the company in every practical way, and lend every effort to resolve conflicts through discussions and fair judgment, minimizing arbitrary rules and use of authority (pp. 118-119).
Such a value orientation is very similar to Blake and Mouton's 9,9 Grid which has a high regard both for production and people—again the values of a Theory Y orientation prevail.

Benchmark number six is discussed next.

Benchmark #6. "The Confrontation Meeting," Harvard Business Review, Vol. 45, No. 3, March, 1967 by Beckhard is a benchmark concerned with an activity that "allows a total management group, drawn from all levels of the organization, to take a quick reading on its own health, and--within a matter of hours--to set action plans for improving it (1967, p. 149)." In this sense, the article is similar to the article cited above that dealt with laboratory training and would be similar in organizational values (which are not stated explicitly). In other words, the article deals with a category more properly identified with the mechanisms of OD.

Beckhard claims the following benefits from using the confrontation meeting:

- An accurate reading on the organization's health.
- The opportunity for work units to set priorities for improvement.
- The opportunity for top management to make appropriate action decisions based on appropriate information from the organization.
- An increased involvement in the organization's goals.
- A real commitment to action on the part of subgroups.
A basis for determining other mechanisms for communication between levels and groups, appropriate location of decisions, problem solving within subunits, as well as the machinery for upward influence (p. 153).

With these kinds of organizational benefits it is fair to say that the value orientations are Theory Y formulations.

Benchmark number seven is described next.

Benchmark #7. Katz and Kahn (1966) (The Social Psychology of Organizations) do not contrast (dichotomize) traditional forms of management of today with an organization utilizing OD. However, they speak to this dichotomy in their assertion that:

Perhaps the greatest organizational dilemma of our type of bureaucratic structure is the conflict between the democratic expectations of people and their actual share in decision-making. Though the great majority of decisions have to be made by leaders, their followers can participate in the process psychological if they can share in the information about decision-making. By being informed, individuals, moreover, can mobilize public opinion to affect the decision process, and even if given groups are unsuccessful in achieving what they want, they may experience satisfaction in having meaningful participated. The need for such involvement has been stimulated by democratic teaching in the home and the school and reinforced by the values of the culture (1966, p. 469).

They argue for the development of open-system theory as a more dynamic and adequate framework for organizations today and as a replacement for prevalent classical organization theory (1966, p. vii). They discuss a number of normative theories of organizations including McGregor's which emphasize "the internal dysfunctional effects of conventional
models of organizations, particularly in terms of motivational costs (p. 75)."

Included in their benchmark are a host of social mechanisms designed to improve the human experience in a dimension of openness and intimacy (p. 392). They emphasize the need:

...for alternative ways of organizing human behavior for productive tasks and the accomplishment of social goals. One of the great pragmatic tests is the determination of what organizational forms produce and accomplish most, enhancing rather than depleting meanwhile the resources of the society they serve. This implies measures of organizational effectiveness which comprehend the needs of leaders and followers, shareholders and workers, consumers and citizens at large. One of the great dangers of this historical period is the dominance of an opposite doctrine (p. 472).

By "opposite doctrine" they mean traditional management assumptions and practices, by "alternative ways of organizing human behavior" they mean open-system theory. This analogy is similar to the dichotomy concerning management theories in several of the previous publications such as Beckhard, Bennis, and Blake and Mouton.

Katz and Kahn use the term machine theory to describe the classic model of scientific management, bureaucracy, and administrative management (p. 73). Man is viewed as a machine, a mechanical device with given sets of specifications for accomplishing a task. Organizations are thus designed according to a blueprint to achieve a given purpose. Such concepts as "machine theory" are seen in their clearest
form in military organizations and organizations engaged in the mass production of goods. However, machine theory has infiltrated organizational thinking in almost all types of organizations, including schools and other service organizations. Machine theory is, of course, a Theory X formulation.

Benchmark number eight is presented next.

Benchmark #8. "Patterns of Organizational Change," Harvard Business Review, Vol. 45, No. 3, May-June, 1967 by Greiner (1967) addresses the question: How does a "successful" change differ from an "unsuccessful" one? The benchmark discusses common approaches used by organizations such as unilateral authority and shared and delegated approaches. To answer the question the author conducted a survey of 18 studies of organization change. Specifically the studies considered the (a) conditions leading up to an attempted change, (b) the manner in which the change was introduced, (c) the critical blocks and/or facilitators encountered during implementation, and (d) the more lasting results which appeared over a period of time. Greiner lists successful change as those changes which (p. 22):

1. Spread throughout the organization to include and affect many people.

2. Produce positive changes in line and staff attitudes.

3. Prompt people to behave more effectively in solving problems and in relating to others.
4. Results in improved organization performance (p. 122).

It would appear that successful change requires organizational values similar to Theory Y formulations. Greiner advocates sharing of power (authority and influence) (p. 126), using interventions such as laboratory training where "...a large number of people collaborate to invent solutions that are of their own making and which have their own endorsement (p. 128)," and where people "...at all organization levels seem to be searching for supporting evidence in their environment--e.g., dollar savings or higher motivation--before judging the relative merits of their actions (p. 128)." Such activities are associated with Theory Y values.

The discussion now turns to benchmark number nine.

Benchmark #9. The Human Organization by Likert (1967) stresses the value of a relatively permanent organization made up of "supportive relationships" as an appropriate organizational form. He proposes that various groups in an organization at all levels should be tied together by an overlapping structure. Each group should have a linking pin person who is a member of the next highest group, thus serving as a means for communication and upward influence (1967, p. 50). Likert calls this form of management System 4 or participative management, i.e., a group form of organization as contrasted to traditional organizational structure
(Systems 1 and 2) which consists of a man-to-man interaction (superior-to-subordinate).

Likert describes his System 4 management theory by comparing it with traditional management theory (System 1 and 2). He states:

The traditional organizational structure (Systems 1 and 2) does not use a group form of organization but consists of a man-to-man model of interaction, i.e., superior-to-subordinate. In this model, starting at the top of the firm, the president has full authority and responsibility. He delegates to each vice-president specific authority and responsibility and holds each accountable. Each vice-president in turn does the same with each of his subordinates, and this continues down through the organization. The entire process—stating policy, issuing orders, checking, controlling, etc.—involves man-to-man interaction at every hierarchical level.

System 4 management, in contrast, uses an overlapping group form of structure with each work group linked to the rest of the organization by means of persons who are members of more than one group. These individuals who hold overlapping group membership are called "linking pins." The interaction and decision making relies heavily on group processes. Interaction occurs also, of course, between individuals, both between superiors and subordinates and among subordinates. At each hierarchical level, however, all subordinates in a work group who are affected by the outcome of a decision are involved in it. (A work group is defined as a superior and all subordinates who report to him.)

When the group process of decision making and supervision is used properly, discussion is focused on the decisions to be made. There is a minimum of idle talk. Communication is clear and adequately understood. Important issues are recognized and dealt with. The
atmosphere is one of "no nonsense" with emphasis on high productivity, high quality and low costs. Decisions are reached promptly, clear-cut responsibilities are established, and tasks are performed rapidly and productively. Confidence and trust pervade all aspects of the relationship. The group capacity for effective problem solving is maintained by examining and dealing with group processes when necessary.

It is essential that the group method of decision making and supervision not be confused with committees which never reach decisions except with "wishy-washy," "common-denominator" sort of results which the superior can say, "Well, the group made this decision, and couldn't do a thing about it." Quite the contrary! The group method of supervision holds the superior fully responsible for the quality of the decisions and for their implementation. He is responsible for building his subordinates into a group which makes the best decisions and carry them out well. The superior is accountable for all decisions, for their execution, and for the results (1967, pp. 50-51).

According to Likert's theory, every member of the organization, except at the very highest and lowest levels, should act as a "linking pin" between any two levels of the organizational structure. On commenting on how a System 4 organization is developed, he gives an insight into the value orientation by the kind of training required to help bring it about. He states:

Training to bring about cognitive, attitudinal, and skill changes must be compatible with the system of management in which that training is to be used. For example, sensitivity or managerial grid training are essentially System 4 in character and are incompatible with System 2. If such training is given, all components of the management system should reflect System 4 philosophy and practice (p. 125).
Such training is, of course, associated with Theory Y formulations.

The last benchmark is described next.

Benchmark #10. Schein's *Organizational Psychology*, while not stating OD values specifically, indicates a need for alternative organizational forms. Schein declares:

The complex interactions between how an individual is inducted into the organization, trained, assigned, and managed; the interaction between the formal organization and the various informal groups which arise inevitably within it; the disintegrative forces which formal organizational mechanisms stimulate among subgroups; and the inconsistencies which arise out of assumptions about man which fit formal organizational logic but not the realities of how he functions—all of these points argue for a redefinition of organizations along more dynamic lines (1965, p. 89).

Schein lists salient organizational conditions for effective organizations. He states:

1. Successful coping requires the ability to take in and communicate information reliably and validly.

2. Successful coping requires flexibility and creativity to make the changes which are demanded by the information obtained.

3. Successful coping requires integration and commitment to the goals of the organization, from which comes the willingness to change.

4. Successful coping requires an internal climate of support and freedom from threat, since being threatened undermines good communication, reduces flexibility, and stimulates self-protection rather than concern for the total systems. (pp. 103-104)
The organizational conditions I will identify will, therefore, resemble somewhat the ultimate criteria of health cited by Bennis.

His concluding statement is that "...the argument is that systems work better if their parts are in good communication with each other, are committed, and are creative and flexible (p. 106)." The system called for is OD; the assumptions relate to Theory Y.

**Summary of Overviews of the Ten Benchmark Works**

Evidence from the discussion concerning the ten benchmark works in the OD sample strongly suggest that humanistic (Theory Y) values are highly consistent with the effective functioning of organizations built on the newer models of organizations such as 9,9 Grid, System 4, or open system theory. The empirical evidence that appears in the ten benchmarks shows an interface between the organizational and humanistic frontiers described above. It should be recognized that the values to which OD efforts hold are not absolute, but rather represent directions rather than final goals. OD is apparently in a period of transition and represents a movement away from older, less personally meaningful and organizationally relevant values and towards newer, humanistic values in the human experience in complex organizations.

Table 1 provides a summary of the organizational values based on the analysis of the OD sample of benchmark works.
### TABLE 1

**Summary of Organizational Value Orientations Mentioned Explicitly and/or Implicitly in Publications of OD Sample**

<table>
<thead>
<tr>
<th>Polar Positions of Management Theories and/or Practices</th>
<th>Benchmark in Rank Order by Author and Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scientific Management, Bureaucracy, Classical Management, etc.</td>
<td>&quot;Theory X&quot;</td>
</tr>
<tr>
<td>Emergent/Alternative Theories and/or Practices</td>
<td>&quot;Theory Y&quot;</td>
</tr>
</tbody>
</table>

1. **Lawrence & Lorsch (Organization and Environment)**
   - "X" (p. 161)
   - **Contingency Organization Theory** (p. 209) calls for an "X-Y" orientation depending on character of organization. (However, calls for "multivariate organization" approach which would consider Theory Y values IMPLICITLY).  

2. **Blake and Mouton (Managerial Grid)**
   - "X" (p. i)
   - **9,9 OD GRID** (pp. 142-143) "Y" values Explicitly.

3. **Blake, Shepard, and Mouton (Managing Intergroup Conflict in Industry)**
   - --
   - (Deals with Technology of organizational change with emphasis on Theory Y values.)

78
TABLE 1 (continued)

<table>
<thead>
<tr>
<th>Polar Positions of Management Theories and/or Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scientific Management, Bureaucracy, Classical Management, etc.</td>
</tr>
<tr>
<td><strong>Benchmarks</strong> in Rank Order by Author and Title</td>
</tr>
<tr>
<td>4. Schein and Bennis (Personal and Organizational Change Through Group Methods: the Laboratory Approach)</td>
</tr>
<tr>
<td>5. Beckhard (OD: Strategies and Models) (human engineering)</td>
</tr>
</tbody>
</table>

79
### TABLE 1 (continued)

<table>
<thead>
<tr>
<th>Polar Positions of Management Theories and/or Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scientific Management, Bureaucracy, Classical Management, etc.</strong></td>
</tr>
<tr>
<td><strong>Benchmarks in Rank Order by Author and Title</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>9. Likert (The Human Organization)</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
TABLE 1 (continued)

<table>
<thead>
<tr>
<th>Benchmarks in Rank Order by Author and Title</th>
<th>Scientific Management, Bureaucracy, Classical Management, etc.</th>
<th>Emergent/Alternative Theories and/or Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. Schein (Organizational Psychology)</td>
<td>&quot;Theory X&quot;</td>
<td>&quot;Theory Y&quot;</td>
</tr>
<tr>
<td></td>
<td>--</td>
<td>Successful Coping (Theories of Bennis) (Calls for an X-Y orientation depending on character of organization.)</td>
</tr>
</tbody>
</table>

Note: Paginations appear in parentheses.
In order to ascertain the omission or inclusion of organizational values involved, Table 1 provides a check of the above discussion to see whether or not they (Theory X or Y) were present (the Virginity principle). The conclusions of this part of the study were based upon this record and checklist.

Please note the following characteristics about Table 1. The table is comprised of three columns. The first column lists the ten benchmark works in rank order by author and title. Columns two and three represent the polar positions of management theories and/or practices presented in the ten benchmark works. The second column is labeled "Theory X," the third column "Theory Y." The "Theory X" column represents the notations mentioned in the various publications that treat the shortcomings of traditional management theories and/or practices. The column includes the paginations and selected terms of reference material that describes these shortcomings. The third column (Theory Y) lists the proposed emergent and/or alternative management theories and/or practices. Basic theories and OD models are listed including the paginations in the publications.

Table 1 and the preceding discussion reveal insights considering the nature of OD values. These insights are described in the following: An overriding theme throughout the discussion of organizational values has been the prevalence of traditional theories of management and
organization. They comprise the classic models of scientific management, bureaucracy, and administrative management which are usually termed machine theory (Katz and Kahn, 1966, p. 73).

Man is viewed as a machine, a mechanical device with given sets of specifications for accomplishing a task. Organizations are thus designed according to a blueprint to achieve a given purpose. The fundamental problems of an organization are controlled by formalization and legitimation processes by which role systems are elaborated and sanctioned.

These concepts are seen in their clearest form in military organizations and organizations engaged in the mass production of goods and commodities. The concepts of "machine theory" have, however, infiltrated organizational thinking in almost all types of organizations, including schools and other service organizations.

The theoretical base for man-machine concepts are entrenched in "economic" and "rational" man theories that assume that man is a rational animal concerned with maximizing his economic gains. Its organizational characteristics are control and stability with tasks viewed as routine. The goals or means are organizational ones, and only incidentally related to the goals of its organizational members. The image of its leaders (supervisors) are therefore predominately Theory X (McGregor).
Machine theory views the external environment mostly by ignoring it, thus creating the phenomenon of organizational closure. In other words, it requires the deliberate selection of those organizational ingredients that will make a determined contribution to the organizational goal. This requires management principles which are prescriptive in nature and are concerned with order and certainty in carrying out the activities of the organization. Man is viewed as an inert instrument performing the tasks assigned to him. Individuals are isolated entities, like machines, and can be treated in a standardized fashion. All resources, including people, must contribute to the masterplan in a predictable manner thus providing certainty in realizing organizational goals. Concepts such as planning, organizing, and controlling center on these purposes.

Man-machine theory has sometimes been right and sometimes wrong in its basic tenets (see studies in Lawrence and Lorsch, 1967). It particularly has been inadequate in dealing with the complexities of organizational variables and subsystems, however. For example, the unintended consequence of reliance upon rules and their enforcement includes a rigidity of behavior which reduces organizational effectiveness and illustrates the failure to recognize the true character of organizations as open systems in constant interaction with a dynamic environment.
Machine theory was supplemented by the human relations school that grew out of the Hawthorne studies of the 1930's. These studies provided a mass of empirical evidence that shows that participants adjust the environment to meet their individual and group needs. The human relations school is entrenched in social psychology and assumes the concept "social man," i.e. the view that people desire a social relationship with other people, and, as a part of this, an economic function for and value to the group.

The organizational characteristics of human relations have consequently a social orientation and direction. Participative management, group decision, and counseling, etc. are means for improving the performance of workers. The image of management leaders is Theory Y and supportive. A sense of personal worth and self-actualization of the worker is consigned to be cared for by a managerial elite who can provide salvation by manipulating the workers to accept the superior's view of reality.

Recognizing the oversimplified view of human nature held by traditional management, human relations sought to meet a variety of human needs, especially those involving the more emotional, nonrational, and unplanned aspects of organizational life. In contrast to scientific management it focused on the informal rather than the formal elements of organization, and instead of trying to persuade workers to mesh their efforts with the latter, it urged the
formation of social groups which stressed participation, communication, and leadership.

Both traditional management theory and human relations, however, failed to deal adequately with the elements of conflict and strain in modern organizations. It remained for newer theories of management, based on research findings and concerned with the moral imperatives which guide the actions of those who are managed or who manage to provide a fundamental change of emphasis about the human experience in organizations.

Ideas about managing human effort have changed primarily because of empirical studies showing overwhelming dysfunctional consequences in traditional applications of machine theory and human relations. The focus seems to point to the fact that other considerations are necessary to minimize or eliminate these dysfunctional effects. Such concepts as 9,9 Grid, System 4, and Theory Y provide a theme of values orientation of the basic "newer" philosophies for guiding the behavior of those who manage or are managed. These concepts are associated with what has been known as OD.

OD is an ideal—a vision that includes McGregor's and Likert's (and others) conceptions of all organizations as human enterprises in their most vital essence. It includes the conception of an organization as being composed of a dynamic complex of interacting subsystems of people,
structures, technologies, and tasks. It insists on getting human values and democratic ideals introduced and recognized into hierarchically organized systems. All in all OD provides a vision of a more democratic, more sensitive, and more humane organization.

The moral vision of OD was given new impetus by the manifestation of the generational struggle typical of the 1960's. The moral vision continues into the 1970's and insists upon human well-being as the central moral category. Each action dealing with the human experience must justify itself through the contribution it makes to this end. OD rejects the subordination of emotional, aesthetic, and sensory experience to reason and holds that the well-being of the human experience requires the cultivation of both intelligence and the sensibilities.

Such a moral vision is not simply a pie-in-the-sky state of affairs for the human experience. Various authorities in this study have cited the need for an approach to managing the human side of enterprise that extends itself beyond the parameters of traditional organization theory (Bennis, 1969, pp. 12-20; Lawrence and Lorsch, 1967, p. 161 and p. 209; Katz and Kahn, 1966, pp. 471-472; and McGregor, 1960).

Traditional organization theory is not a straw man contrived to emphasize the needs of OD. Its contributions are many and valuable. For instance, its emphasis on changing
individuals as a method for changing organizations is a healthy one. Katz and Kahn, however, identify the weakness in logic when they state:

In short, to approach institutional change solely in individual terms involves an impressive and discouraging series of assumptions—assumptions which are too often left implicit. They include at the very least: the assumption that the individual can be provided with new insight and knowledge; that these will produce some significant alteration in his motivational pattern; that these insights and motivations will be retained even when the individual leaves the protected situations in which they are learned and returns to his accustomed role in the organization; that he will be able to adapt his new knowledge to that real-life situation; that he will be able to persuade his co-workers to accept the changes in his behavior which he now desires; and that he will also be able to persuade them to make complementary changes in their own expectations and behavior. The weaknesses in this chain become apparent as soon as the many links are enumerated. The initial diagnosis may be wrong; that is, the inappropriate behavior may not result from lack of individual insight or any other psychological shortcoming. Even if the initial diagnosis is correct, however, the individual approach to organizational change characteristically disregards the long and difficult linkage just described. This disregard we have called the psychological fallacy (1966, pp. 391-392).

The Katz and Kahn argument that the individual approach usually will not work, and that other organizational variables such as structural and technological features need to be considered, is convincing. This does not mean that changing individual behavior is unimportant. It simply suggests that the individualistic strategy has serious weaknesses if the goal is to work some basic transformation in
the organization. The nature of complex organizations involves larger processes to carry out their goals and functions. Micro events such as individual training are insufficient to meet macro level system processes such as administration and coordination.

Another reason for the need of a new approach to managing organizations is that older traditional schemes almost entirely ignore external factors. The external world impinges on organizations at dozens of points, and change is often the result of interaction between the organization and its environment. Both friendly and hostile outside forces attempt to influence and, in some cases, make the critical decisions about internal organizational matters. Katz and Kahn point out this fact. They state: "The history of organizations (and of nations) is littered with the corpses of enterprises which failed to respond appropriately to the demands of the environment for change (p. 305)." They call attention to the need for an organizational form that features openness and which engages in energetic exchange. Thus a systemic organizational state accounts for the dynamic interfaces between the organization and its environment. No program of change or improvement can possibly be adequate if it ignores this critical feature.

Finally, what has been said is that the OD approach is a social invention characterized by openness and intimacy in the human experience. It is antithetical to authority-
bureaucratic-oriented schemes by subscribing to a value orientation that is humanistic and democratic. In a way, it is visionary since it is idealist. Theory Y, 9,9 Grid, and System 4 are examples. However, the rationale of OD involves interdisciplinary concepts and knowledge that are realistic because the rationale views an organization as a system that is open rather than fragmented and closed.

The cluster of beliefs, attitudes, and values of OD correlate highly with basic humanism which assumes that man is essentially good. The philosophic forerunners of the humanistic tradition may be traced to Greek philosophers who formulated such doctrines as, "Man is the measure of all Things," "Know thyself," and "The good individual is the good society."

Making an axiology of the humanistic dictum, that since man is the measure of all things, these assertions follow:

(a) Institutions should serve people, and not the other way around;
(b) Human dignity is supreme;
(c) Human conscience is the final authority in the affairs of people; and
(d) Democracy works best when -
   1. people share in decisions that affect them,
   2. dehumanization schemes can be slowed or stopped, and
3. the nonrational and emotional side of human nature is accounted for in decision making along with the rational dimension.

Such assertions as these create a common theory or ideology of values which identifies the humanistic orientation regarding people. Thus, such concepts as System 4, Grid OD, Theory Y, and participatory management, represented in the OD literature sample, appear to be nothing more than updated versions of the thoughts of the humanists of centuries past and those that have followed since.

The Classification and Scoring of OD Mechanisms

The purpose next was to assess the mechanisms of OD based on the same sample of publications used to "determine" the values of OD. An OD mechanism is defined as a technique or method for achieving an OD result and which is derived from the study of organizational behavior. They consist of a collection of techniques and methods aimed at developing new organizational learning and new ways of dealing and coping with organizational problems. In doing so, a general outline of the mechanisms of OD required a system of content classification as outlined in the previous chapter on methodology. Essentially, this system simply placed in a taxonomical arrangement the various OD mechanisms mentioned in the ten publications of the sample by using Leavitt's model of an organization (structure, technology, and people)
as entry points for changing organizations. But before revealing the results of this approach, the different approaches used by the writers of several of the sample publications will be briefly reviewed and compared at this time. The purpose is to provide a comparative perspective of various approaches to the system used in this study.

Various benchmark works considered different mechanisms to bring about organizational change. Katz and Kahn list seven:

1. Information
2. Individual Counseling and Therapy
3. Peer Group Influence
4. Sensitivity Training
5. Group Therapy
6. Survey Feedback

Beckhard (1969, pp. 27-42) lists four "interventions" (mechanisms) for organizational change:

1. **Team Development.** Groups acquire the ability to communicate; to solve problems; to conform to norms which restrict their effectiveness. Usually an action research model of intervention is used, i.e., the collection of data, feedback of information to the team, and action-planning from the feedback.

2. **Intergroup Relationships Between Sub-systems.** The purpose here is to correct dysfunctionalities resulting from
inappropriate competition and fighting between groups that should be collaborating. It is similar to conflict management which attempts to minimize wasted energies, dysfunctional decisions, lack of coordination, etc.

3. **Goal-Setting and Planning.** This strategy works on the notion "how we think we should be operating." Management by objective (MBO) is an example of this technique. Goals can be individually oriented, team centered, or organization wide.

4. **Education: Skills and Abilities for Individual Participants.** While individual development of skill and ability are not primary targets of OD, they are still important considerations. These include:

   a. Interpersonal Competence--includes communication skills, ability to manage conflict, and tolerance for ambiguity.

   b. Problem Solving Knowledge and Skills--includes learning problem-solving and decision-making.

   c. Skill in Goal Setting--includes target setting or management by objective.

   d. Skills in Planning--includes learning how to formulate a program of action.

   e. Understanding the Process of Change, and Changing--includes an understanding of barriers to change, how change comes about, etc.
f. Skills in System Diagnosis—concerned particularly with influence of "informal organizations," representing a variety of functions and levels of management, whose members meet regularly to examine the state of the system in order to up-grade it (1969, pp. 27-42).

Blake and Mouton (1967) argue for the integration of concern for production and concern for people. They have developed training programs which explicitly attempt to achieve organizational effectiveness through a management system that is both production and people centered.

Schein (1965, p. 99) proposes a six-fold adaptive-coping cycle. Schein and Bennis (1965, pp. 201-202) refer to what they term the distinction between "the Yogi and the Commissar, between those who turn inward for insight and nirvana and those who turn outward for social salvation."

Another type of classification is illustrated by Hornstein, et al. (1971). They suggest a six part classification for what is termed "social intervention" in change that is deliberately planned (of which OD is only a single class). They exclude mechanisms that are solely or primarily concerned with changing individuals. Their prime concern is with mechanisms concerned with changing organizational systems. Their classification system is briefly discussed to provide an illustration of a classification scheme.
1. **Changing the organization by changing various aspects of the individual.** The relationship between personality and behavior change is considered as a prime concern in the process of changing. T-groups, MRP (Multiple Role Playing) and sensitivity training are examples used in such technologies.

2. **Techno-structural Mechanisms.** Here the concern is with changing the formal structure to provide a greater congruence between technological and environmental demands and the organizational structure.

3. **Data-Based Mechanisms.** The objective is to use information to create an influential constituency which will seek to effect changes in a designated social system. Often goals are political rather than pragmatic aims.

4. **Organizational Development: Cultural Change as a Mechanism.** The authors define OD (p. 5) as "...the creation of a culture which supports the institutionalization and use of social technology to facilitate diagnosis and change of interpersonal, group, and intergroup behavior, especially those behaviors related to organizational decision-making, planning, and communication."

5. **Violence and Coercion as Mechanisms.** These mechanisms are grouped into four categories: (1) *intraindividual and personality variables* (biological, personality and socialization factors that lead to aggressive and violent behavior); (2) *social-structural variable* (economic and
political conditions that spark social violence); (3) cultural influences such as social class and nationality; and (4) socio-psychological variables such as power and social deviance.

6. Nonviolence and direct action as mechanisms. Two approaches are listed—indirect and direct. The former approach disconfirms the opposition's expectations by using non-violent techniques; the latter approach attempts to alter the opposition's power, and to alter his attitudes and/or behavior toward the interventionist and his group (Hornstein, et al., 1971, pp. 1-587).

The results of the approach used to classify the OD mechanisms in this study are presented next. It is hoped that the previous discussion will provide a background for the discussion that follows.

As the previous brief discussion indicates, much knowledge of how to change an organization towards an OD values orientation is contained in the OD sample of benchmark works. Table 2 shows these mechanisms classified into three categories that resemble Leavitt's model, i.e., structure, technology, and people. Special note should be given to the fact that almost all of the mechanisms are people-oriented.

Within this framework the system of classification provided a structure for categorizing the knowledge of how to develop an organization using OD mechanisms. The
### TABLE 2

Summary of Content Analysis of OD Mechanisms
Based on Ten Selected Benchmark Works and
Using Leavitt's Model as Categories
of Classification

Note: Pagination of source appears in parentheses and
definitions of various mechanisms are included
in the appendix.

<table>
<thead>
<tr>
<th>Publications in Rank Order</th>
<th>Structure Variable</th>
<th>Technology Variable</th>
<th>People Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Lawrence &amp; Lorsch</td>
<td></td>
<td></td>
<td>Education methods based on contingency theory (232) Leadership training (243)</td>
</tr>
<tr>
<td>2. Blake and Mouton</td>
<td></td>
<td>9,9 Grid OD (255-279)</td>
<td>Grid training Teamwork development Intergroup linking Setting org goals</td>
</tr>
<tr>
<td>3. Blake, Shephard, &amp; Mouton</td>
<td></td>
<td></td>
<td>Problem-Solving (86-101)</td>
</tr>
<tr>
<td>4. Schein and Bennis</td>
<td></td>
<td>Laboratory training (28-55)</td>
<td></td>
</tr>
<tr>
<td>Publications in Rank Order</td>
<td>Structure Variable</td>
<td>Technology Variable</td>
<td>People Variable</td>
</tr>
<tr>
<td>---------------------------</td>
<td>--------------------</td>
<td>---------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td></td>
<td>7. Katz &amp; Kahn</td>
<td>Feedback &amp; Group discussion Floyd Mann Method (416)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Peer group influence (395)</td>
<td>Sensitivity training (406)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Group therapy - Tavistock Method (409)</td>
<td>Feedback &amp; Group Discussion - Floyd Mann Method (416)</td>
<td></td>
</tr>
<tr>
<td>8. Greiner</td>
<td>Unilateral Action (120)</td>
<td>Job Design (125)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Group decision making (121)</td>
<td>Group problem solving (121)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>T-Groups (121)</td>
<td>Case Discussion (121)</td>
<td></td>
</tr>
<tr>
<td>9. Likert</td>
<td>Linking Pin or overlapping Group Techniques</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Participative Methods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Schein</td>
<td>Job Enlargement (32)</td>
<td>Job Design (26-27)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>T-Groups (76)</td>
<td>Human relations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(32)</td>
<td>Scalon Plan (54-59)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Leadership Labs (75-77)</td>
<td></td>
</tr>
</tbody>
</table>
taxonomical structure takes on operational significance when it is detailed in relationship to a particular OD program such as those described in the next part of this chapter.

1. The Structural Approach to Developing Organizations
   1.1 Job Enlargement
   1.2 Unilateral Action
      1.2.1 By Decree
      1.2.2 By Replacement
      1.2.3 By Structure
   1.3 Feedback and Group Discussion--Floyd Mann Method

2. The Technological Approach to Developing Organizations
   2.1 Job Design
   2.2 Job Simplification

3. The People Approach to Developing Organizations
   3.1 Searching
      3.1.1 Data Gathering
      3.1.2 Confrontation Meetings
   3.2 Learning
      3.2.1 Skill Training
         3.2.1.1 Laboratory Training
         3.2.1.2 Group Decision Making
         3.2.1.3 Conflict Resolution
         3.2.1.4 Team Building (Linking Pins)
         3.2.1.5 Problem Solving
         3.2.1.6 Interpersonal Competence
3.2.1.7 System Diagnosis
3.2.1.8 Planning
3.2.1.9 Processes of Change
3.2.1.10 Human Relations Training

3.2.2 Promoting Collaboration
3.2.2.1 Setting Organizational Goals
   (Management by Objectives)
3.2.2.2 Team Development & Linking
3.2.2.3 Case Discussion
3.2.2.4 Feedback & Group Discussion - Floyd Mann Method
3.2.2.5 Peer Group Influence

3.2.3 Power Equalization
3.2.3.1 Scanlon Plan
3.2.3.2 Leadership Lab
3.2.3.3 Intergroup Linking
3.2.3.4 Group Therapy - Tavistock Method

3.3 Implementing and Maintaining
3.3.1 Problem Facing
3.3.2 Problem Solving

The previous discussion has been directed towards the task of classifying the knowledge contained in the OD sample that is concerned with developing organizations with OD value orientations. The task was undertaken to identify and codify the knowledge in the benchmark works which has been termed OD mechanism. It should be stated that this development must not be construed as an ultimate structure
of the body of knowledge from which all technologies for OD are selected. The structure presented in the previous discussion is therefore perforce representative. Further work needs to be done to redefine and classify the content of OD mechanisms. Despite this, the structure presented above serves as an initial guide in the development of a conceptual framework of OD technologies that may be applied to the management and organization of industrial technology education programs, the immediate goal of this study. Also, there is no ultimate development of this body of knowledge, particularly at the finite level.

Classifying the OD Process

As mentioned in Chapter Three, the process of OD was defined as "the sequence of actions from beginning to end that leads towards a particular result," i.e., the progression of an OD effort (program). What then are the processes of OD?

The answer to this question (based on the 10 publications from the OD sample) involved only four models from the sample. They will be reviewed individually and comparatively with the other models. One example is Blake and Mouton's The Managerial Grid (1966), sometimes referred to as Grid OD. Blake and Mouton list four major concepts of change involved in their strategy. These are discovery, education, correction, and prevention. The discovery
concept involves the application of scientific methods to provide human control of nature. The education concept is based on the premise that knowledge and skill can be transmitted, acquired, and used to increase organizational effectiveness. The correction concept means using knowledge to eliminate conditions that are barriers to organizational effectiveness. The prevention concept suggests the use of knowledge and skill to anticipate and avoid dysfunctions so that correction is unnecessary.

The central concept in Grid OD is the managerial grid which is a graphic method of viewing various management styles. The vertical dimension of the grid represents concern for people, and the horizontal dimension of the grid represents concern for production. Essentially the Grid involves the individual in "problem solving" laboratory seminars that give strong attention simultaneously to both production and people by developing an ideal 9,9 management style. A 1,1 style shows minimum concern for production and people; a 9,1 style of supervision shows a production emphasis and minimum human consideration; 1,9 shows a reverse emphasis--maximum concern for working conditions and a minimum concern for production; a 5,5 style shows an adequate balance between production and people; and a 9,9 style shows a major concern for production and people. The joint authors suggest that to approach a 9,9 style goal, a long term effort should be made with Managerial and Laboratory -
Seminar training, team development, horizontal and vertical organizational relationships, organizational improvement goals, goal attainment, and stabilizations. Grid OD has a six phase change model. It is shown in Figure 4.

Another change strategy is outlined by Greiner (Benchmark No. 8 of OD sample). This model of change is based on data from a survey of eighteen studies of organizational change. From this survey three primary methods for initiating a change program are given: unilateral action, shared power, and delegated authority.

The "unilateral action" strategy is implemented through an emphasis on the authority of a man's position on the organization chart. Problems and their solutions are identified and specified by the "brass" at the top. Change, therefore, takes place by manipulation and authority based on decree, replacement, or structure.

The "sharing of power" technique for causing change shifts slightly away from the use of power and authority. It features interaction and sharing of power. Two approaches are used, namely, group decision making and group problem solving.

The "delegated authority" approach to change turns power and authority almost completely over to subordinates. One method used is by case discussion where an authority figure, usually the boss, uses his power only to guide a discussion of the problem but, at the same time, he does
Communication

PHASE 1: GRID SEMINAR

Organization members learn theories of behavior on a one-by-one basis.

PHASE 2: TEAMWORK DEVELOPMENT

Work teams apply Grid theories to increase their effectiveness.

PHASE 3: INTERGROUP DEVELOPMENT

Organized units that must cooperate to achieve results apply Grid theories to increase effectiveness with which they coordinate effort.

Planning

PHASE 4: DEVELOPING AN IDEAL STRATEGIC MODEL

Executive leaders specify in terms of business logic the intellectual foundations of the firm.

PHASE 5: PLANNING AND IMPLEMENTATION

For each definable business segment, planning teams use management science and technology to design and the line organization to change its operations by implementing the operational specifications for each business segment.

PHASE 6: SYSTEMATIC CRITIQUE

The total effort is evaluated in order to review and consolidate progress made and to plan next steps of development.

Figure 4

Process of Organizational Change - Blake and Mouton's Model
not impose his will on the group. The group is left to arrive at a solution to the problem on their own. Another method is T-group sessions. The primary emphasis in T-groups is on increasing an individual's self-awareness and sensitivity to group social processes.

Greiner studies these three major approaches in the 18 studies of organizational change. The survey findings showed intriguing similarities and differences between those studies reporting "successful" change patterns and those disclosing "failure" to achieve desired results. Successful change was defined as those changes which:

1) spread throughout the organization to include and affect most people,
2) produced positive changes in line and staff,
3) prompted people to behave effectively in solving problems and in relating to others, and
4) resulted in improved organization performance (p. 62).

Greiner's survey revealed distinct patterns in the evolution of change using the four categories just cited as a measure of success. He lists the following "success" characteristics:

1. The organization, and especially top management, is under considerable external and internal pressure for improvement long before an explicit organization change is contemplated. Performance
and/or morale are low. Top management seems to be groping for a solution to its problems.

2. A new man, known for his ability to introduce improvements, enters the organization, either as the official head of the organization or as a consultant who deals directly with the head of the organization.

3. An initial act of the new man is to encourage a reexamination of past practices and current problems within the organization.

4. The head of the organization and his immediate subordinates assume a direct and highly involved role in conducting this reexamination.

5. The new man, with top management support, engages several levels of the organization in collaborative, fact-finding, problem-solving discussions to identify and diagnose current organization problems.

6. The new man provides others with new ideas and methods for developing solutions to problems, again at many levels of the organization.

7. The solutions and decisions are developed, tested, and found creditable for solving problems on a small scale before an attempt is made to widen the scope of change to larger problems and the entire organization.
<table>
<thead>
<tr>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
<th>Phase 4</th>
<th>Phase 5</th>
<th>Phase 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stimulus on the Power Structure</td>
<td>Pressure on Top Management</td>
<td>Intervention at the Top</td>
<td>Diagnosis of Problem Areas</td>
<td>Invention of New Solutions</td>
<td>Experimentation with New Solutions</td>
</tr>
<tr>
<td>Reaction of the Power Structure</td>
<td>Arousal to Take Action</td>
<td>Reorientation to Internal Problems</td>
<td>Recognition of Specific Problems</td>
<td>Commitment to New Courses of Action</td>
<td>Search for Results</td>
</tr>
</tbody>
</table>

**Figure 5**

Process of Organizational Change - Greiner's Model
8. The change effort spreads with each success experience, and as management support grows, it is gradually absorbed permanently into the organization's way of life (p. 63).

Based on this evidence (cited above), Greiner divides his change process model into six distinct phases. They are shown in the abstract model in Figure 5. (For a detailed interpretation of the six phases see Greiner, pp. 56-62).

Edgar H. Schein and Warren G. Bennis (Benchmark No. 4) utilize a model very similar to the design for planned changed developed by Kurt Lewin. The three phases, unfreezing, changing, and refreezing are shown in Figure 6.

The first phase, unfreezing, is based on the idea that attitude change must begin with the unfreezing of present attitudes. Schein and Bennis believe that this phase of organizational change is best accomplished away from the organizational setting and through the use of T-groups, where the participants learn about themselves as the first change target.

The second phase, changing, readies the participant to pay attention to new categories of information about himself as a prelude to redefining his assumptions, beliefs, and constructs about himself and his relationships to others. This is acquired by drawing different items of information from different people in the T-group, by emotionally
Figure 6
Process of Organizational Change -
Schein and Bennis's Model
identifying himself with other participants, or other similar scanning devices for cueing the interpersonal environment.

Once the person begins to acquire new beliefs, perspectives, and points of view, his attitudes and values begin to change. This leads to the last stage, refreezing, which is supposedly a preferred change. Whether the change stays in a permanent state depends on a host of conditions such as returning from temporary T-group setting to a more stable, permanent organizational setting.

The point is that a process model for organizational change provides a simple construct for visualizing the process of OD.

In sum, the following overview has been developed from the study of the process models for organizational change:

1) Each model incorporates a series of specific training tasks and interventions (mechanisms) for initiating, developing, implementing, and assessing an OD program.

2) Each step or phase in the various models is overlapping and interacting (action research methods).

3) Each model provides a way of conceptualizing the objectives, procedures, and results of OD.

4) The various models illustrate that there is no one right way to develop an organization, but rather that the field is still emerging as a discipline with a technology yet to be fully developed.
Bennis states that, "Planned change can be viewed as a linking between theory and practice, between knowledge and action. It plays the role by converting variables from the basic disciplines into strategic instrumentation and programs" (1969, p. 340).

Presentation and Implications of Research Data

This final part of the chapter is to provide a more precise description of the content in terms meaningful for the problem at hand. Conclusions and interpretation of wider application than the content itself must be completed. This simply means that the data from the other parts of this chapter must be passed on to generalizations dealing with the ultimate purpose of this study. The remaining portion of this chapter deals in part with this task. The remainder is dealt with in the next chapter.

In the preceding discussion of this chapter, the values, mechanisms, and processes of OD from ten benchmark works in the field have been described. If the explanations are valid, then a number of generalizations and implications about the world of organizations and OD may be drawn from them.

Ideally, the assertions made in the previous pages are true, and if the reasoning is not grossly in error, they compel some comments that are at least interesting.
1. The Old Order

Organizational theorists interested in the management process have developed various terms to describe the indirect and subtle effects of management practice in complex organizations. Several of these terms attempt to describe the phenomena of traditional approaches (the old order) to accomplish organizational objectives. Theory X, scientific management, machine theory, human engineering, and System 1 are examples of descriptors found in this study used to describe traditional approaches to management. These theories are attributed to the writings of Fayol, Taylor, Weber, and others. These theories assume that man is an economic and logical being. Organizations are designed where (a) the subdivisions of activities into clearly differentiated functional units, (b) the formal structuring of the organization that differentiate positions in relations to status and function, and (c) operations, defined in terms of time and motion study, work flow, and production charts. This emphasis on a highly rationalized system prohibits the consideration of informal, subjective phenomena such as informal groups, leadership styles, climate, and situational factors, among others. Solutions to problems of organization are thus largely mechanistic. The analogy is to cogs in a machine, to man as a tool, to being valued as an instrument.
Mechanistic, traditional management is congruent with the primitive assumptions of people in a survival culture. Man is by nature competitive; and in this sense, theories about man are survival theories. Need theory in psychology used physiological survival needs as a model. Human satisfaction depends on consumption of scarce material resources. Social and psychic needs were understood in much the same way, to be satisfied at a pace. Similarly, the traditional theorists took the principles applying to production and exchange of creative necessities as their model of transactions. The central role of authority in traditional management can be understood as a means of curbing the destructive force of competition. Authority is the cement of the mechanistic culture. It is sustained by a framework of law which has access to coercive force.

The mechanistic form of management has been well suited to periods of growth when industrialization was the core survival issue and technological factors were not far advanced. But a culture along traditional lines afforded a limited and destructive view of people. This has resulted in a variety of ways; depersonalization, alienation, squareness. Traditional management is plagued by certain inefficiencies and strains which increase with increasing size, increasing change, increasing mentality of people, and increasing complexity. But all of these are slowly improving and changing.
2. Little by Little

The impact of traditional theories about people can be glimpsed in our societal institutions: the family, the church, and the schools. In the home, tradition compels a particular response to children's needs for control and discipline on one hand, and for inclusion of love and understanding on the other. Children are expected to respect authority, be obedient, repress their feelings, and excel their peers. In the church much is the same case as in the home. Religious instruction calls for denial of the need for power as the price for inclusion, emphasizing in its place docility and respect for authority. In school, children are paid with grades for pleasing the authority figure with competition towards others and with behavior that is obedient. Most of our population have grown up trained to scheduled discipline, willing to spend their lives and energies climbing the status and money ladder and excelling others.

But things have begun to change, little by little. As cited earlier, the Hawthorne studies were begun to validate Taylorism. However, the studies provided an impact upon traditional management theory that was antithetical to basic traditional doctrines. The human relations movement was born with its emphasis upon the social setting as it affects worker performance and satisfaction. Management soon included human relations techniques in the operation of
organizations but primarily in a manipulative sense. Still
management has been handicapped by theories, skills, and
values of a mechanistic, traditional culture. The boss is
still viewed as the boss regardless of what people may be
led to believe. There is no joining together and sharing
of responsibility for working, living, and learning. People
are still expected to know leading, following, and com-
peting.

3. Transcending the Mechanistic Mentality - The
Trip from X to Y
Emergent themes in the sample of benchmark works in
this study have spelled out a management philosophy that
calls for people to build relationships of trust, intimacy,
reciprocal influence, and openness. These themes are known
by such terms as Theory, participative management, System 4,
Grid OD, and systems theory. These emergent themes embrace
such theorists as Beckhard, Bennis, Blake and Mouton,
Likert, McGregor, and others. In these organizational
theories organizations are viewed as open systems with both
internal and external environments. Assumptions about peo-
ple are humanistic and democratic, as organizations in their
most vital essence. People learn how to confront and re-
solve conflicts among themselves and between groups on a
win-win or on a win-lose basis. They know how to help
others and how to accept help. They know how to fight and
show affection, to command, obey, and rebel, to work and to
play, to share and to be independent, to feel and to think, to be empathic and to keep distance, to be self-controlled and spontaneous, to continue to take the risks of new learning. Such theories transcended to the organizational setting provide a repertoire of organizational skills whereby people take charge of themselves, free to choose how to relate to others and their situation, as mature human beings. Such theories when applied to organizations resocialize institutions, providing conditions that disconfirm traditional management assumptions about people. The goals of the individual, the group, and the organization are basically integrated.

The development of organizations that feature these organizational characteristics involve the values, mechanisms, and processes of the concept of organization development.

4. The Concept of Organization Development

What then is OD? Beckhard's definition was cited earlier in this study (Chapter I) as having widest acceptance among OD practitioners. He defines OD (1969, p. 9) as "an effort planned organization wide, and managed from the top, to increase organization effectiveness and health through planned interventions in the organization's processes, using behavioral knowledge." (For a more complete explanation of this definition see Beckhard, 1969, pp. 9-13)
5. Mechanisms and Processes of OD

There are many approaches to OD. All of them involve (a) gathering data about the state of organizational operations, the state of interpersonal attitudes and behavior, or both; (b) feedback of data to the various parties involved, who then analyze it to see how the human attitude and behavior system is affecting solution of the organization's operating problems; and (c) team planning of new solutions to operating problems or new structures of duties, process procedures, policies, and rules for the organization's operations.

Beyond this general similarity, there are almost as many methods of OD as there are consultants engaging in this kind of work. This proliferation of methods is due to the newness of OD as well as to the fact that human behavior is a very rich and variable phenomenon.

The first two stages above can be conveniently classed as the unfreezing stage of planned organization change. At this stage participants look deeply at the present state of affairs in the organization—its operation, its successes and failures, and particularly the way human attitudes and relationships either foster or hinder the solving of operating problems. The term "unfreezing" is a Lewinian term used to denote the diagnosis phase of OD. This term implies what has already been said in this study: that people in traditional organizations have a way of becoming "frozen" into
out-of-date operating policies, customs, and job descriptions; or "frozen" into interpersonal attitudes of formality, ritual, competition, or distrust. This phenomena about the consequences of traditional organizations has been called "trained incapacity" and is described as "that state of affairs in which one's abilities function as inadequacies or blind spots" (Merton, 1968, p. 252).

The next stage, "changing," is the stage when the same participants, having faced up to and eliminated some of the structural and human blocks to effective problem-solving, proceed to new ways of operating within the organization. The intent of OD programs is, after the unfreezing phase, to evolve into an action planning stage. After all, productive organizations do not exist only to improve human understanding, sensitivity, and diagnostic skills. The ultimate goals of organization are as they have always been, to produce goods and services for society. The last phase, refreezing, simply involves institutionalizing the new operating modes of organization.

6. Sequencing Training and Experience

A central thesis of OD logic is that people learn by experience, rather than by listening to lectures or reading about theories or research principles based on other people's experience. These cognitive inputs are not left out altogether, but they usually come after an experience-type exercise, not before. For example, a focused exercise might
be devised which places members in temporary problem-solving systems. After some problem-solving sessions, and throughout the program, a series of lectures are scheduled on styles of supervision, exercises on giving and receiving help, a talk on organization theory, and/or an interpreted exercise showing what happens when an individual's upward influence is reduced.

There are exceptions to the principle of experience first, theory later. For example, Beckhard's (The Confrontation Meeting) confrontations (one of the OD sample benchmarks) include lectures on the problem of communication, the need for understanding, or the concept of shared responsibility for the future of the organization. This reverse in procedure is due to a desire to produce improvement in conditions quickly, and when there is a major or rapid change in the organization which may be causing confusion that negatively affects both productivity and morale.

Blake and Mouton (the Managerial Grid) on the other hand, in their 9,9 approach to OD, start phase one of the six phase Grid program with a mix of both cognitive and socioemotional exercises (see pp. 266-267). Following phase one, the remainder of the "grid" features a series of interlocking chain of conferences, committees, and task forces which are set up to deal with operating problems.

The essential characteristics of OD mechanisms are that they must be designed and implemented in response to
a diagnosed need. In Table 3 are listed alphabetically a glossary of major OD mechanisms found in the sample of the ten benchmark works of this study. In Table 4 the relevance of these mechanisms is matched to the various stages of organizational change. The table is only suggestive (and highly subjective) and is designed to show a number of potential uses of various mechanisms.

The structural, technological, task, and people variables have been described earlier (Leavitt's model). Each represents a potential area for change, which means that OD can begin with changes in any one of them. Any change effort must consider the nature of these variables in a systems point-of-view. Organizational functioning depends upon the degree to which these variables function together, since a change in one will probably affect the others. To be successful, OD technologies must be based on adequate organizational diagnosis.

Approaches to OD vary. Some tend to focus on any one particular variable or subsystem only. Some OD efforts focus on starting at the top of an organization while others may focus on the bottom. Regardless of the particular approach, OD technologies tend to follow the Lewinian sequence of unfreezing, changing, and refreezing.

On page 99 of this study, item three of the taxonomy of OD mechanisms deals with people approaches to developing organizations (based on the ten benchmark works).
Table 3

Glossary of Major OD Mechanisms

(Alphabetical Listing)

Case Discussion: A method developed to acquire general problem-solving skills by discussion of concrete situations to aid people in carrying individual and organizational change (Greiner, 1967, p. 122).

Confrontation Meeting: An action-oriented method of planned change where information about problems and attitudes is collected and fed back to the people who produced it. Process involves developing action plans for improvement of situation (Beckhard, 1967, p. 149).

Feedback and Group Discussion (Floyd Mann Method): A group discussion of survey results by what is called "organizational families," each family consisting of a supervisor and his immediate subordinates. Feedback is organization wide starting at the top of the hierarchy and working down through the hierarchy of organizational families in order (Katz and Kahn, 1966, p. 416).

Grid Training: A training approach that attempts to integrate individual, group, and organizational factors by changing of perceptions, cognitions, and attitudes, as well as the changing of the organizational structure. Behavioral and organizational changes are expected to emerge as a result of the insights gained during seminars and other activities (Blake and Mouton, 1966).

Group Therapy (Tavistock Method): Utilizes a fusion of individual therapy and group processes to create organizational change. Immediate concern is the improvement of people's understanding of their personal motives and their organizational relationships. The target for change is organizational restructuring by responsible organizational members themselves (Katz and Kahn, 1966, p. 409).
Laboratory Training: A human relations training approach that includes an extended series of more-or-less unstructured group sessions which gives members a chance to examine group dynamics in the "here-and-now." Such groups are designed to build sensitivity to others and to the way others react to oneself.

Leadership Lab.: Laboratory or T-Group training (Schein, 1965, pp. 75-77).

Linking Pin or Overlapping Group Technique: A theory that declares that every individual in an organization, except at the very highest and lowest levels, to be effective, must relate effectively in both directions of the organizational structure (Likert, 1967).

Job Design: The job is designed to fit the man on the assumption that work should be explicitly set up to take into account the potentialities and limitations of the worker.

Job Enlargement: An attempt to allocate and organize work primarily in terms of the skills and social needs of the workers. Enlarging the scope of the job increases (supposedly) motivation, sense of meaning and identification, and sense of autonomy.

Job Simplification: Breaking a job down into the minimum specialized unit of work and assigning it to one expert to do over and over again.

Peer Group Influence: Changing several people at the same status level in an organization to reenforce continuing behavioral changes.

Scanlon Plan: Group incentive plans which harness group forces toward organizational goals.
## Table 4

### Relevance of Mechanisms for Process of Change

<table>
<thead>
<tr>
<th>Process of Organizational Change</th>
<th>Stage 1 (Unfreezing)</th>
<th>Stage 2 (Changing)</th>
<th>Stage 3 (Refreezing)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case Discussion</td>
<td>xx</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Confrontation Meeting</td>
<td>xx</td>
<td>x</td>
<td>xx</td>
</tr>
<tr>
<td>Feedback &amp; Group Discussion</td>
<td>xx</td>
<td>xx</td>
<td>xx</td>
</tr>
<tr>
<td>Grid Training</td>
<td>xx</td>
<td>xx</td>
<td>xx</td>
</tr>
<tr>
<td>Group Therapy</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laboratory Training</td>
<td>xx</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership Labs</td>
<td>xx</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linking Pin Technique</td>
<td>xx</td>
<td>xx</td>
<td>xx</td>
</tr>
<tr>
<td>Job Design</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Job Enlargement</td>
<td></td>
<td></td>
<td>xx</td>
</tr>
<tr>
<td>Peer Group Influence</td>
<td>xx</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Scanlon Plan</td>
<td>xx</td>
<td></td>
<td>xx</td>
</tr>
</tbody>
</table>

x = relevant; xx = especially relevant

*aThis table is only suggestive and is designed to show a number of potential uses of various mechanisms. It is not an all inclusive list and should be considered in conjunction with the discussion of this study and glossary in Appendix B.*
Items 3.1, 3.2, and 3.3 are modifications of the Lewinian sequence. Inherent in this scheme is a similarity to Lewin's model for change. The terminology has been changed to describe the model that this writer presents in Figure 7. Observe the three components of searching, learning, and implementing and maintaining. In the searching phase, data-generation is the focus. The mechanisms of data gathering and the confrontation meeting are listed here. In the learning component, there are three broad sub-categories: skill training, promoting collaboration, and power equalization. Each of the categories is basically self explanatory. The first sub-category provides a repertoire of mechanisms that can provide people with basic skills for life in an OD form of organization. The second sub-category provides several mechanisms that are designed to promote a collaborative ability in an organizational sense. The third sub-category is concerned with mechanisms for equalizing the power and/or influence system in an organization. The last component of the model provides a focus of the organization as one of "problem facing" and "problem solving." The last component is similar to the concept of organizational self-renewal.

One overriding theme is derived from the model (and Lewinian theory), namely, that people are more likely to change if they participate in searching the reasons for, and means of, organizational change. Human beings are goal
A Searching, Learning, Implementing and Maintaining Model of OD
centered and will behave in ways consistent with achieving goals which meet their needs. The searching, learning, and implementing and maintaining model is designed to release the interpersonal energies that are often stifled in traditional-mechanistic bound organizational systems.

7. The OD Practitioner

One of the hallmarks of OD, and a characteristic which separates it from traditional management methods, is the assumption of the management talk by either an inside or outside OD specialist trained in the behavioral and organizational sciences. Some studies refer to this individual as a "change agent" or "interventionist." Whatever he is called, OD management cannot be realized without him.

What characteristics and functions describe this individual? There is a difference of opinion as to how to describe him and his function. The following description is one way to look at this specialty.

The OD practitioner is an individual with certain knowledge. He is well grounded in organization change technology, organization and management theory, and behavior science. Undoubtedly he will either be intuitively trained to OD-type work or be trained in such "schools" as the National Training Laboratory. The OD specialist is also a person with certain emotional characteristics—interests, attitudes, values, beliefs, and assumptions. His assumptions, attitudes, and interests relate to human behavior
in organizations, both as it is and as it ought to be. The value orientation of the OD specialist can be characterized as having a strong humanistic quality. He will have assertions declares that "man is the measure of all things."

However, the OD specialist can be described in terms of skill. For example, he will have experience in practical affairs and be able to translate practical events into terms of human interaction theory and group dynamics.

Much of what has been presented in the last part of this chapter will be expanded on in the next chapter. Hopefully, OD will be shown as a significant practical technique which departs from traditional management based on such features as formal authority and a division of labor. For several years such innovative management practices as participative management and structural job enlargement have been referred to as the main alternatives to traditional management. But until the advent of OD, nobody seemed to make them operational.
CHAPTER V

A DERIVED OPERATIONAL FRAMEWORK FOR OD
APPLICATION TO INDUSTRIAL ARTS
EDUCATION PROGRAMS

Change is always occurring. The question is: What type and in what direction? Planned change is possible and is generally considered a desirable goal. We know we can attain change. We also know there is a large gap between theory and practice. In the field of education, knowledge of both theory and practice is weak. We know that present in-service teacher education programs produce little change which affects the quality of instruction.

DeVore and McCrory, 1975

A paramount concern of industrial arts education is effective supervision because such supervision is the key that opens the way to securing the most efficient use of equipment and facilities and effective use of people and programs. The importance of this idea is not new. Such authorities as Lux, Ray, Warner, Silberman, and DeVore cited in this study have called attention to this matter.

How industrial arts personnel can be managed into productive work by effective OD management techniques and methods is treated in this chapter. The chapter is concerned
with "OD" industrial arts supervision and its development and use by the people responsible for "getting things done through people."

Specifically, the chapter will attempt to operationalize the organizational perspective of OD as analyzed in Chapter Four. The purpose is a simple one, to assist the industrial arts supervisor with a perspective for building a better institution along the lines of the social architect—that interdisciplinary set of professionals which is beginning to find out how to build, change, and renew organizations.

This chapter is designed to assist the industrial arts supervisor to learn about these skills and formulate plans of action. No attempt is made to prescribe a program which will assure that those who are concerned with the OD perspective will be proficient in the OD process. Rather the aim is to assist the supervisor in establishing a long-range plan of personal development in OD skills in order that he may be able to meet the responsibilities of professional leadership and management. It is not the purpose, however, to ignore or use as a straw man the traditions of management of industrial arts programs or be timid about the organizational challenges of the future. The intent is to make things better organizationally by encompassing ideas and concepts founded on the selected theoretical features of the changing field of OD that were presented earlier in
this study. From this perspective the chapter unfolds in the following way:

1. acquiring an OD perspective for effective supervision;
2. the goals of the supervisor who adopts an OD perspective;
3. a framework for OD supervisory development; and
4. putting it all together.

Acquiring an OD Perspective for Effective Supervision

Extremes of management techniques, such as dependence upon authority to drive people or total delegation of management responsibility, are not appropriate to the industrial arts supervisor who desires to "humanize" his organization and/or to be "efficient" in his mission. Maintaining a balanced relationship between the directing and influencing of people in an organization and the organizational mission, underscores the importance of effective supervision.

Management is defined in this study as "getting things done through people." Perhaps a simplified definition of OD management might be stated as the ability to get people to do those things necessary to accomplish the organization's mission because they intrinsically want to do them. This definition suggests a strong emphasis on human relations and group behavior; an emphasis which focuses on the conditions that cause individuals to act as a group in exerting
effective efforts toward achieving an assigned goal, what­
ever its nature. If the term "supervisor" is thought of as a synonym for "leader," a quote from The Way of Life Accord­
ing to Lao-Tzu taken from Bynner (1944) describes this fact. The quote claims:

A Leader is best
When people barely know that he exists,
Not so good when people obey and acclaim him,
Worst when they despise him.
"Fail to honor people,
They fail to honor you."
But of a good leader who talks little,
When his work is done, his aim fulfilled,
They will say, "We did this ourselves (p. 42)."

The results of effective OD supervision seem to imply
the following basic principles:

1. **Effective OD supervision helps provide for**
   superior employment of personnel and material.

   The greatest waste is human talent. Technical skill is worth little unless people can be persuaded to carry out the decisions essential to making that skill effective. Because of ineffective supervision, the great potential of people often is not realized. Thus, those who give industrial arts education its life and direction (supervisors) have a com­pelling challenge. The art of "getting things done through people" frequently means the difference between success and failure for a supervisor. A good supervisor must consider the human or psychological factors, as well as the logical and economical ones.
Making the best use of the resources available requires the highest type of managerial and organizational skill. These abilities do not exist by accident. They are achieved through hard work and a profound understanding of theories, principles, and methods of sound management and organizational practices, and they can be applied to any situation in which people deal with other people.

2. Effective OD supervision helps to insure efficient management of resources.

Another requisite for effective supervision is the ability to manage resources efficiently. All public organizations must get the greatest possible value out of their resources simply because the tax dollar must be split many ways for many purposes. Therefore, public education seldom has enough money, people, or equipment to do all it would like to do. The problem presents itself every year when the legislature makes appropriations or a local school levy is voted on. The job is clear-cut—people in education, including industrial arts supervisors, must make the best possible use of what they have in personnel, equipment, and facilities. When they demonstrate their ability to do this, then those individuals accountable for funding public education will be better able to do the difficult task of justifying further needs before the taxpaying public.
3. Effective OD supervision helps to inspire subordinates

In addition to competence in employing and managing human and material resources, the effective supervisor must have the ability to inspire subordinates to strive for their highest peak of performance. Such ability is essential to dynamic supervision. It can generate in people such a deep involvement in the tasks at hand that they will give the supervisor whole-hearted and loyal cooperation. People are the ones who must carry out programs of action and put the supervisor's management practices into effect, and the quality of the people's performance is directly related to the supervisor's ability to inspire them by communicating the importance of the job and their individual importance in the successful completion of that job. The effort exerted by people in their assignment will, in general, parallel their attitudes. What their attitudes will be is, in large measure, up to the supervisor. A dynamic, inspiring supervisor must have the ability to effectively work with the people in his group toward a concerted effort to successfully complete their assignment, whether the particular assignment is an exciting, vital one, or, as is more usual, a rather routine, prosaic one.
4. **Effective OD supervision has a human development purpose**

There is only so much that can be obtained from people, machines and time. In an atmosphere where there is ineffective supervision, the accomplishment of any endeavor will be characterized by waste, inefficiency and misuse of talents. Only in an environment animated by dynamic, competent supervision will these talents live and will mission success be assured. To achieve effective supervisory skill, therefore, is an important challenge facing every industrial arts supervisor, or potential supervisor.

Part of that challenge involves developing human resources. Human resources development is not a synonym for training or inservice education or management development. Traditional approaches designed to improve individuals are not adequate to help people to come together to respond creatively to the variety and complexity of problems in complex organizations. There is a definite need for newer ways to simplify and make efficient the complexities of contemporary organizational life.

A misconception in traditional management theory is the notion that organizations exist solely to get work done. "Organization" in this study was defined as "a group device for efficiently accomplishing through group means some stated purpose (Katz and Kahn, 1966, p. 16)." Work is only one purpose of organizations. But every organization is
also a social system that serves as an instrumentality for helping people meet human needs and achieve human objectives. In fact, this often is the primary purpose for which people take part in organizations—to meet their needs and achieve their objectives. And when an enterprise does not serve this purpose for them they tend to withdraw from it. So organizations also have a human development purpose.

Human resources development must be more comprehensive than traditional training methods. It must include the McGregorian concept of organizations as human enterprises in their most vital essence. This includes the conception of OD theorists of an organization as a dynamic complex of interacting subsystems of people, technology, and structure to accomplish a task.

5. Effective OD supervision is based on explicit human values

"Twinkle, twinkle, little star, whatever you say is what you are," or "I'm rubber, you're glue; whatever you say sticks to you," are little prescriptions that mirror personal values and perceptions. Like a mirror, traditional approaches of management are based on "Theory X" values. Management is often viewed as having a "mechanistic mentality (as described in Chapter IV)."

A distinguishable finite set of values are endemic to the nature of the "mechanistic mentality." These values are:
(a) Significant interpersonal factors are those which have to do with the organization's objective, i.e., "getting the job done."

(b) Cognitive rationality where feelings and emotions are to be played down. The boss sees cognitive, intellectual discussion as good, workable, and so on. Emotional and interpersonal discussions tend to be viewed as irrelevant and not workable. As a result, when emotions and interpersonal factors become blocks to organizational effectiveness, they are usually not dealt with. Emotional disagreements and personalities supposedly are kept out of the affairs of the organization.

(c) Human relationships are sanctioned through the chain of command and in the elaborate managerial controls that have been developed within organizations.

What is the impact of these values upon organizations? If individuals dedicate themselves to the values of "rationality" and "getting the job done," they will tend to be aware of and emphasize the rational, cognitive aspects of interactions that exist in the organization and to suppress the interpersonal and emotional aspects, especially those that appear irrelevant to achieving the task.

However, if the interpersonal and affective aspects of behavior become suppressed an organizational norm will tend to develop that coerces individuals to hide their feelings. Their interpersonal difficulties will either be suppressed
or disguised and brought up as rational, technical, or intellectual problems. If feelings are suppressed, the tendency will be for the individual not to permit himself or others to own their feelings. Statements such as, "Let's act like mature people and keep feelings out of this," or, "No, you should not feel like that," may be said by one individual to another.

A way to prevent individuals from violating the organizational values of rationality and from embarrassing one another is to block out ideas and values which could expose suppressed feelings. Such defensive reactions often lead to a barrenness of intellectual ideas as well as values. The result could be a closed circuit that could be an important cause of the loss of vitality in an organization.

If characteristics of behavior such as these prevail in an organization, members of the system will tend not to be aware of their interpersonal impact upon others. If individuals are in social systems in which they are unable to predict accurately their personal impact upon others, and the impact of others upon them, they may begin to feel confused. Since such concerns are not sanctioned in a rationally dominated system, the confusion tends to turn to frustration and feelings of failure regarding impersonal relations. The result is mistrust of self and others.

As mistrust grows, individuals may tend to play it safe. The desire to say the right thing should be
especially strong toward one's superior, toward one's peers with whom one is competing, and toward one's subordinates, who may bypass their superiors. As a result, conformity within an organization begins to develop. The subordinates will tend to look for cues from their superiors and will be influenced and guided by them. They may develop great skill in inducing the superior to define the problems, the range of alternatives, and so on.

Thus, interpersonal mistrust, conformity, and dependence will tend to decrease individual and group interpersonal competence. All these factors tend to influence the effectiveness of the decision-making process. For example, subordinates learn to play games, such as:

1) Give only good news, disallow bad news, or

2) Play down the impact of failure by emphasizing how close the objective "was almost" achieved.

Hopefully, it is clear from the material in this chapter that traditional systems of management are not the central theme in the framework which is advocated in this chapter. Rather it is OD. OD is seen as placing emphasis upon the development of interpersonal competence in the human experience in organizations. For example, the OD values discussed in this study are indicators of an emphasis that is quite different in value orientation to traditional approaches of management. McGregor (1960) uses "Theory Y" to describe the OD concept; Likert (1961) has developed
"System 4" and "participative management" as approaches to this system of management; and Blake and Mouton refer to it as "9,9 Grid" management.

To transcend the "mechanistic mentality," effective supervisors must be committed to and able to remove the warped organizational mirror of Theory X. It must be replaced with an organizational mirror that is not distorted; the image should be a Theory Y reflection!

6. **Effective OD supervision recognizes the importance of group "ownership" in the accomplishment of organizational goals**

Can you imagine a good athletic team or symphony orchestra that does not spend time learning and practicing together before performing their assigned roles? Can you imagine an organization such as our public schools performing in an organizational sense without some concept of teamwork and cooperation in its enterprise? Bringing together people with different values, expectations, needs, and goals, and providing some means by which they can reach some basic understanding of each other, is a basic challenge to our schools, including industrial arts' education.

Once the people have come together, it is important that they form an effective unit for accomplishing the objectives they may desire. Many ideas in education hold promise for accomplishing the objectives desired for quality education in our schools. However, attempts to translate
ideas from theory to definite practices, procedures, and technologies often meet with failure.

Too often a plan of action is adopted with much rhetoric, but the people who must carry out the program go on behaving in conventional ways. This is particularly true when a program requires organizational change, as when working roles are to be redefined and traditional ways of interaction transformed.

The problem does not seem to be a lack of good ideas or programs, but rather, the difficulty seems to be in the process of implementation. Often, outside experts are called into an organization to advise and help with fresh innovations. Then when they are no longer needed they leave and the implementation remains for those left behind. Quite frequently those who remain lack commitment because they feel the new way is not really their own (which of course it probably isn't).

Another reason improvement programs often lack fulfillment is because of the strategies assigned to accomplish them. As mentioned earlier in this dissertation, traditional approaches to improving organizations focus on changing individuals. These approaches assume that a change in individuals will result in a change in the organization. As a result of this assumption, school personnel are expected to participate in workshops, college courses, and in-service training programs. Evidence suggests that such approaches
often fall short of their intended objectives unless individual effort is integrated into a group and organizational effort.

The six "principles" listed above are by no means all inclusive. Of course, there are more than those listed. However, the list will suffice for this point in time simply because it (and the previous chapters of this study) gives the "flavor" of an OD perspective.

The field of possibilities in matters of organization, is much more extensive than people living and working by "machine theory" alone. Machine theory was a monumental discovery for harnessing the muscle power of the industrial revolution, but in today's world, it is a lifeless crutch that is no longer useful. Now organizations are required with unique characteristics that provide adaptive, problem-solving systems linked together by people who will be called on more to use their minds than at any other time in history. Jobs will become more rather than less involving; people are problem solving animals, and a task of an OD organization must guarantee a field agenda of problems.

OD is not a "new" utopianism; it is not necessarily a "happy" way of life in organizations. Coping with change, living in temporary work systems, and developing meaningful relationships all augur social strains and psychological tensions. The tasks of education and development, the goal of maturity, and the achievement of management will include
teaching how to work and live with ambiguity, to identify with the adaptive process, to make a virtue out of contingency, and to be self-directing. It is possible that if people in OD management can get their heads together in organizational revitalization, they may develop effective, delightful organizations—just possibly. The goals of the supervisor who adopts an OD perspective follow.

The Goals of the Supervisor Who Adopts an OD Perspective

There is a similarity in the goals and priorities that a supervisor with an OD perspective has and the traditional perspective of management. In many ways they are basically congruent. The OD supervisor is not introducing a new philosophy or new idea to education; he is not introducing high octane theory with low yield performance; he is not trying to take over a new "power" base. Rather he is trying to give a high performance with long talked about, little practiced ideals; with a power base where it should be in a democratic society—down at the lowest level possible.

The OD industrial arts education supervisor wants:

1. To create an open, problem-solving climate in the program.

2. To create an authority (leadership) system based on knowledge and technical competence.
3. To build trust among individuals and groups throughout the program.
4. To increase self-control and self-direction for teachers in the program.
5. To maximize collaborative efforts to better realize organization and group goals.
6. To make work challenging with responsibility, recognition, and satisfying interpersonal relationships.
7. To manage according to relevant objectives rather than according to "past practices" or according to objectives which do not make sense for one's area of responsibility.

He believes that ends based on "humanizing" the organization will provide a format of education that is:

1. Based on real-life situations where experience can be rich, revealing, authentic both for teachers and students.
2. Broadly based on values--intellectual, moral, and aesthetic--that become instrumental in the lives of individuals, groups, and organizations.

The components required for developing individuals to become OD supervisors follows.
A Framework for OD Supervisory Development

Skill in the ability to deliberately examine organizational patterns and processes is, more often than not, lacking in the makeup of the industrial arts supervisor. Organizational problems are treated as fires that arise and must be put out once they start. Prevention is not treated as a course of action. Those "operating modes" that have always been around are offered and used as ways to keep organizational matters on a steady course.

OD has been presented in this study as a recent social invention that offers a value orientation, technology, and process for improving the human experience in the "people" part of an organization. It has been represented as a system of management utilizing group processes and dynamics as methods for realizing organizational potential. OD is postulated on the beliefs that involvement and commitment of the democratic-humanistic ethos in the human experience--not the formal rules and laws of an organization--make an organization run more efficiently. What has been said in effect is that the single supervisor (leader) no longer can be sufficiently acquainted with all aspects of an operation to make wise decisions alone. It is a price that must be paid for life in complex organizations where everything depends on everything else. The only answer seems to be teamwork, with the supervisor the one who sets up the processes and procedures for group decision making.
In much of the OD literature showing how organizations go about the OD kind of management, it is stressed that some manager initially sees the need for this kind of approach and at some point becomes committed to it. He is the one, either as the change agent or with the help of an outside consultant, who schedules the various meetings, attends those meetings, and otherwise lends official authority and procedure to them being carried out.

The aspiring OD supervisor cannot expect to win his laurels (OD credentials) in a fortnight. Effort, study, and experience are the necessary requisites for successful "leadership." Every supervisor must plan a program that he can use to develop his abilities and make himself a better leader. Such a program must be hand-tailored, since no two individuals have the same educational background, experience, opportunities, or resources.

There is no single strategy for OD supervisory development. There is a universal prerequisite, however, and this is that the supervisor must honestly want to improve his organizational and management skills—that he acknowledge to himself that, good as he may be, he can always be better. This might be called an "educative attitude."

Someone once said: "The 'School of Experience' is the best school there is, but its graduates are too old to work." The "school of experience" does teach exceedingly slow. Moreover, its lessons are not always reliable or
This is where OD supervisory development programs come in—to provide a means of accelerating the "school of experience" and improving the validity and reliability of its curriculum. Let's see how this proposition could evolve.

In order to realize a reservoir of candidates for OD industrial arts supervisory positions—that is, persons who understand the goals, technologies, and processes of OD—a framework for OD supervisory development should be designed. The model proposed in this dissertation will build on the logic and evidence of benchmark #7 *The Social Psychology of Organizations* by Katz and Kahn.

They suggest that organizations are open systems because they are dependent upon their external environments (1966, p. 69). Katz and Kahn define "leadership" (which for purposes of this dissertation is a synonym for "supervisor") as the "...influential increment over and above mechanical compliance with the routine directives of the organization (p. 302)." Note that the definition distinguishes leadership from routine administration as featuring an "influential increment" beyond simple compliance with the rules and regulations of the organization. The value of non-organizationally decreed bases of influence is stressed, which depends upon the behavior of a supervisor rather than as a position in the hierarchy (legitimate authority).
Katz and Kahn suggest that there is a cognitive and affective development requirement for the various levels of management, i.e., the top, middle, and bottom levels in an organization. These requirements are briefly described in Table 5.

**Systemic perspective** according to Katz and Kahn is the cognitive requirement for the highest level of leadership (p. 313). There are two aspects of systemic perspective, the external and the internal. The external perspective involves an awareness of the organization's relationship to its environment—its impact on other institutions. The internal perspective involves an awareness of the interrelationships among organizational subsystems and the ability to integrate and harmonize organizational structure by changing it or creating a new structure.

**Charisma** is the affective requirement of top level leadership. It is "that magical aura with which people sometimes endow their leaders (p. 318)." It can be traced from the emotional needs of followers through strong acts of leadership which arouse special loyalty or enthusiasm for a leader.

**Subsystem perspective** is the mid-level cognitive requirement that synthesizes origination and administration, i.e., it makes workable organizational directives from the top and coordinates independent subsystems at the lower levels of organization (p. 320). A subsystem perspective


<table>
<thead>
<tr>
<th>Organizational Level</th>
<th>Leadership Type</th>
<th>Cognitive Requirements</th>
<th>Affective Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top</td>
<td>Origination (the elimination, change and elimination of structure)</td>
<td>Total Systemic Perspective</td>
<td>Charisma</td>
</tr>
<tr>
<td>Middle</td>
<td>Interpolation (supplementing and piecing out structure)</td>
<td>Subsystem Perspective</td>
<td>Integration of Primary and Secondary Relationships</td>
</tr>
<tr>
<td>Bottom</td>
<td>Administration (using structure as it already is)</td>
<td>Knowledge of organizational policies and technical knowledge of job</td>
<td>Concern with Equity and Fairness</td>
</tr>
</tbody>
</table>
requires the supervisor to face two ways in an organization, both from his superiors and his subordinates. This would be particularly true in the case of the industrial arts supervisor who would be in a middle management position (more about this later).

Integration of Primary and Secondary Relationships is stressed by Katz and Kahn as an affective requirement of mid-management (p. 323). Involved is the practice of good human relations to make congruent organizational and group objectives. It strives for direct face-to-face interaction rather than remote organizational relationships.

Technical knowledge of job and knowledge of organizational rules are cognitive requirements at the lowest level of leadership. This responsibility of the "first-line supervisor" is to "...see that his people have an adequate flow of materials, proper tools for doing the work, and appropriate directives on how to apply their energies (p. 328)."

Concern with equity and fairness is the affective requirement at the lowest level of leadership. This deals with "a clear and stable set of actions consistent with organizational protocol" by the administrator (p. 329), as well as the recognition that situations will arise that require "the rule of exception" when literal interpretations of the rules that may lead to ritualism are inappropriate and a contextual perspective is required.
Since the industrial arts supervisor is a mid-management position, a development model will now be proposed that is based on the Katz and Kahn logic discussed above. The model is shown in Figure 8. The model is directly affected by personal characteristics, that is, training, affiliations, political orientation, income, religion, age, sex, and concurrent characteristics, that is, contextual factors, the process or manner of weaving the components into an interrelated whole. The background characteristics of the OD supervisor would be similar to many of the attributes of the OD specialist described in the last section of Chapter 4. For example, his social philosophy would have a strong McGregorian quality. He would be a "humanist" interested in assumptions, attitudes, and interests related to "humanizing" organizations. He would have transcended the "mechanistic mentality" and be motivated towards improving the human side of enterprise.

The cognitive component of the model would include certain knowledge of organizational change technologies and processes, organizational and management theory, psychology and sociology, and related fields. The knowledge would deal with the design of organizations for attaining goals, their influence on people, with particular knowledge about the limitations of certain organizational designs. He would be a social architect capable of designing organizations to obtain the best fit between the task, the
Figure 8
Framework of Components for OD
Supervisory Development
individuals, and the structure as a best method of organizing whether it be utilizing System 4, the autonomous group, job enrichment, or whatever is thought the best method.

Specifically, the OD supervisor would need the following cognitive skills.

Cognitive Skill Area 1 - Knowledge about System Theory.

As mentioned earlier in this study, OD is entrenched in systems theory. The systems approach treats organizations as complex sets of mutually dependent and interacting variables taking inputs from their environments and processing them in certain ways to produce outputs. The more an organization's parts are interrelated and interdependent the better it is in its internal processing and in its external relatedness. In other words, an open system is a better "problem finding," "problem facing," and "problem solving" organization.

From the human point of view, an open system converts individual and group needs and expectations into outputs. Supposedly organizational outputs can be increased by improving the quality of the input. Likewise, organizational performance also can be improved by unleashing more of the potential inherent in the human resources. In other words, outputs will increase because the conversion process has been made more effective. This could be done, for example, by designing organizational processes which better fit the
organization's environment or by changing organizational processes so that human resources can be more fully unleashed or brought to bear on the task variable of the organization. The adjustment of organizational processes to reflect more accurately the needs of the environment and of the people in it can be one of the key objectives of an OD program.

Schools, unlike most kinds of organizations, have people both as input and output, as process and product. All the personal attributes and characteristics brought to the school makes it a rich and complex social setting. Under these circumstances schools perhaps more than other organizational forms require a fully organic, interdependent state. At least this state of affairs should be worked at even if it is never completely achieved.

Open-system theory is a conceptual language for understanding and describing complex organizational phenomena. The supervisor would use such language to describe and explain the behavior of his organization. He would need to know and understand the systemic processes, the problems of linkage and feedback, and other specifications of its make-up, particularly the unique properties of the human variable.
Cognitive Skill Area 2 - Knowledge about Beckhard's definition of OD because of its wide acceptance, and because it explains the process of OD.

If the supervisor has this knowledge, the definition will cause him to use the processes of identifying and diagnosing organizational problems, or determining objectives, and of carrying out and evaluating organizational activities which lead to increased performance and efficiency. The definition provides at least two categories of OD technologies which roughly correspond to the phrases of an OD effort—a period of diagnosis followed by a period of intervention which responds to the need as diagnosed. The OD process does not attempt to impose a preconceived package on the organization as a way of solving problems. Rather it helps create conditions whereby the organizational members can assume the responsibility and authority for solving the problems that directly affect them.

Cognitive Skill Area 3 - Knowledge about Models for Learning that use a Cognitive and Affective "Mix."

Traditional methods of learning, that of the classroom and seminar, stress theory and cognitive concepts before action. The affective realm of learning makes the point that socio-emotional behavior is another place to start. OD shows that effective learning results from a "mix" of learning settings, i.e., classroom work blended with here-and-now learning in the on-the-job situation.
The affective component of this model would include knowledge and skill that deals with the impact of interpersonal relationships on group functioning. Group functioning is often slow to develop from an authoritarian and directive origin. By shifting the point of view from the authoritarian question, "How do we motivate people?" to the less directive question, "How can we develop mature individuals and groups with interpersonal relationships?" we begin to see that, with mature interpersonal relationships, a group motivates itself. Katz and Kahn describe this affective requirement when they point out that the leader must regard:

...the value of the group to each individual as a potential asset rather than a bureaucratic irrelevancy or a threat to authority. As a result, he devotes a good deal of effort to creating a cohesive work group, a group in which each member finds the fact of membership rewarding. He permits, encourages, and may even model informal interaction (1966, p. 327).

Learning and knowing about the processes of groups involve insights for which there is almost no formal or professional training. Individuals may observe group behavior and arrive at different plans of action, or reach different conclusions from participation in groups.

The relationships between people involve more variables than can be handled with deductive precision. What is important may be multivalid, dynamic, and nonreproducible. The nonrational complexity of groups, i.e., personal feelings, intuition, and private, not shared knowledge, however,
does not imply irrationality. Still, groups are nearly universal in organizations, and managers have traditionally displayed little faith in teamwork feeling that things are done only by individuals, not by groups.

The supervisor should know how to manage and influence groups because there is ample evidence that they do have a major impact on their members, on other groups, and on the organization. He should develop groups within his organization which fulfill both the needs of the organization and the psychological needs of their members. He should minimize intergroup competition and conflict by creating maximum integration by creating conditions which balance between organizational goals and group and member needs.

Without interpersonal knowledge and skill, the psychological environment of the group becomes a helpless and manipulated one for people. It might be said that people become alienated from their work environment. People are unable to predict or control the feelings and behavior which stems from their group participation because they are unaware of their relationship to the work environment. Likewise, if management does not examine its impact and explore the implications of its impact on its employees, it too will become alienated. Often, autocrats in management make ego-centered pronouncements that are proclaimed to cure management's ills rather than to utilize their collective resources to find and test the causes of problems. Is
there something in management's attitudes that makes the individuals in the group more concerned with being "right" than solving problems? Sensitivity to group processes can unlock the resources of groups that usually are untapped in structural organizations.

**Putting It All Together**

Providing that the supervisor can meet the cognitive and affective requirements above, how can he proceed to realize the OD type of organization? There are no easy generalizations about the conditions under which groups will be effective, but with suitable training such as that mentioned in Chapter Four of this study, groups can be made more effective than they have been. Group-dynamics training in communication and interpersonal skills; problem finding, facing, and solving; conflict resolution; and other techniques are at the disposal of the supervisor who wants to use them.

Such OD mechanisms can help create conditions that are preventive in nature, that is, by establishing from the outset organizational conditions which stimulate OD values such as collaboration rather than competition; rather than attempting a priori the numerous traditional ways of other approaches such as the "seduce-them-and-drive-them" approach. The OD approach gets the carrot out in plain view by making the individual's objectives and the organization's
objective the same or as nearly the same as possible.

A possible model that the industrial arts supervisor could use is one built on the features presented in the last part of the previous chapter of this study. It features a searching, learning, implementing and maintaining approach. Transposed to the industrial arts setting, the model would feature the stages of planned change depicted in Figure 9. It involves the process of OD described in the previous chapter and will not be restated here.

One of the most important conditions necessary for the successful initiation of OD is a felt need for change among those who are the targets of influence. Greiner (1967) in his list of "success" characteristics of successful OD efforts points out the need for facilitators of change.

In an organization, of course, the locus of need helps determine the methods used to effect change. If the need for change is felt primarily by those at the middle of the authority structure, such as the position of the supervisor, but not by those below, change efforts can be exerted through the existing authority structure. Resistance usually takes the form of circumvention and token compliance.

Another important condition for successful OD programs is that someone must gain acceptance and possible support of individuals not seeking change and even those who feel
Figure 9

The Searching, Learning, Implementing and Maintaining Stages of Planned Change
threatened by it. The OD initiation, therefore, can come from a respected and, ideally, trusted source. The persons being influenced need confidence that the change can, in fact, be effected, and a large part of this confidence comes initially from their confidence in the power and judgment of the influencing agent. When people are unsure of their capacity to cope effectively with the situation, they identify with someone whom they perceive as having knowledge or power to successfully cope with the situation and who states where they need to change.

There is, of course, evidence to refute the claim that any change initiated by a high status figure will be successful (see Schein, 1965). The process of OD is more complex than that. But prestige and power on the part of the initiator (supervisor) seems to be a necessary, if not sufficient, condition for introducing organizational change and improvement in any system. Where the person planning an OD approach does not already possess prestige and power in the organization, it is his first task to build his reputation and power in the social system he intends to change (Loomis, 1959).

Another way to cope with the influence of an existing traditional management in an OD effort is for the change facilitator to introduce "participative management" into the organization. Such an effort can begin with a training program in which the objectives of the participants are the
general goals of understanding the concepts of System 4 and assessing their own present management styles. Other meetings then follow in which the objectives can be to explore ways to transfer the new concepts and personal learnings of the seminars to the operation of participants groups. The objective can become very concrete when the participants consciously try to use their new problem-solving methods in their own organizational setting. This method is a phase featured in Blake and Mouton's Grid OD.

Another salient feature of OD efforts is internalization of a motive for changing. The motivating force towards a particular change originates outside the individuals to be influenced. They may be searching for more adequate behavior, but someone else introduces the plan, the scheme, the interpretation, the suggestion, or the idea. Where the new behavior patterns are to become lasting, however, the individuals must internalize or come to "own" the rationale for the change.

Internalization occurs as an individual finds the ideas and the prescribed behavior intrinsically rewarding in helping him to cope with the solution to a problem or because it is congenial to his own value orientation.

One feature of some OD programs is that in the initial phase of the program a consultant is used to "set up" the program. Then after the "take-off" point had passed, the organization continues the program under its own initiative,
with its own resources, and without the help of the consultant. This becomes an apparent requirement when total organizational change is involved.

However, unlike the mechanisms required for "large" OD programs, where the interventionist was "an outsider," it appears equally feasible for less complex subsystems within a larger entity to be able to use "inside" change agents. This could be the case for managers of industrial arts programs.

Take the case of the traditional industrial arts supervisor. It would not be unreasonable to imagine that he has or could acquire the sophistication and expertise to do this very thing if he acquired an OD perspective. If he had these qualities and skills, what would be the major considerations and factors that he would have to deal with? Without totally summarizing the data presented in this study, the following points or conditions are the basic requirements:

1. The industrial arts supervisor would need an unusual relationship with his superiors in which they would "allow" him considerable latitude in "running his own show." This is what Beckhard points out as getting top management approval. Otherwise, he could operate without asking "permission" and be ready to answer for his actions.

2. Next, he would need to communicate (by actions and words) his OD system's philosophy and approach to all
teacher members.

3. He would follow with informal meetings with his staff to find out the problems and strengths of the various departments. This would equal the OD (unfreezing) searching phase.

4. Based on the results of steps 1, 2, and 3, OD objectives would be determined and supported by top management (or perhaps without it).

5. The industrial arts supervisor would then develop and implement (with the aid of sub-system members) an OD program that would include appropriate intervention technologies. The effects of steps 1, 2, 3 and 4 would result in a new pattern of interaction between the supervisor and the industrial arts teachers, among the teachers themselves, and hopefully to "lower" levels (the students). This would provide for the requirement of the implementing and maintenance (refreezing) phase. Among other things, a series of staff meetings would be scheduled with the OD tasks being carefully controlled so the group first understood the OD schema, the priorities for action programming, the groups or individuals responsible for the action, and identification of those who would be working within the action responsibility. The staff meetings would include OD theory, skill practice in problem-identification and solving, intergroup problem-solving, team training, and so on. Plans put into effect as changes would be agreed upon in staff meetings.
These would consist of changes in the organization's technical system (standard operating procedures manual, organizational chart, etc.) and procedures (organizational policies). During this time the supervisor could play an increasing role in gaining "higher authorities'" support of such changes.

6. In addition to short-run OD plans, long-range plans, based upon consensus of the group, would be formulated and carried out.

Kabakjian reminds us that "time may be running out on many institutions which have not remained sensitive and responsive to the times" (1972, p. 260). One need not be a fatalist to realize the need of being "sensitive and responsive to the times." Industrial arts education has provided abundant leadership in the past, particularly in regard to innovative instructional programs. However, it has neglected a real issue by developing and managing teacher personnel with methods that are questionable and outdated. It has an obligation to not only conduct programs of instruction with the latest methods and materials, but it must allow itself to be the product of excellence in an organizational sense. Without the successful use of quality teacher personnel, it will possibly come to a grinding halt in a very short time, or at best, enjoy only a mediocre existence.
 CHAPTER VI

CONCLUSIONS AND RECOMMENDATIONS

...organization development is one of the few educational programs I know of that has the potential to create an institution vital enough to cope with the unparalleled changes ahead.

Bennis

This chapter will be a summary of the methods and findings of the study. The intent is to present the findings of the research in an orderly fashion and to make recommendations for further research on the topic of OD application in industrial arts education.

OVERVIEW

The study started with an asserted need for programs to improve the quality of the performance of teachers and support personnel of industrial arts education. A review of related research on teacher improvement programs was conducted in order to discover the state-of-the-art. Research proved limited and it was concluded that the profession had
neglected this vital subject. While attention had been called to the need for improving industrial arts personnel, only traditional developmental approaches were offered as ways of accomplishing the task. Contrary to this, research in business and industry has pinpointed the weaknesses of training and development by traditional methods that emphasize improving only individuals. A more comprehensive method known as organization development (OD) was selected as the central concern of the study because it emphasizes developing organizations in a total systems approach rather than by just developing individuals.

The literature of OD for the period 1963-1975 (which is basically its lifespan) was reviewed and the researcher placed emphasis on synthesizing a sample of ten selected publications that were considered benchmark works. Content analysis was used as the methodology. Values, mechanisms, and processes were used as categories for classifying the data. The values were found to be humanistic and democratic; thus, they were antithetical to traditional "machine theory" and autocratic schemes of management. The mechanisms of OD were primarily concerned with the human variable with an emphasis on systems theory as a way of viewing an organization. The mechanisms were selected, in part, because they met the definition of the concept of OD as outlined by Beckhard, i.e., "...an effort planned organization wide, and managed from the top, to increase organization
effectiveness and health through planned interventions in the organization's processes, using behavioral-science knowledge" (1969, p. 9).

Looking at an organization as a human system, OD is directed toward developing the capabilities of an organization in such a manner that the organization can attain and sustain an optimum level of performance. OD is a problem-solving process, and it is undertaken on a collaborative basis by a combination of the members of an organization and the people who are charged with directing organizational affairs. The concluding concern of this study was the emphasis of supervisors of industrial arts education utilizing OD as a management system.

So much for the overview of the study: What are some conclusions from the study?

CONCLUSIONS

This study raises three categories of conclusions:
(1) moral, (2) technical, and (3) social.

The Moral Category

The moral category encompasses 3 conclusions;

1. Traditional management theories and practices are dehumanizing, and are used as a lifeless crutch in organizations. Industrial arts education programs are built on these schemes of management.
Traditional assumptions about the nature of people in organizations describe people as suspicious, distrustful, zealous, deceitful, self-centered, apathetic and immature, that is, they behave as described in Theory X. According to this view, people are intolerant of difference, unable to communicate in depth with fellow humans, and short-sighted. In short, people are inputs whose integrity and moral fibre must be seriously questioned. People are viewed as a constant without peculiar features and malleable without incident into the organizational structure; people are characterized as a machine--predictable, repairable, and replaceable.

Organizational patterns in most schools today follow traditional patterns of management. Designed in an era when the objective was to teach identical curricula to large numbers of students in an "efficient" manner, teachers work by themselves in isolated classrooms. Students all face the teacher in straight rows and work independently in tasks emphasizing competition. In the daily affairs of the school, people maintain "distance" from one another, act cold toward one another, and compete in win-lose relationships. Decisions are made only by those who possess authority; involvement and sharing of understandings by the people affected by decisions are disallowed. People ignore problems or state them in a form which ignores the real issues. People are afraid to express ideas, goals, and proposals because
they will be sharply criticized for being out-of-place. Unpleasant feelings remain hidden and the feelings of others are ignored—there is little checking to find out what they are.

2. **Industrial arts education needs a more effective means for realizing organizational excellence.**

Industrial arts supervisors approach their jobs with preconceived ideas about what they do and how they should do it. Many of the preconceptions, sometimes called "principles," have come to be accepted over such a long period of time that they are no longer examined or questioned.

Most supervisors do their best, but much of the time they fall short of effectively accomplishing their organizational objectives. The fact remains, however, that they, as well as the teachers and children that they manage, have to live with the results of their "unintended" mistakes. And these mistakes have a way of being passed on to future generations. The impact of this oversight is to some degree felt by all of us.

In searching for guidelines supervisors must test their ideas of management to determine whether they are still valid—and discard them if they are not. Important issues cannot be treated as separate, isolated topics. Out-moded schemes of management that have led to employee resistance and frustration, as well as to other problems, must be replaced with important breakthroughs in management science.
Serious efforts have been made to understand the real nature of organizations, and the way those within them behave. Supervisors must know how to effectively operate the human side of enterprise. Supervisors in public education have not provided teachers with a cohesive, basic framework into which can be placed each important facet of "living" in the educational establishment. Public education is too important for the "by-guess-and-by-golly" approach.

Inquiry must be focused upon people—how they behave in a variety of institutional settings, and why. Answers to the facts can help supervisors and teachers discharge their responsibilities towards those entrusted to their care and point the way to greater personal development for all concerned. Unless the nature of the human fabric is fully understood, utilized, and worked with, public education may travel blindly and may pay the price of failure. Like the standard plank of oak mentioned in Chapter One, public education will not be up to "standard" and "its reflection in the mirror" will be one of warpage. Industrial arts education is no exception!

3. **Traditional methods for developing organizations are also questionable, including industrial arts education.**

Katz and Kahn, among others, have spelled out the major error in dealing with organizational improvement, particularly in regards to human resources development (1966, pp. 390-391). Systemic properties of organizations are
disregarded by placing emphasis on the assumption that a changed individual will produce a corresponding organizational change. Katz and Kahn state that "The behavior of people in organizations is still the behavior of individuals, but it has a different set of determinants than behavior outside organizational roles (p. 391)."

Most things that are done in organizations probably come off of heartfelt intentions for human well-being. Any lacks in organizational effectiveness are, in large measure, the results of little or no training of managers in open systems applications.

Blaming organizational schemes such as traditional management approaches only impedes organizational improvement and progress. Organizational shortcomings should be viewed as opportunities for growth and not as the stimulus for beating at them with the hammer of guilt and remorse. An attempt or plan to rectify deficiencies that exist in an organization can often develop untapped human potentials, if multidisciplinary approaches are incorporated in the action plan.

The Technical Category

The technical category includes three conclusions:

1. Organization development is an emerging body of interdisciplinary concepts, tools, and techniques dealing with improving an organization's effectiveness and its
ability to cope with change. OD is essentially a systems approach to the total set of functional and interpersonal role relationships in organizations.

Treating people as machines often leads to unforeseen, unintended consequences. Various patterns and characteristics of behavior may result that are not compatible with organizational goals. Participants may tend to be interested only in maintaining their own positions in the status hierarchy. They may perform in specialized corners of the organization with little or no involvement in the wider world. Both the organization and the people need some way to improve performance.

As we have seen, OD management has been developed to cope with this type of dysfunctional characteristic in organizations and improve the human experience. In a previous chapter of this study the various mechanisms of OD were classified into a taxonomy using Leavitt's organizational variables as categories of classification. Also the processes of OD were viewed by studying several change models such as Blake and Mouton's and Greiner's. All were basically Lewinian in design, i.e., the three-step model advanced by Kurt Lewin (1951): unfreezing the system which is operating in a given pattern, moving to a new pattern, and refreezing into this new pattern. The emphasis in OD is initially on some form of organizational diagnosis (unfreezing) using such technologies as questionnaire feedback, focused
exercises and confrontation meetings, interviews, and cogni-
tive "lectures." This is followed by planning new solu-
tions to problems of organization (changing) which responds
to the need as diagnosed (refreezing). It does not attempt
to apply some preconceived solution to an organization as a
way of solving problems. Rather it seeks out conditions in
an organization whereby its members can assume the responsi-
bility and authority for solving the problems that affect
them directly. There is no "passing the buck" because "the
buck" stops where it was created in the first place, down in
the organizational levels where people relate and work with
one another.

An important feature of OD theory is the systems ap-
proach which treats organizations as complex sets of mu-
tually dependent and interacting variables (Leavitt, 1964).
In this framework the participants are one set of variables
which act on all other variables (i.e., technology, struc-
ture, etc.). In this study, the people variable was found
to be the entry point for most OD efforts (see pages 97-98
of this study).

The systems approach to management presents the oppor-
tunity to view an organization as a totality. The emphasis
is on the parts of the system, the nature of interaction
among the parts, the processes which link the parts, and the
goals of the system (Katz and Kahn, 1966, pp. 14-29). The
key parts are people, the formal structure of jobs, the
status and role patterns within groups, and the physical environment. Relating these parts are complex patterns of interactions which modify the behavior and role expectations of each. The basic parts are linked together by certain processes including structured roles, channels of communication, and decision-making. These processes provide the means for directing the parts towards the goals of the organization—growth, stability, and social interaction. These processes are also the concern for programs of OD and give a suggestion to the boundaries of the methods (interventions) ordinarily associated with OD efforts. Intervention implies an action which interferes with or reorients processes ordinarily occurring in the system. A teacher's intervention in a child's problem-solving serves to reorient his thinking; more importantly, it can aid the child to mobilize his own energies more effectively. Thus, the usual aim of an intervention is to start internal change processes going in the system at hand, rather than causing an immediate change.

2. Even an elementary approach to OD shows its utility to a supervisor.

An elementary approach to OD shows its utility to a supervisor. If nothing else, a systems approach to management, such as OD, serves as a check list forcing the supervisor to ask himself what he has neglected. For example, the problem of conflict in groups and the recognition by
those involved that some change is required would seem to be nothing beyond common sense. But how often is it ignored by the supervisor? The legitimate rules of the organization are supposed to regulate such matters, but usually they do not. The OD supervisor must improve his diagnostic skills so appropriate interventions can be applied to "shore up" anything he may have neglected in order to insure that the job is done more effectively.

3. To acquire OD "competencies" involves both cognitive and affective requirements.

Programs of industrial arts education commonly have been placed in the hands of individuals who make their home in the technical disciplines. Therefore, these people often have little inclination toward organizational perspectives that are not technical or mechanistic in nature. They have developed a trained incapacity, that narrow vision or blind spot characteristic of members of a technocracy that limits a range of action. Consequently, logic and evidence are disregarded, taboos and rituals prevail, problems are not solved, students are not served, and the status quo is maintained.

There is a mystique perpetuated by the organizational elders that insure that "things stay just as they always have," that there are "certain ways that must be followed," and that any newcomer must be institutionalized to existing policies and laws to avoid any threat to the "system." Each
organizational action, each solution devised for problem
solution, and/or each meeting of organizational members
tends to reinforce the folklore and support its application
when the occasion arises. The day-to-day affairs of organi­
zational life can, and do, blind the managing practioner to
the dynamics of the very organization he attempts to manage.
Just ask anyone who has managed or has been managed, at any
level and in any organizational setting. Industrial arts
education is no exception.

Blueprints adopted from organizational forms based on
formal rules and procedures are legion. The taboos and
mystiques generated from such designs are usually borrowed
unthinkingly by traditional organizational designers. Peo­
ple are supposed to join the "rat race" making approval for
many people conditional on the impossible. A well-organized
conceptualization and a workable strategy for organizational
action is usually lacking. An effective theory and tech­
nology for measuring the people-with-people interaction part
of work are simply disregarded.

Rarely do people in organizations make a deliberate
effort to examine their communication patterns--who talks
to whom about what and when; how their group processes--the
way people speak up in meetings to express concerns they may
have about the way the group or organization is working; or
their organizational procedures--how people are linked to­
gether to get work done. People in organizations have a
right to be curious about things that affect their well-being. Increasing numbers of people are desiring a new consciousness, a new blend of individualism and responsibility to others. There is an urgency for organizational remodeling—for institutionalizing involvement and relevancy.

In order for the effective supervisor to do "organizational remodeling," he must be competent in cognitive and affective skills as outlined in Chapter V.

The Social Category

OD as a system of management focuses primarily on the social system of an organization. The values of OD are humanistic and democratic as contrasted with traditional approaches of management which emphasize values of cognitive rationality and efficiency.

The process of OD institutionalizes various social technologies to regulate and change (if necessary) interpersonal, group, and organizational behaviors related to such organizational processes as problem-solving, decision-making, and communication. Therefore, theories of learning deal with both intelligence and the sensibilities. OD utilizes social technologies to create a permanent change in the social system. Group values, norms, and standards are seen as the primary regulations of individual behavior. Thus, they are the common targets for which OD mechanisms
are designed.

Other approaches to organizational improvement can include other systemic variables such as organizational structure and technology, but the people variable is the one most commonly focused on in OD programs.

Given the swiftness of technological change, it seems imperative that we understand and learn to manage the organizational change which must accompany it. Organizations, groups, and individuals which do not change rapidly enough must be shunted aside and, at best, placed under some disguised form of caretaking. Even if we can afford this economically, there is an increasing intolerance in our society, particularly within the young, with our failure to change organizations to keep pace with shifts in the environment. Some impatiently demand that we plan for and cope with change more effectively and humanely now. These demands cannot be completely dismissed as naive, for within almost all our organizations, including schools, are individuals who are aware of the environmental shifts and who have some vision of the required theoretical formulations. Managements' challenge is to translate that awareness to effective action. The industrial arts supervisor is no exception.
Recommendations

RECOMMENDATIONS

Recommendations which are based in this research follow. They are divided into seven categories.

Recommendation #1. For Further Research:

The OD system of management has been proposed as an excellent strategy in the management of programs of industrial arts whether in the small high school departmental setting or at higher levels. Because OD is a promising method for improving the human experience in organizations, it is therefore recommended that field-testing of actual use of OD be accomplished in industrial arts. This field testing could be done with or without elaborate effort. If funding and time were substantial, the field testing could be more comprehensive and in greater depth. Regardless, the conditions for successful OD efforts in industrial arts need to be carefully studied.

Recommendation #2. For Teacher Educators:

a. A role of the university industrial arts professor is preparing industrial arts supervisory personnel for management positions in public education. It is therefore recommended that teacher educators in industrial arts education further examine their role with industrial arts supervisors and develop a plan for conducting OD supervisory development programs.
b. Often OD programs require "outside" change agents to handle special educational problems. It is therefore recommended that a plan be developed whereby practicing industrial arts supervisors may readily call on university personnel to help solve local problems which can benefit from OD applications.

Recommendation #3. For State Supervisors for Industrial Arts:

State Supervisors for Industrial Arts should provide a unique leadership function by organizing and conducting state and district level meetings to help handle special industrial education problems. It is therefore recommended that teacher educators work through State Supervisors for Industrial Arts in conducting OD supervisory development programs and/or OD change efforts at the local level.

Recommendation #4. For Industrial Arts Associations:

a. Because local, state, and national organizations can influence their constituency it is recommended that they examine their relationships with behavioral science organizations and encourage OD education that would be of mutual benefit.

b. The American Industrial Arts Association's (1973) general guidelines for establishing and maintaining quality industrial arts programs were concerned, in part, with preparing a set of qualifications and responsibilities for state and local industrial arts supervisors (see Chapter I).
It is therefore recommended that the AIAA investigate the application of the OD system of management as a basic management skill for industrial arts supervisors.

Recommendation #5. For Local Industrial Arts Supervisors:

A controversial issue being discussed in public education today deals with the concept of "humanizing" education. The AIAA in 1974 dedicated its conference theme in Seattle, Washington to "Industrial Arts and A Humane Technology for the Future." One place to emphasize the importance of humanizing public education is in the management and organizational methods used to operate our schools. It is therefore recommended that supervisors of industrial arts utilize the management and development methods of OD to help succeed in this educational innovation.

Recommendation #6. For School Administrators:

Human talent is our greatest resource. Its conservation and development should be, therefore, a primary concern of everyone. When human talent is wasted, everyone is deprived; when it is rightly developed, everyone benefits. It is therefore recommended that school administrators support industrial arts supervisors who desire to apply OD methods in their industrial arts programs. This requirement is basic to Beckhard's (1969) definition of OD.

Recommendation #7. For Industrial Arts Teachers:

a. Lauda (1974) reminds industrial arts teachers that:
In spite of the changes occurring in our society, we continue to work with outmoded systems of thinking. We merely perpetuate schools which look like museums as they transmit inherited and verified facts. Learning has become a mechanical process rather than a human process. Basically we, like politicians, remain precedent-oriented. We cling to what worked in the past. We find it difficult to keep pace with the changing technology (technically or philosophically) (p. 115).

One of the difficulties in keeping pace with the changing technology in our schools is the application of outdated schemes of management and organization. It is therefore recommended that industrial arts teachers become familiar with the OD system of management and insist on its application by supervisors who manage industrial arts activities.

b. Industrial arts teachers are managers of a sort. They could be compared to first-line supervision. It is therefore recommended that they investigate the application of OD in their industrial arts classes. Perhaps student personnel practices in industrial arts classes could benefit from the teacher's OD perspective.


Fawelti, G. New Directions in Instructional Practices. Iowa City, Iowa: Iowa University, Center for Research in School Administration, 1968.


Holsti, O. R. Content Analysis For The Social Sciences and Humanities. Addison-Wesley, 1969.


Lawrence, P. R. The Changing of Organizations. Harvard University Business School, Division of Research, 1958.


Lawrence, P. R. and Lorsch, J. W. Organization and Environment -- Managing Differentiation and Integration. Division of Research, Graduate School of Business Administration, Harvard University, 1967.


Lewin, K. Field Theory In Social Science. Harper, 1951.


Litwin, G. H. and Stringer, Jr., R. A. Motivation and Organizational Climate. Division of Research, Graduate School of Business Administration, Harvard University, 1968.


Project UNITE — A Report to the People of Columbus by the Citizen Volunteers of Project UNITE, Columbus, 1972.


Table 6

Issues and Titles of Sources Appearing in a Series of Reputable OD Publications

<table>
<thead>
<tr>
<th>Publication Series</th>
<th>Books and Articles Contained in Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Addison-Wesley Series of 9 books on OD</td>
<td>1. Organization Development: Strategies and Models by Richard Beckhard</td>
</tr>
<tr>
<td></td>
<td>4. Designing Complex Organizations by Jay R. Galbraith</td>
</tr>
<tr>
<td></td>
<td>5. Developing Organizations: Diagnosis and Action by Paul R. Lawrence and Jay W. Lorsch</td>
</tr>
<tr>
<td></td>
<td>6. The Organization in a Changing Environment by Richard J. C. Roeber</td>
</tr>
<tr>
<td></td>
<td>8. Physical Settings and Organization Development by Fred I. Steele</td>
</tr>
<tr>
<td></td>
<td>9. Interpersonal Peacemaking: Confrontations and Third-Party Consultation by Richard E. Walton</td>
</tr>
<tr>
<td>Publication Series</td>
<td>Books and Articles Contained in Series</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>II. Social Interventions</strong></td>
<td>Part One</td>
</tr>
<tr>
<td>a book of 38 articles on OD</td>
<td>Individual Change Strategies of Social Intervention</td>
</tr>
<tr>
<td></td>
<td>1. T-Groups for Organizational Effectiveness by Chris Argyris</td>
</tr>
<tr>
<td></td>
<td>2. T-Group for a Work Team by Arthur H. Kuriloff and Stuart Atkins</td>
</tr>
<tr>
<td></td>
<td>3. Effectiveness of T-Group Experiences in Managerial Training and Development by John P. Campbell and Marvin D. Dunnette</td>
</tr>
<tr>
<td></td>
<td>5. From Learning for Leadership by A. K. Rice</td>
</tr>
<tr>
<td></td>
<td>6. Some Effects of Managerial Grid Seminar Training on Union and Management Attitudes Toward Supervision by Robert R. Blake and Jane Srygley Mouton</td>
</tr>
<tr>
<td></td>
<td>7. Developing Decision Makers by Charles H. Kepner and Benjamin B. Tregoe</td>
</tr>
<tr>
<td></td>
<td>8. MRP: A Technique for Training Large Groups of Supervisors and Its Potential Use in Social Research by Norman R. F. Maier and Lester F. Zerfoss</td>
</tr>
</tbody>
</table>
### Table 6 (continued)

<table>
<thead>
<tr>
<th>Publication Series</th>
<th>Books and Articles Contained in Series</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Part Two</strong></td>
<td></td>
</tr>
<tr>
<td>Techno-Structural Strategies of Social Intervention</td>
<td></td>
</tr>
<tr>
<td>9. Productivity and Social Organization in an Indian Weaving Shed: An Examination of Some Aspects of the Socio-Technical System of an Experimental Automatic Loom Shed by A. K. Rice</td>
<td></td>
</tr>
<tr>
<td>11. Making Incentives Work by Frances Torbert</td>
<td></td>
</tr>
<tr>
<td>12. The Confrontation Meeting by Richard Beckhard</td>
<td></td>
</tr>
<tr>
<td>13. Engineer the Job to Fit the Manager by Fred E. Fiedler</td>
<td></td>
</tr>
<tr>
<td>15. Physical Settings and Organizational Development by Fred I. Steele</td>
<td></td>
</tr>
<tr>
<td><strong>Part Three</strong></td>
<td></td>
</tr>
<tr>
<td>Data-Based Strategies of Social Intervention</td>
<td></td>
</tr>
<tr>
<td>16. The Use of Socio-Economic Research in Developing a Strategy of Change for Rural Communities: A Colombian Example by D. W. Adams and A. E. Havens</td>
<td></td>
</tr>
</tbody>
</table>
Table 6 (continued)

<table>
<thead>
<tr>
<th>Publication Series</th>
<th>Books and Articles Contained in Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>17. Helping a Group With Planned Change: A Case Study by Richard Beckhard</td>
<td></td>
</tr>
<tr>
<td>18. Studying and Creating Change: A Means to Understanding Social Organization by Floyd C. Mann</td>
<td></td>
</tr>
<tr>
<td>20. The Use of Survey Methods in a Citizens Campaign Against Discrimination by Claire Selltiz</td>
<td></td>
</tr>
<tr>
<td>21. Experimental Social Innovation Defined by George W. Fairweather</td>
<td></td>
</tr>
<tr>
<td><strong>Part Four</strong> Organization Development: Cultural Change as a Strategy of Social Intervention</td>
<td></td>
</tr>
<tr>
<td>22. Changing Organizations by Warren G. Bennis</td>
<td></td>
</tr>
<tr>
<td>23. Primary Target for Change: The Manager or the Organization? by W. Warner Burke and Warren M. Schmidt</td>
<td></td>
</tr>
<tr>
<td>24. Crucial Issues in Organizational Development by Paul C. Buchanan</td>
<td></td>
</tr>
<tr>
<td>Publication Series</td>
<td>Books and Articles Contained in Series</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>26. Short- and Long-Range Effects of a Team Development Effort by Richard Beckhard and Dale G. Lake</td>
</tr>
<tr>
<td>Part Five</td>
<td></td>
</tr>
<tr>
<td></td>
<td>27. The Study of Urban Violence: Some Implications of Laboratory Studies of Frustration and Aggression by Leonard Berkowitz</td>
</tr>
<tr>
<td></td>
<td>28. Rioting, Insurrection and Civil Disobedience by Ralph W. Conant</td>
</tr>
<tr>
<td></td>
<td>29. From The Politics of Confrontation by Irving Howe</td>
</tr>
<tr>
<td></td>
<td>30. Gherao as a Technique for Social Intervention by Nitish R. De</td>
</tr>
<tr>
<td></td>
<td>31 Revolution and Counterrevolution (But Not Necessarily About Columbia!) by Zbigniew Brzezinski</td>
</tr>
<tr>
<td></td>
<td>32. What the Revolution Is All About, or We Are All Vietcong and We Are Everywhere by Jerry Rubin</td>
</tr>
<tr>
<td>Publication Series</td>
<td>Books and Articles Contained in Series</td>
</tr>
<tr>
<td>--------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>34. Power, Alinsky, and Other Thoughts by George L. Peabody</td>
<td></td>
</tr>
<tr>
<td>Part Six Nonviolence and Direct Action as Strategies of Social Intervention</td>
<td></td>
</tr>
<tr>
<td>35. Mechanisms of Change in Nonviolent Action by Gene Sharp</td>
<td></td>
</tr>
<tr>
<td>36. Direct Action Tactics by Martin Oppenheimer and George Lakey</td>
<td></td>
</tr>
<tr>
<td>37. Conflicts: Productive and Destructive by Morton Deutsch</td>
<td></td>
</tr>
<tr>
<td>38. Freedom Rides: A Social Movement as an Aspect of Social Change by Victoria M. Olds</td>
<td></td>
</tr>
<tr>
<td>1. Organizational Development: A Review and Some Proposals by Robert L. Kahn</td>
<td></td>
</tr>
<tr>
<td>2. Flexi-time and Some of Its Consequences by Robert T. Golembiewski</td>
<td></td>
</tr>
<tr>
<td>3. Interorganizational Information-Sharing: A Success That Failed by L. Dave Brown</td>
<td></td>
</tr>
<tr>
<td>4. The Shadow Consultant by Marjan Schroder</td>
<td></td>
</tr>
<tr>
<td>Publication Series</td>
<td>Books and Articles Contained in Series</td>
</tr>
<tr>
<td>--------------------</td>
<td>---------------------------------------</td>
</tr>
<tr>
<td>IV. Social Technology</td>
<td>a composite of 20 works on OD methodology</td>
</tr>
<tr>
<td>5. The Failure of Current Applied Behavioral Science: A Marxian Perspective by Walter R. Nord</td>
<td></td>
</tr>
<tr>
<td>6. Commentary on the Issue by Marvin R. Weisbord</td>
<td></td>
</tr>
</tbody>
</table>

**Section I Overview**

1. What, Not Again! Manage People Better? by Marvin R. Weisbord


4. Successful Entry as a Key to Successful Organization Development in Big City School Systems by C. Brooklyn Derr

**Section II Team Building**

5. Team Building—One Approach to Organization Development by William J. Crockett

6. The Impact of Organizational Training Laboratories upon the Effectiveness and Interaction of Ongoing Work Groups by Frank Friedlander
<table>
<thead>
<tr>
<th>Publication Series</th>
<th>Books and Articles Contained in Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Role Negotiation: A Tough Minded Approach to Team Development by Roger Harrison</td>
<td></td>
</tr>
<tr>
<td>Section III Managing Conflict</td>
<td></td>
</tr>
<tr>
<td>8. The Union-Management Intergroup Laboratory: Strategy for Resolving Intergroup Conflict by Robert R. Blake, Jane Srygley Mouton, and Richard L. Sloma</td>
<td></td>
</tr>
<tr>
<td>10. Third Party Roles in Interdepartmental Conflict by Richard E. Walton</td>
<td></td>
</tr>
<tr>
<td>Section IV Techno-Structural Intervention</td>
<td></td>
</tr>
<tr>
<td>11. Studies in Supervisory Job Design by Louis E. Davis and Ernst S. Valfer</td>
<td></td>
</tr>
<tr>
<td>12. Job Enrichment by H. Roy Kaplan, Curt Tausky, and Bhopinder S. Bolaria</td>
<td></td>
</tr>
<tr>
<td>13. Properties of Organization Structure in Relation to Job Attitudes and Job Behavior by Lyman W. Porter and Edeard E. Lawler, III</td>
<td></td>
</tr>
<tr>
<td>Section V Data Feedback</td>
<td></td>
</tr>
<tr>
<td>Publication Series</td>
<td>Books and Articles Contained in Series</td>
</tr>
<tr>
<td>-------------------</td>
<td>---------------------------------------</td>
</tr>
<tr>
<td>14. Understanding the Impact of Survey Feedback by Clayton P. Alderfer and Ray Ferriss</td>
<td></td>
</tr>
<tr>
<td>15. Dealing with Dysfunctional Organization Myths by Leland P. Bradford and Jerry B. Harvey</td>
<td></td>
</tr>
<tr>
<td>16. An Action-Research Approach to Organizational Change by R. Stephen Jenks</td>
<td></td>
</tr>
<tr>
<td>Section VI Training</td>
<td></td>
</tr>
<tr>
<td>17. The Process of Organizational Renewal--One Company's Experiences by Seymour Levy</td>
<td></td>
</tr>
<tr>
<td>18. Improving Organizational Problem Solving in a School Faculty by Richard A. Schmuck, Philip J. Runkel, and Daniel Langmeyer</td>
<td></td>
</tr>
<tr>
<td>Section VII Epilogue</td>
<td></td>
</tr>
<tr>
<td>20. Durability of Organizational Change by Stanley E. Seashore and David G. Bowers</td>
<td></td>
</tr>
</tbody>
</table>
# APPENDIX "B"

Table 7

Frequency of Occurrences of Publications Appearing in a Series of Selected OD Publications 1963-1975

<table>
<thead>
<tr>
<th>Publication Series</th>
<th>Total Citations Appearing in Publication</th>
<th>Citations Appearing 1963-75</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Addison-Wesley Series of 9 books on OD</td>
<td>315</td>
<td>195</td>
</tr>
<tr>
<td>2. Social Interventions a book of 38 articles on OD</td>
<td>641</td>
<td>221</td>
</tr>
<tr>
<td>4. Social Technology a composite of 21 works on OD methodology</td>
<td>353</td>
<td>99</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1453</strong></td>
<td><strong>633</strong></td>
</tr>
</tbody>
</table>
APPENDIX "C"

Table 8
Primary Sample of Benchmark
Works in Rank Order

<table>
<thead>
<tr>
<th>Publication</th>
<th>No. of Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 1 - Organization and Environment - Managing Differentiation and Integration by Lawrence and Lorsch</td>
<td>21</td>
</tr>
<tr>
<td>No. 2 - The Managerial Grid by Blake and Mouton</td>
<td>11</td>
</tr>
<tr>
<td>No. 3 - Managing Intergroup Conflict in Industry by Blake, Shepard, and Mouton</td>
<td>10</td>
</tr>
<tr>
<td>No. 4 - Personal and Organizational Change Through Group Methods; the Laboratory Approach by Schein and Bennis</td>
<td>10</td>
</tr>
<tr>
<td>No. 5 - Organization Development - Strategies and Models by Beckhard</td>
<td>9</td>
</tr>
<tr>
<td>No. 6 - &quot;The Confrontation Meeting&quot; by Beckhard</td>
<td>9</td>
</tr>
<tr>
<td>No. 7 - The Social Psychology of Organizations by Katz and Kahn</td>
<td>9</td>
</tr>
<tr>
<td>No. 8 - &quot;Patterns of Organizational Change&quot; by Greiner</td>
<td>9</td>
</tr>
<tr>
<td>No. 9 - The Human Organization by Likert</td>
<td>8</td>
</tr>
<tr>
<td>No. 10 - Organizational Psychology by Schein</td>
<td>8</td>
</tr>
</tbody>
</table>