Western Michigan University
ScholarWorks at WMU

Dissertations

Graduate College

8-1982

The Relationship between Organizational Structure and Support for Employee Communication Skill Improvement

Roberta M. Supnick
Western Michigan University

Follow this and additional works at: <https://scholarworks.wmich.edu/dissertations>

Part of the Educational Administration and Supervision Commons

Recommended Citation

Supnick, Roberta M., "The Relationship between Organizational Structure and Support for Employee Communication Skill Improvement" (1982). *Dissertations*. 2538.

<https://scholarworks.wmich.edu/dissertations/2538>

This Dissertation-Open Access is brought to you for free and open access by the Graduate College at ScholarWorks at WMU. It has been accepted for inclusion in Dissertations by an authorized administrator of ScholarWorks at WMU. For more information, please contact wmu-scholarworks@wmich.edu.

THE RELATIONSHIP BETWEEN ORGANIZATIONAL
STRUCTURE AND SUPPORT FOR EMPLOYEE
COMMUNICATION SKILL IMPROVEMENT

by

Roberta M. Supnick

A Dissertation
Submitted to the
Faculty of the Graduate College
in partial fulfillment of the
requirements for the
Degree of Doctor of Education
Department of Educational Leadership

Western Michigan University
Kalamazoo, Michigan
August 1982

THE RELATIONSHIP BETWEEN ORGANIZATIONAL
STRUCTURE AND SUPPORT FOR EMPLOYEE
COMMUNICATION SKILL IMPROVEMENT

Roberta M. Supnick, Ed. D.

Western Michigan University, 1982

In order to examine the relationship, if any, between an organization's structure and the propensity of that organization to support communication training for its employees, 16 small manufacturing firms located in southwestern Michigan were selected for study. Firms were determined to exhibit organic, mechanistic or mixed structures based on managers' perceptions of centralization, formalization, impersonalization and task specialization within the company. Each firm was also judged to exist in either an uncertain or stable environment. Support for communication training in each company was assessed from personnel directors' responses to questions concerning programs offered, employees involved, frequency of offerings and percentage of training budget devoted to communication skill improvement.

A significant correlation in the expected direction was obtained between the variables "structure" and "support of training." Organic firms, characterized by decentralized decision making processes, informal communication rules and procedures, high regard for individuals and low task specialization, tended to strongly support communication training for employees. Multiple regression analysis indicated that "structure" was a significant predictor of "support for training" at the .01 level. Environment was not a factor in predicting company support for training nor was it shown to be associated with structural

type. Because organic structures tended to show strong support for programs which upgrade employee communication skills, the investigator concluded that the perceived importance of communication training was more evident in organic firms than in mechanistic firms.

INFORMATION TO USERS

This reproduction was made from a copy of a document sent to us for microfilming. While the most advanced technology has been used to photograph and reproduce this document, the quality of the reproduction is heavily dependent upon the quality of the material submitted.

The following explanation of techniques is provided to help clarify markings or notations 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 through an image and duplicating adjacent pages to assure complete continuity.
2. When an image on the film is obliterated with a round black mark, it is an indication of either blurred copy because of movement during exposure, duplicate copy, or copyrighted materials that should not have been filmed. For blurred pages, a good image of the page can be found in the adjacent frame. If copyrighted materials were deleted, a target note will appear listing the pages in the adjacent frame.
3. When a map, drawing or chart, etc., is part of the material being photographed, a definite method of "sectioning" the material has been followed. It is customary to begin filming at the upper left hand corner of a large sheet and to continue from left to right in equal sections with small overlaps. If necessary, sectioning is continued again—beginning below the first row and continuing on until complete.
4. For illustrations that cannot be satisfactorily reproduced by xerographic means, photographic prints can be purchased at additional cost and inserted into your xerographic copy. These prints are available upon request from the Dissertations Customer Services Department.
5. Some pages in any document may have indistinct print. In all cases the best available copy has been filmed.

**University
Microfilms
International**

300 N. Zeeb Road
Ann Arbor, MI 48106

8225419

Supnick, Roberta Marie

THE RELATIONSHIP BETWEEN ORGANIZATIONAL STRUCTURE AND
SUPPORT FOR EMPLOYEE COMMUNICATION SKILL IMPROVEMENT

Western Michigan University

Ed.D. 1982

University
Microfilms
International

300 N. Zeeb Road, Ann Arbor, MI 48106

PLEASE NOTE:

In all cases this material has been filmed in the best possible way from the available copy. Problems encountered with this document have been identified here with a check mark ✓.

1. Glossy photographs or pages _____
2. Colored illustrations, paper or print _____
3. Photographs with dark background _____
4. Illustrations are poor copy _____
5. Pages with black marks, not original copy _____
6. Print shows through as there is text on both sides of page _____
7. Indistinct, broken or small print on several pages ✓
8. Print exceeds margin requirements _____
9. Tightly bound copy with print lost in spine _____
10. Computer printout pages with indistinct print _____
11. Page(s) _____ lacking when material received, and not available from school or author.
12. Page(s) _____ seem to be missing in numbering only as text follows.
13. Two pages numbered _____. Text follows.
14. Curling and wrinkled pages _____
15. Other _____

University
Microfilms
International

ACKNOWLEDGEMENTS

It is with sincere appreciation that I acknowledge the support, advice and encouragement provided by individuals who contributed to the execution of this study: my advisor Dr. Harold Boles, the "teacher's teacher," whose commitment to excellence, discipline and precision proved invaluable; committee members Dr. John Rizzo and Dr. Charles Warfield, whose abilities to elucidate important study concerns were crucial; and Dr. Roger Wallace, whose insight concerning Michigan industrial firms made the study possible. Finally, my husband, Dr. Lonnie Supnick, and children, Christopher and Thomas, have my gratitude for their enduring patience and willingness to withstand the pressures typically sustained by families of aspiring doctoral candidates.

Roberta M. Supnick

TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS	ii
LIST OF TABLES	v
LIST OF FIGURES	vii
Chapter	
I. THE PROBLEM AND ITS BACKGROUND	1
Statement of the Problem	1
Rationale for the Study	2
Purpose of the Study	5
Limitations of the Study	6
Significance of the Study	6
Organization of the Study	7
II. REVIEW OF LITERATURE	9
Communication Training	9
Organizational Structure and Environment	12
Summary	17
III. DESIGN AND METHODOLOGY	20
Hypotheses	20
Population and Sample	21
Instrumentation	22
Data Collection	27
Methods of Analysis	29
IV. RESULTS OF THE STUDY	32
The Sample	32

TABLE OF CONTENTS, con't.	Page
Support for Communication Training Programs	33
Structure	35
Structural Classification of Organizations	53
Environmental Uncertainty	57
Testing of the Hypotheses	57
Summary	66
V. DISCUSSION	70
Summary of the Study	70
Conclusions	70
Recommendations and Suggestions for Further Research	76
APPENDIX A - Manufacturing Firms Participating in Study . .	79
APPENDIX B - Transmittal Letter Accompanying Survey to Personnel Directors	81
APPENDIX C - Survey Form to Personnel Directors	83
APPENDIX D - Transmittal Letter Accompanying Survey to Managers	86
APPENDIX E - Survey Form to Managers	88
APPENDIX F - Enclosure Accompanying Surveys to Managers . .	92
APPENDIX G - Follow-up Notes Sent to All Participants . . .	94
APPENDIX H - Correlation Matrix for All Structure Items . .	96
BIBLIOGRAPHY	98

LIST OF TABLES

TABLES	Page
1. Level of Support for Communication Training Among Sixteen Michigan Companies	34
2. Means and Standard Deviations of Responses by Managers of Sixteen Companies to Item 1	37
3. Means and Standard Deviations of Responses by Managers of Sixteen Companies to Item 2	38
4. Means and Standard Deviations of Responses by Managers of Sixteen Companies to Item 3	39
5. Means and Standard Deviations of Responses by Managers of Sixteen Companies to Item 4	40
6. Means and Standard Deviations of Responses by Managers of Sixteen Companies to Item 9	41
7. Means and Standard Deviations of Responses by Managers of Sixteen Companies to Item 21	42
8. Means and Standard Deviations of Responses by Managers of Sixteen Companies to Item 5	44
9. Means and Standard Deviations of Responses by Managers of Sixteen Companies to Item 6	45
10. Means and Standard Deviations of Responses by Managers of Sixteen Companies to Item 7	46
11. Means and Standard Deviations of Responses by Managers of Sixteen Companies to Item 8	47
12. Means and Standard Deviations of Responses by Managers of Sixteen Companies to Item 10	48
13. Means and Standard Deviations of Responses by Managers of Sixteen Companies to Item 12	50
14. Means and Standard Deviations of Responses by Managers of Sixteen Companies to Item 14	51
15. Means and Standard Deviations of Responses by Managers of Sixteen Companies to Item 15	52

LIST OF TABLES, Con't.	Page
16. Means and Standard Deviations of Responses by Managers of Sixteen Companies to Item 11	54
17. Means and Standard Deviations of Responses by Managers of Sixteen Companies to Item 13	55
18. Organizational Structure Scores	56
19. Means and Standard Deviations of Responses by Managers of Sixteen Companies to Item 16	58
20. Means and Standard Deviations of Responses by Managers of Sixteen Companies to Item 17	59
21. Means and Standard Deviations of Responses by Managers of Sixteen Companies to Item 18	60
22. Means and Standard Deviations of Responses by Managers of Sixteen Companies to Item 19	61
23. Means and Standard Deviations of Responses by Managers of Sixteen Companies to Item 20a	62
24. Means and Standard Deviations of Responses by Managers of Sixteen Companies to Item 20b	63
25. Means and Standard Deviations of Responses by Managers of Sixteen Companies to Item 20c	64
26. Environmental Uncertainty Scores	65
27. Analysis of Structure and Environment as Predictors of Training	67
28. Summary of Findings Showing Structure and Support Designations for Each Manufacturing Firm	69

LIST OF FIGURES

FIGURES	Page
1. Correlation Matrix for Centralization Items 1, 2, 3, 4, 9 and 21	43
2. Correlation Matrix for Formalization Items 5, 6, 7, 8 and 10	49
3. Correlation Matrix for Impersonalization Items 12, 14 and 15	49

CHAPTER I

THE PROBLEM AND ITS BACKGROUND

Statement of the Problem

A growing number of organizations are designing and implementing training programs to develop employee communication skills. While some companies maintain in-house training programs aimed at verbal communication skill improvement, others subsidize employee instruction at nearby colleges or other academic institutions. Verbal skills have become the focus of considerable attention as managers realize the profit potential of effective organizational communication. Poor verbal skills are linked to problems ranging from low productivity to the failure of subordinates to carry out responsibilities. "Far too many of our job market entrants are coming to us as functional illiterates," according to James Bere of Borg-Warner Corporation, who believes that the business community has little choice but to take on the task of basic skill improvement in verbal communication (Adkins, 1981, p. 48).

Business organizations have indeed assumed responsibility for this training; the proliferation of literature pertaining to the importance of communication skills in all areas, at all levels, of business and industry attests to this spreading concern. But because this concern has emerged relatively recently, little study has been devoted to organizational propensity for supporting training for

staff members. Few would argue but that improved communication skills facilitate job efficiency, but what kind of organization is willing to invest in efforts to improve those skills? This study attempted to address that question.

Rationale for the Study

In order to investigate the relationship between organizations and communication training, two central issues were first studied. The first concerned the status of training programs offered by organizations to date. The second involved establishing a link between communication training and organizational structure.

Communication Training Sponsored by Organizations

Denton (1979) conducted a study to determine the status of in-house communication training programs with respect to company size, program content and staffing. Of 316 companies responding to his survey instrument, 123 (38.8%) offered one or more programs. Companies employing between 5,000 and 50,000 individuals were more likely to sponsor programs (51%). Programs typically were characterized by the use of workshops, mini-lectures and group discussion. Class size ranged from 15 to 18 employees and contact hours varied enormously, with a range of 4 to 35 hours per employee. Training staff members, college faculty or consultants were primary teaching personnel. When asked to provide a rationale for instituting training programs, respondents frequently cited an increasing interest in continuing education, a rapidly accelerating pace of technological

change and national concern for literacy. Responses from top management about the success of the programs were quite favorable: 72% of the respondents indicated that managers were pleased both with the programs and with their results.

No similar data are known to exist for companies which provide financial support for communication training outside of the organization. Information is available, as it appears in training related literature, with regard to specific programs offered by various organizations; however, no estimate can be made of the number of companies offering out-of-house training opportunities to their employees. It is clear that a need for such training has been expressed. In 1978, Dr. Harold T. Smith of Brigham Young University surveyed members of the Academy of Certified Administrative Managers to determine 20 competencies critical to their jobs. Each item in the list of 20 was then rated by 457 members of the Academy as either super critical, highly critical or critical. Four rated as super critical were all related to communicating (Mundale, 1980).

Organizational Structure

The view that organizations are information processing systems emerged as a link between systems theory and contingency theory (Luthans, 1981). Tushman and Nadler (1978) described the three major assumptions of the information processing perspective as: (a) organizations must be structured to cope with environmental and task uncertainty; (b) a basic function of the structure is to create configurations of work units to facilitate the flow of information; and

(c) subunits within an organization must be arranged to optimize information processing through integration and coordination. Organizational structure should reflect the flow of communication within the organization: its direction, complexity and amount.

From an information processing perspective, organizations may also be characterized as mechanistic or organic in structure (Burns and Stalker, 1961). Mechanistic structures were characterized by centralized decision making processes, downward communication flow, restricted communication flow, specialized sub-units and reliance on formal rules and procedures. Organic structures exhibited decentralized decision making procedures, upward and lateral communication flow and less reliance on formal rules and regulations. The two forms of structure represent polarities. An organization can be placed along a mechanistic-organic continuum; in fact, a single organization might oscillate between the two extremes over a period of time. The authors stressed, however, that important structural differences existed among organizations and that the mechanistic-organic distinction provided a useful framework for identifying those differences.

Organizational Environment

Environmental stability must be considered as a variable which affects organizational structure and function. As noted previously, one of the reasons cited, by a company executive, for instituting a communication skills program was the rapid pace of technological change. Burns and Stalker (1961) developed their systemic distinction in the context of organizational adaptation to technical and

commercial change. Changing, dynamic environments with a high degree of uncertainty characterize organic structures. Stable, predictable environments with low degrees of uncertainty indicate mechanistic structures. Organic structures are linked with unit technologies, while mechanistic structures are linked with process technologies (Stech, 1981).

Purpose of the Study

Both mechanistic and organic systems require information processing capabilities; however, those capabilities are thought to vary in scope and importance according to differing degrees of centralization, formalization and environmental uncertainty within the organization. Because information processing depends ultimately upon the communication skills of organization members, a central question was: Will organic or mechanistic organizations be more likely to make skill improvement programs available to their employees? As authority is diluted and requirements for integrated activity among sub-units increase, perhaps communication skills are perceived as more crucial in organic structures. Conversely, mechanistic structures may have no less a stake in upgrading employee verbal proficiency; given their reliance upon written modes of communication, in tandem with the widespread clamor for employee literacy, traditional bureaucratic organizations may be similarly inclined to promote communication training. The purpose of this study was to determine which organizational type--organic, mechanistic or mixed--is more likely to financially support employee communication skill development through in- or out-

of-house training programs.

Limitations of the Study

Sample size was necessarily limited because of time and funding factors. While the sample size was adequate for hypothesis testing, a larger sample would be desirable under more ideal research conditions.

The location of manufacturing firms included in the sample proved problematic in obtaining uncontaminated perceptions of environmental uncertainty. Michigan's current recessionary economy may have influenced participants' responses to survey items concerning the market and technological environments.

Significance of the Study

While some studies relating the importance of communication processes to organizational structure exist, no research report was found which specifically addressed organizational commitment to program development in communication skills. Most of the training and development literature focuses on the need for superior communication skills of members, but what kind of organization takes practical steps to upgrade those skills is unclear. The findings of this study should contribute to knowledge of organizational structure and its relationship to information processing as well as to awareness of organizational promotion of communication skills in the workplace.

Organization of the Study

Substantial literature exists concerning organizational structure and the function of communication in organizations. Studies pertaining to communication as it relates to structural considerations of environmental uncertainty, formalization, centralization, functional specialization, communication flow and employee orientation were found and are discussed. Information concerning communication programs sponsored by a limited number of business firms is presented in Chapter II. Because the literature so far located was scanty, much of the material reported reflects specific organizational attempts to redress deficient communication skills of employees. The emphasis upon need for such programs will be thrown into sharp relief.

For the purpose of this study, both in- and out-of-house communication training efforts were included. The study design described in Chapter III delineates criteria used to verify the presence of organizational commitment to communication training as well as the criteria used to classify organizations according to type, i.e., mechanistic, organic or mixed. Population and sample surveyed, instrumentation developed, methods of data collection used, data sought, hypotheses investigated and methods of data analysis followed are also specified in that chapter.

The final two chapters, Chapters IV and V, present findings from the data analysis and make recommendations for further study. Conclusions drawn from this research should provide partial response to Denton's plea for research in the field of corporate training in

communication: "Certainly the time is here for close analysis of this important part of our discipline to appear in published form" (p. 14).

CHAPTER II

REVIEW OF LITERATURE

Literature is scanty in the area of organizational efforts to improve employee communication skills. Most of the literature reviewed here concerns training tips found in training and development periodicals. While literature in the area of organizational structure is plentiful, information specifically relevant to the structural properties most closely associated with information processing, or communication, is less abundant.

Communication Training

Employers have learned that communication skills are critical for organizational maintenance and growth. An increasing number of organizations are designing or purchasing reading and writing programs. Mistakes and failures caused by written reports, lost sales resulting from poorly written proposals and negative images of the company reflected in poorly written documents have spurred the movement toward company communication training programs (Adkins, 1981).

Both in-house and out-of-house programs receive financial support from some companies. Training which takes place outside of the organization typically consists of coursework or workshops sponsored by nearby higher education institutions. Denton (1979) reported that 74% of the 65 organizations he surveyed to determine the presence of in-house programs send their employees to short

courses offered by nearby universities. Of 132 responding organizations, each having between 5,001 and 50,000 employees, 51% offered at least one in-house writing program.

Whalen (1980) suggested four advantages of implementing in-house communication training programs:

1. Scheduling sessions to the company's advantage
2. Increased employee goodwill
3. Selectivity over material
4. Savings over seminars and accredited evening classes

The in-house course often is relatively inexpensive, as it saves travel fares, fees to outside agencies and time taken out of the work week. A responsible manager should be in charge of the curriculum that includes such a course, so that specific organizational problems with regard to the flow of communication, as well as the quality of the communication, can be attacked. Whalen also suggested that a consultant be hired initially to diagnose problems in communication processes within the organization.

Albert Joseph, President of the Industrial Writing Institute, Cleveland, Ohio, (see "Why it Pays," 1978) suggested that the following factors be considered when instituting in-house programs:

1. Objectives. Announcing worthwhile objectives at the beginning of a course in written communications, for example, helps overcome employee anticipation of boredom.
2. Content. A course must give specific analytical advice to employees. It is not enough to say that reports and letters must be clear and organized.

3. Resistance. Expect some resistance to the programs. Most courses addressing written communication for adults tend to be remedial; however, resistance indicates that participants are thinking and caring about the program.

4. Format. It is important that instruction be delivered in a class/group situation so that others can react to communication efforts of one individual.

5. Managers. Train the managers in specific communication skills first. The executives should enroll in the program before their subordinates. If they cannot, at least brief them on course benefits and objectives.

6. Group mix. Try to schedule a mixture of professional skills. When all of the participants are in the same department, they may have the tendency to say, "We have special problems that nobody else understands." This is sometimes an excuse for unclear communications.

Honeywell Corporation, which offers a number of courses through its continuing education program, conducts training in letter and report writing, business English and writing for engineers. The program is open to any professional person within the company. The evaluation of the training program, assessed by pre- and post-test results, indicated that length of letters and reports was reduced 45%, thus raising readability 27%. Persuasiveness increased 76% and overall effectiveness was increased 46% (Mundale, 1980).

Addams (1981) studied the effect that participating in intensive workshops for developing accountants' written and oral communication skills had on performance evaluations. He found that writing

ability and oral communication skill influenced performance appraisals of accountants and thus affected their salary and promotion.

No reports linking communication skill and organization function were found in the literature. Instead, most authors pointed to the necessity of effective communication skills in gathering and processing information vital to the organization's maintenance and growth. That individuals should possess adequate communication skills is posited on the known importance of communication to all aspects of organizational behavior and structure. Academic journal articles focus on program objectives and specific activities or assignments that should be utilized by communication training instructors.

Denton's study provided one of the few clues located that a substantial number of corporate communication training programs are in place. As he noted, no complete assemblage of the names or numbers of those businesses supporting such programs exists. Other references cited here indicate that attention is being paid to employee communication skills, but the relationship between that attention and organizational characteristics is unstudied.

Organizational Structure and Environment

The determinant role that structure plays in communication processes has been well substantiated. Organization structure refers to the patterned arrangement of relationships among units and components within a system (Rogers and Rogers, 1976). Basic structure involves issues such as how the work of the organization will be divided and assigned among those units and components, and how the coordination

necessary to accomplish organizational objectives will be achieved (Lorsch, 1970). Organizational structure lends predictability to communication and thus facilitates goal accomplishment (Rogers and Rogers, 1976). March and Simon (1958) proposed that the capacity of an organization to maintain an interdependent pattern of activity depends upon its capacity to handle the communication required for coordination. Deutsch (1963) linked the concept of organization to information and communication by viewing the organizational system as a set of elements joined by way of communicating information.

Pugh, Hickson, Hinings, Macdonald, Turner and Lupton (1963) hypothesized six primary variables of organizational structure: (a) specialization, (b) standardization, (c) formalization, (d) centralization, (e) configuration, and (f) flexibility. The variable "specialization" refers to the division of labor within an organization, or degree of functional differentiation. "Formalization" refers to the degree to which communications and procedures in an organization are written down and filed, while "standardization" refers to the locus of authority for making decisions affecting the organization. A factor affecting centralization includes the legitimate availability of relevant information. "Configuration" concerns the authority structure, commonly expressed in an organizational chart. "Flexibility," as described by the authors, expresses changes in the organization structure. This variable is apparently connected to environmental uncertainty; flexibility refers to the organization's ability to respond to a changing environment. The authors cited Burns and Stalker's (1961) study of the impact of

electronics on traditional Scottish firms:

The two ideal types of organization, the organic (continuous change) and the mechanistic (no change), as described by Burns and Stalker may be considered as examples of the extreme end of the flexibility dimension. (p. 307)

Burns and Stalker characterized mechanistic systems as having a hierarchic structure of control, authority and communication. Reinforcement of the hierarchic structure occurred as long as the location of knowledge was exclusively at the top of the hierarchy. The organic form, appropriate to changing conditions, was characterized by a network structure of control, authority and communication. Lateral, rather than vertical, directions of communication flow existed throughout the organization. Communication took place among people of different ranks and consisted of information giving and advice rather than instructions and decisions.

Hage and Aiken (1967) examined the relationship between centralization of power and the degree of formalization and complexity in organizational structure in a data-based research study. The degree of centralization, or distribution of power, was found to be associated with both formalization (utilization of rules) and complexity (utilization of knowledge). Centralized structures, having fewer loci of decision making, tended to be more formal and less complex than structures with diffuse decision making loci. The strongest positive relationship identified was that between centralization and complexity; a less strong, but still supported, positive relationship existed between centralization and formalization.

Tushman and Nadler (1978) used the concepts of information

processing and environmental uncertainty as variables which are determined by organizational or task unit structure. Five propositions, paraphrased below, were generated from a mass of relevant literature extant in 1977:

1. The tasks of organizational subunits vary in their degree of certainty.
2. As work related uncertainty increases, so does the need for increased amounts of information, and thus the need for increased information processing capacity.
3. Different organizational structures have different capacities for information processing.
4. Organizations will be more effective when there is a match between information processing requirements facing the organization and information processing capacity of the organization's structure.
5. If organizations (or subunits) face different conditions over time, more effective units will adapt their structures to meet the changed information processing requirements.

Tushman and Nadler also referred to the mechanistic-organic distinction as a critical dimension of subunit structure affecting information processing:

Organismic communication networks have a greater ability to deal with work related uncertainty than do more hierarchical or mechanistic communication networks. . . . Two dimensions of subunit structure affect its information processing capacity: the mechanistic-organismic nature of the unit's structure, and the nature of coordination and control mechanisms. (p. 617-18)

Similarities and differences in structure from organization to

organization may reflect adaptation to the forces presented by their environments. Degree of change in the environment is one aspect affecting structure and may be conceived as a continuum ranging from stability to volatility (Tosi and Carroll, 1976). Mechanistic organizations appear to develop in response to stable market and technological environments; organic organizations appear to develop in response to changing, dynamic market and technological environments.

Lawrence and Lorsch (1967) contrasted organizational characteristics using the mechanistic/organic polarity. Their findings supported those of Burns and Stalker: Effective organizational units operating in stable environments are more highly structured, while those in more dynamic environments are less formal.

Hage, Aiken and Marrett (1971) related communication patterns to organizational structure and arrived at three major conclusions, paraphrased here:

1. Organization complexity, as measured by the number of occupational specialties and degree of professional activity, was found to be positively associated with the intensity of organization communications.

2. Correlations between communication and formalization indicated that the presence of job descriptions was negatively related to the frequency of interactions and job specificity tended to affect the frequency of communications (except in the same status level).

3. A strong positive relationship was found between the degree of participation in decision making and the frequency of scheduled and unscheduled communications.

To summarize, organizations with wide decision making participation exhibited a higher degree of interdepartmental communication. In decentralized organizations, there was greater interdepartmental communication in all directions.

Duncan (1971) also viewed the communication of information as an essential part of organizational structure. In his study of organization decision making unit structure and perceived environmental uncertainty, he found that dynamic, uncertain environments required extensive information gathering and processing capabilities. In decision making units with low perceived uncertainty (little change), information needs were relatively low. Duncan concluded that in order for an organization decision unit to be effective and react to its environment, it must be able to gather and process information so that:

- (a) it can become aware of the state of its internal and external environment;
- (b) it can assess what alternative courses of action are available in responding to a decision making situation.

Summary

Organizational structure has been shown to both determine and reflect communication processes within the organization. One of the most important functions of organizational structure is to control the flow of information among system members, units and sub-units.

Information flow can also determine and reflect the relationship between the organization and its environment. Less restricted information flows, coupled with intense need for information, characterize organizations in volatile environments. More restricted

information flows, associated with a reduced need for information, characterize organizations in stable environments.

Aspects of organizational structure pertinent to both communication processes and definitive criteria for the mechanistic/organic continuum are centralization of decision making, formalization of communication rules and procedures and functional specialization. Organic organizations are characterized by decentralized decision making processes, informal communication paths, and a low degree of functional specialization. Mechanistic structures reflect centralized decision making processes, formalized communication rules and procedures and a high degree of functional specialization.

Members who fill positions within the organization act as links in communication networks. The present investigator believes that communication networks are ultimately dependent upon the skills of individuals occupying linkage positions, and poor skills in communicating have been associated with a variety of organizational problems. For this reason, companies are beginning to allocate resources to upgrade employee communication skills. While some data are available which indicate that a growing number of organizations are training employees in the area of verbal communication, no information was found to date concerning organizational propensity to invest in such programs.

In order to examine the relationship between an organization's structure and environment and the presence of support for communication skill training, the following propositions were identified for exploration.

1. Organizations exhibiting primarily organic characteristics, as evidenced by decentralization, low formalization and low functional specialization, operate in uncertain environments.

2. Organizations exhibiting primarily organic characteristics are likely to support communication skill training programs for their employees.

Description of the study design and methodology used to investigate these propositions follows in Chapter III.

CHAPTER III

DESIGN AND METHODOLOGY

Hypotheses investigated, population and sample surveyed, instrumentation developed, methods of data collection used and methods of data analysis applied are presented in this chapter. Criteria used to classify organizations as organic, mechanistic or mixed, as well as criteria used to determine company support for communication training, are outlined. The study design delineated here was intended to translate the preceding propositions into hypotheses with operationalized variables. These hypotheses are stated below.

Hypotheses

The first proposition stated at the close of Chapter II concerned the likelihood that organic organizations are characterized by uncertain environments. The following hypothesis was formulated in order to explore this proposition:

- H₁: An organic organization (measured by employee perceptions of centralization, formalization, specialization and impersonalization on a 4-point scale) will be characterized by an uncertain environment (measured by employee perceptions of environment on a 4-point scale).

The second proposition, and the main concern of the present investigator, concerned the likelihood that organic organizations tend to support communication training programs. An operationalized

statement was developed to explore this proposition:

- H₂: An organic organization (measured by employee perceptions of centralization, formalization, specialization and impersonalization on a 4-point scale) will show significantly more support for communication training than a mechanistic organization.

Population and Sample

Manufacturing organizations in southwestern Michigan, each employing between 100 and 500 individuals at one site, constituted the population under study. A sample of 16 companies (see Appendix A) was selected from 33 firms targeted for possible selection. All 33 companies met the criteria for selection, which follow, but 16 of those each supplied a sufficiently complete set of data necessary for inclusion in the study (see The Sample, p. 30). Criteria for sample selection were size (number of employees), proximity for the purpose of interviewing, and the presence of a personnel division within the company. Each was also required to be operating in a sufficiently sound state of financial health. The allocation of a training and development budget was assumed to be an indicator of organizational health.

Data collection techniques used in this study required a sample of organizations that could be reached within a reasonable period of time. For that reason, all companies chosen are located in the southwestern portion of Michigan's lower peninsula; this includes Kent, Ottawa, Barry, Allegan, Berrien, Cass, St. Joseph and

Kalamazoo counties. The Michigan Index of Manufacturers 1980 served as a reference guide in choosing companies that fit sample selection criteria.

Instrumentation

Measures for determining organizational structure, environmental uncertainty and company support for communication training were obtained for each manufacturing firm. A rationale is provided for each aspect of the "organizational structure" variable presented below. Specific survey items developed for aspects of the "structure" variable, "environmental uncertainty" variable and "company support" variable are also discussed.

Organizational Structure Characteristics

Structure measures were obtained for each company relating to centralization of decision making processes, formalization of communication rules and procedures, degree of impersonalization and functional specialization. Measures used for determining centralization, formalization and impersonalization were those of Duncan (1971), who used these items in his study of environmental uncertainty and decision unit structure, and of House and Rizzo (1972), who developed an organizational practices questionnaire for testing construct validity of organization description scales. The present study incorporated selected items from both sources which were deemed most appropriate to structure considerations. Functional specialization measures were obtained from Stech (1981), who developed items for

assessing organizational communication practices. Spearman-Brown reliability coefficients for structure and environment measures were .66 and .75 respectively.

Centralization of decision making processes. The locus of decision making within an organization will indicate organic or mechanistic propensity. Burns and Stalker stated:

A mechanistic management system is characterized by . . . a tendency for operations and working behaviour to be governed by the instructions and decisions issued by superiors. (1961, p. 122)

The degree of centralization for each organization was assessed from employee responses, using a 4-point Likert-type scale, to the following items. Item numbers agree with those of the instrument in Appendix E. Response choices on the 4-point scale for each item are also shown in Appendix E.

1. Supervisors have enough authority to handle the problems that come up in their work groups.
2. Supervisors must get approval for certain decisions which they should be able to make alone.
3. In this work group, most people have a voice in making decisions affecting our work.
4. We are encouraged by top management to make suggestions about the work we do.
9. There is usually a mix, in terms of job levels and functions, of employees present at a regular meeting of our work group.
21. To what extent are ad hoc study groups formed to consider possible innovations which might benefit the firm?

Formalization of rules and procedures. Pugh et al. (1963)

defined formalization as a structural variable which they interpreted as reflecting points of Weber's definition of bureaucracy. Formalization includes (a) statements of procedures, rules and roles and (b) written procedures for operations, including the conveying of decisions and feedback. Burns and Stalker found that in mechanistic organizations there was more reliance on formal rules and procedures than in organic organizations. The degree of formalization for each company in the present study was determined from employee responses, again using a 4-point Likert-type scale, for responses to the following items (again numbered as in Appendix E).

5. Rules and procedures for communicating are developed as we go along.

6. There are rules and procedures for handling any kind of problem which might arise in our work.

7. To obtain the information needed to do our jobs, it is usually necessary to go through the proper channels.

8. The same rules and procedures are usually followed when problems arise from lack of information needed to do our jobs.

10. The organization works to a written law.

Functional specialization. Burns and Stalker also distinguished mechanistic organizations from organic by ascertaining the degree of task specialization. A mechanistic company, according to them, is characterized by:

the specialized differentiation of functional tasks into which the problems and tasks facing the concern as a whole are broken down. (p. 119)

Organic companies are characterized by:

the contributive nature of special knowledge
and experience to the whole of the concern;
the adjustment and redefinition of individual
tasks through interaction with others. (p. 121)

Two items relevant to task specialization were incorporated into the structure measures, with response options and item numbers again as shown in Appendix E.

11. How much variety in tasks, assignments or things to do is there generally in a normal working week in your group?

13. To what extent do people in your work unit do about the same job in about the same way most of the time?

Impersonalization and employee orientation. The degree of impersonalization, or lack of regard for the individual working within an organization, was incorporated as an aspect of structure because Burns and Stalker found that mechanistic organizations tended to "insist on loyalty to the concern and obedience to superiors as a condition of membership" (p. 119). The organic form stressed individual commitment to the "technological ethos" of material progress and individual affiliation with expertise external to the firm. Responses to the following items were recorded as measures of impersonalization, with response options and item numbers again as shown in Appendix E.

12. Employees feel free to discuss company affairs with co-workers.

14. We are encouraged to speak our minds, even when disagreeing with top management.

15. Our careers are regarded as important as the well-being of the firm.

Environmental Uncertainty Measures

Environmental uncertainty measures were obtained from Stech (1981), who used these items in his organizational communication practices questionnaire. In addition to citing structural characteristics of organizations belonging to mechanistic and organic categories, Burns and Stalker described the environments associated with each structural type. They found that stable environments were appropriate to mechanistic organizations, while uncertain environments characterized organic organizations. To assess the external environment in which the selected companies function, responses to the following items were obtained (once again, item numbers agree with those of the instrument in Appendix E and response choices are shown there).

Tosi and Carroll (1976) emphasized the need for distinguishing between internal and external environments when ascertaining the degree of environmental stability. Both market and technological conditions must be considered; for that reason, three of the items concerned these factors.

16. To what extent does your organization have to take a lot of information about competitors into account in making decisions?

17. To what extent is it difficult to assess the effectiveness of plans and decisions before they are implemented?

18. To what extent does your organization seem to face rapid changes in factors which influence plans?

19. To what extent have changes in market conditions been significant over the past 5 years?

20. How significant have changes in technology been in the past five years for product design? Production? Marketing?

Measures of Support for Skill Improvement

The following data were gathered from personnel directors to determine company support for training programs in communication skill development for employees (see Appendix C).

1. Do you offer training programs in written communication skills to employees? Oral?

2. Do you offer tuition subsidies to employees for training in communication skills at educational institutions?

3. If you offer training and/or financial support to employees receiving training in oral/written communication skills, please describe the following program characteristics: (a) in- or out-of-house? (b) number of employees involved yearly? (c) job level of employees involved? (d) frequency of offerings? (e) estimate of contact hours per employee? (f) estimate of training and development budget percentage devoted to communication training? (g) estimate of company budget percentage devoted to all training and development?

Data Collection

The measures for all aspects of the independent variables and

the dependent variable involved employee self-reports. Perceptual measures were used because they were most appropriate to the variables under study. All instrument items focused on the organization as the unit of analysis. Objective measures, such as company organizational charts and manuals, have been used in other studies of organizational structure (Woodward, 1958; Evan, 1963; Pugh et al., 1968); however, structural characteristics associated with information processing are best suited to perceptual measures (Duncan, 1971). Duncan defended the use of perceptual measures on the grounds that no practical, objective measures had been developed which reflected organization decision structures. Also, according to Allen (1976), purely objective charting activities as a means of gathering valid data do not accurately reflect organizational structure.

Walton (1981) addresses the problems of measuring organizational structure using survey (perceptual) and institutional (ratios, charts) data. Unless the focus of measures used in either method is clearly stated, the likelihood of obtaining convergent relationships between alternative measures of the same concept is substantially reduced. Because the data collected in this study involved employee perceptions of structure variables, the limitations Walton suggests have been acknowledged. Structure measures used here were not assumed to be interchangeable with charting measures which might have been obtained.

Survey instruments were distributed to no fewer than three employees at the upper managerial levels at each company site. Most personnel directors were interviewed; however, if a director was not

available for interviewing, the survey was mailed. Job occupants at the upper managerial levels were selected because they were most closely associated with decision making, a key determinant of organizational structure. Hage (1974) chose this level of job occupancy in his study of organizational communication for this reason. Each company in the sample provided a complete "set" of data for analysis comprised of (a) three to five completed organizational structure survey instruments and (b) information concerning training in communication.

Methods of Analysis

Analyzing the data obtained from interviews and survey instruments first involved the creation of data banks containing information regarding company support for communication, organizational structure and degree of environmental uncertainty. Methods of analysis for communication training support, structure and environment follow.

Support Measures

Responses to survey items with reference to organizational support of communication training programs were classified as indicating either "non-existent," "minimum," "moderate," or "strong" support, according to the following criteria.

Non-existent support for communication training was determined to exist if no resources were allocated to upgrading employee communication skills.

Minimum support for communication training was considered to

exist if the company sponsored at least one program devoted to either written or oral communication skill improvement involving no fewer than 10 contact hours per employee and being offered at least once a year. No restrictions were placed on the nature of the program as an indicator of minimum support; in other words, a seminar, workshop or tuition subsidy for one course taken outside of the company indicated minimum support for communication skill improvement.

Moderate support for communication skill training was considered to exist if more than one program was offered to employees during the year, involving a minimum of 10 contact hours per employee, and if the programs were allocated less than .5% of the training and development budget.

Strong support for communication skill training was considered to exist if more than one program was offered to employees during the year, involving a minimum of 15 contact hours per employee and if the programs were allocated more than .5% of the training and development budget.

Structure and Environment Measures

Responses to survey items with reference to organizational structure and environmental uncertainty were tallied for each organization. Means of response values and standard deviations of those means were calculated for all items and for each company, using the Likert-type scale values. Organizational means of the pooled individual response scores were calculated for both structure and environmental uncertainty variables. Each organization was then labeled

as mechanistic, organic or mixed and as exhibiting non-existent, minimum, moderate or strong support of communication training for employees. Correlations and multiple regression analysis were computed to determine whether significant relationships existed between (a) structure and environment and (b) structure and support for training..

Summary

Hypotheses were introduced to test whether organic structures operate in uncertain environments as well as support communication training for company employees. The sample, 16 manufacturing firms located in southwestern Michigan, and instrumentation were then specified. Methods of data collection and analysis for structure, environment and support measures followed. Results of the study are discussed in Chapter IV.

CHAPTER IV

RESULTS OF THE STUDY

Characteristics of sample organizations, organizational responses with respect to the variables under study, an analysis of responses and results of hypothesis testing are presented in this chapter.

The Sample

Thirty-three companies were originally targeted for possible inclusion in the study, each meeting the criteria listed in Chapter III, but only 16 were finally selected on the basis of completeness of data. Those 16 are listed alphabetically in Appendix A, but only numbers are used for identification in this chapter, since anonymity was guaranteed to all study participants. The numbers do not correspond to the Appendix listing.

Once a complete set of data was received from a company, the company was included in the sample. Complete sets of responses from these 16 firms were obtained within one month after the original contacts were made. Eighty-five managers were originally contacted at 33 companies; 54 managers from 16 companies comprised the final sample. Personnel directors from all firms in the final sample furnished data. Each company data set included three to five managers' responses to the organizational structure survey form and a completed survey/interview form from the personnel director.

Support for Communication Training Programs

Personnel directors were queried as to the nature and extent of company-supported programs in communication skill development. The survey form to which they responded is shown in Appendix C, and the letter accompanying it in Appendix B. Using the criteria established in Chapter III, a level of support was designated for each company in the sample. Table 1 displays this information.

Of the sixteen manufacturing firms studied, only three reported offering absolutely no support. Minimum support was typically demonstrated by a tuition subsidy provided to employees enrolled in nearby universities; if employees requested reimbursement for coursework in communication, provision was granted if the courses were considered relevant to their positions. Eight of the 16 organizations were characterized as providing minimum support.

One of the sixteen organizations reported efforts that were classified as moderate support. This company reported conducting one in-house seminar, on the average, for between 26 and 50 employees per year. The company also grants a 50% tuition subsidy to employees enrolling in communication courses at nearby universities, but spends less than .5% of its training and development budget on communication training.

Strong support was indicated by responses from four of the organizations. These companies reported offering in-house training to employees and tuition subsidies to employees more than five times a year, and spending between .5% and 1% of their training budgets on

Table 1
Level of Support for Communication Training
Among Sixteen Michigan Companies

Company Number	n*	% Training Budget	Contact Hours Per Employee	Level of Support
1	4	none	none	none
2	3	less than .5%	1 - 9	minimum
3	3	between .5 and 1%	15+	strong
4	5	between .5 and 1%	15+	strong
5	3	less than .5%	1 - 9	minimum
6	3	1% or more	15+	strong
7	3	less than 5%	1 - 9	minimum
8	3	less than .5%	15+	minimum
9	5	between .5 and 1%	15+	strong
10	4	less than .5%	1 - 9	minimum
11	3	less than .5%	1 - 9	minimum
12	3	less than .5%	15+	moderate
13	3	less than .5%	1 - 9	minimum
14	3	none	none	none
15	3	less than .5%	1 - 9	minimum
16	3	none	none	none

*n corresponding to each company number is the same for all tables which follow (Tables 2-28)

communication training. Programs in all four companies classified as showing strong support were open to all employees. Employees participating in communication training programs having strong company support include top management, middle management, sales, clerical and production personnel. Contact hours of 15 or more per employee were reported for combined in- and out-of-house programs. Instruction of in-house seminars or workshops was typically conducted by paid consultants. Either faculty from nearby universities or independent consultants were reported to be hired as seminar leaders. Basic writing skills, letter and report writing and technical writing were most frequently addressed in writing programs. One company sponsored a workshop in oral communication skills for its employees.

Structure

Three to five employees from top management in each of the 16 companies completed and returned the survey form relating to structure (see Appendix E) which had been sent to them along with a transmittal letter (Appendix D) and information about communication training (Appendix F).

Responses to the survey items indicating mechanistic, organic or mixed organizational structures were tallied. Centralization, formalization, impersonalization and specialization components were combined into a single score. First, the individual score was recorded for each respondent; then individual scores were pooled for each item and the mean for each was then calculated. The means of responses for all structure items were then pooled to arrive at a

company structure score.

Transformations were computed for values recorded for survey items (2, 6, 7, 8, 10, 11 and 13) so that all Likert-type values were in the same direction for organic and mechanistic characteristics. Organic values were toward 1 and 2 on the Likert-type scale, while mechanistic values were toward 3 and 4.

Centralization of decision making, formalization of communication rules and procedures, impersonalization and task specialization were all treated as aspects of the independent variable "structure." Specific items addressing each aspect are shown in Tables 2 through 17 which display the company means and standard deviations for each item. A complete correlation matrix for all structure items appears in Appendix H.

Centralization

The degree of centralization of decision making processes was determined by tabulating the means of responses to items 1, 2, 3, 4, 9 and 21 of the survey instrument. Tables 2 through 7 display mean responses and standard deviations to centralization items 1-4, 9 and 21, by company, along with the response scale possible for each item.

Items showing the least variance for all companies were numbers 1 and 4. Item 1 stated that supervisors have enough authority to handle problems and Item 4 stated that employees were encouraged to make suggestions to top management. The weakest relationships found among centralization measures were between Item 9 and other centralization items. The complete correlation matrix, $n=54$, for

Table 2
Means and Standard Deviations of Responses
by Managers of Sixteen Companies
to Item 1

Company	Mean	Standard Deviation
1	1.75	.50
2	1.00	.00
3	2.00	.00
4	2.00	.00
5	1.00	.00
6	1.50	1.00
7	2.00	.00
8	3.00	.00
9	1.20	.44
10	1.75	.95
11	1.30	.57
12	1.00	.00
13	2.00	1.00
14	2.30	1.15
15	2.25	.50
16	2.00	.00

Response scale:

1 = Strongly Agree

3 = Disagree

2 = Agree

4 = Strongly Disagree

Table 3
Means and Standard Deviations of Responses
by Managers of Sixteen Companies
to Item 2

Company	Mean	Standard Deviation
1	3.00	.81
2	4.00	.00
3	2.33	.57
4	3.60	.54
5	2.50	2.12
6	2.00	.81
7	3.00	.81
8	1.50	.70
9	1.80	.83
10	2.50	1.00
11	3.66	.57
12	3.33	.57
13	2.66	1.15
14	2.00	1.00
15	3.00	.00
16	3.50	.70

Response scale:

1 = Strongly Agree

3 = Disagree

2 = Agree

4 = Strongly Disagree

Table 4
Means and Standard Deviations of Responses
by Managers of Sixteen Companies
to Item 3

Company	Mean	Standard Deviation
1	2.50	1.00
2	1.00	.00
3	1.33	.57
4	1.20	.44
5	2.50	.70
6	2.00	1.41
7	2.25	.50
8	2.00	.00
9	1.60	.54
10	2.25	.50
11	1.65	.57
12	1.00	.00
13	2.00	1.00
14	2.66	.57
15	2.00	.81
16	3.50	.70

Response scale:

1 = Strongly Agree

3 = Disagree

2 = Agree

4 = Strongly Disagree

Table 5
Means and Standard Deviations of Responses
by Managers of Sixteen Companies
to Item 4

Company	Mean	Standard Deviation
1	2.00	.81
2	1.00	.00
3	1.66	.57
4	1.20	.44
5	1.50	.70
6	1.25	.50
7	1.75	.50
8	3.50	.70
9	1.20	.44
10	1.50	1.00
11	1.33	.57
12	1.00	.00
13	1.66	.57
14	1.66	.57
15	2.00	.81
16	2.00	.00

Response scale:

1 = Strongly Agree

3 = Disagree

2 = Agree

4 = Strongly Disagree

Table 6
Means and Standard Deviations of Responses
by Managers of Sixteen Companies
to Item 9

Company	Mean	Standard Deviation
1	1.75	.95
2	1.66	.57
3	2.66	.57
4	1.60	1.34
5	1.00	.00
6	1.75	1.50
7	2.00	.00
8	3.50	.70
9	1.80	.83
10	2.25	.50
11	2.66	.57
12	1.33	.57
13	1.33	.57
14	1.66	.57
15	2.25	.95
16	3.50	.70

Response scale:

1 = Strongly Agree

3 = Disagree

2 = Agree

4 = Strongly Disagree

Table 7

Means and Standard Deviations of Responses
by Managers of Sixteen Companies
to Item 21

Company	Mean	Standard Deviation
1	2.25	.50
2	1.33	.57
3	2.00	1.00
4	2.40	.89
5	3.50	.70
6	3.25	.95
7	2.25	.50
8	3.50	.70
9	1.60	.54
10	2.50	1.00
11	3.00	1.00
12	2.66	1.15
13	2.66	1.15
14	2.66	.57
15	3.50	1.00
16	4.00	.00

Response scale:

1 = To a Great Extent

3 = To Little Extent

2 = To Some Extent

4 = To No Extent

centralization items appears below in Figure 1.

Item 1	1.00					
Item 2	0.35	1.00				
Item 3	0.55	0.25	1.00			
Item 4	0.71	0.44	0.50	1.00		
Item 9	0.42	0.09	0.24	0.49	1.00	
Item 21	0.39	0.15	0.35	0.42	0.28	1.00
Item 1	Item 2	Item 3	Item 4	Item 9	Item 21	

Figure 1

Correlation Matrix for Centralization
Items 1, 2, 3, 4, 9 and 21

Formalization

Measures for determining formalization of communication rules and procedures were obtained from responses to items 5, 6, 7, 8, and 10. Tables 8 through 12 display means and standard deviations of responses to these items for each company.

When formalization items were correlated, no significantly strong relationships were indicated. Items 6 (concerning rules for problems which might arise) and 10 (organization works to a written law) showed a low positive relationship ($r=.48$). Responses to Item 7 (it is usually necessary to go through channels to obtain information) exhibited the lowest incidence of inter-company variance. The item with the greatest inter-company variance was 6: Rules and procedures exist for any kind of problem which might arise in our work. The complete correlation matrix for formalization

Table 8
Means and Standard Deviations of Responses
by Managers of Sixteen Companies
to Item 5

Company	Mean	Standard Deviation
1	1.75	.50
2	3.00	1.73
3	1.66	.57
4	1.60	.54
5	3.50	.70
6	2.50	1.29
7	2.75	.50
8	2.00	.00
9	2.00	.70
10	2.00	.81
11	3.33	1.15
12	1.66	.57
13	2.33	1.52
14	3.00	1.00
15	2.00	.81
16	2.00	.00

Response scale:

1 = Strongly Agree

3 = Disagree

2 = Agree

4 = Strongly Disagree

Table 9
Means and Standard Deviations of Responses
by Managers of Sixteen Companies
to Item 6

Company	Mean	Standard Deviation
1	2.50	.57
2	3.66	.57
3	1.66	1.15
4	2.00	1.00
5	2.50	2.12
6	1.75	.95
7	2.25	.95
8	2.00	1.41
9	2.80	1.30
10	1.75	.95
11	2.33	1.15
12	1.66	.57
13	3.33	.57
14	1.66	1.15
15	1.50	1.00
16	2.50	.70

Response scale:

1 = Strongly Agree

3 = Disagree

2 = Agree

4 = Strongly Disagree

Table 10
Means and Standard Deviations of Responses
by Managers of Sixteen Companies
to Item 7

Company	Mean	Standard Deviation
1	2.75	.50
2	3.66	.57
3	3.33	.57
4	2.20	1.09
5	3.50	.70
6	3.50	.57
7	2.75	.95
8	2.50	.70
9	2.80	.83
10	3.25	.95
11	1.66	.57
12	3.00	.00
13	3.33	.57
14	3.00	1.00
15	3.25	.95
16	1.50	.70

Response scale:

1 = To a Great Extent	3 = To Little Extent
2 = To Some Extent	4 = To No Extent

Table 11
Means and Standard Deviations of Responses
by Managers of Sixteen Companies
to Item 8

Company	Mean	Standard Deviation
1	2.75	.95
2	3.66	.57
3	1.66	.57
4	2.20	1.09
5	4.00	.00
6	2.00	.81
7	1.75	.50
8	1.00	.00
9	2.40	.54
10	2.25	.50
11	2.00	1.00
12	2.33	.57
13	2.00	1.00
14	2.00	1.00
15	2.50	1.29
16	3.50	.70

Response scale:

1 = Strongly Agree

3 = Disagree

2 = Agree

4 = Strongly Disagree

Table 12
Means and Standard Deviations of Responses
by Managers of Sixteen Companies
to Item 10

Company	Mean	Standard Deviation
1	1.75	.95
2	3.00	1.00
3	2.00	1.00
4	2.20	.83
5	2.50	2.12
6	1.25	.50
7	2.25	.95
8	1.00	.00
9	1.60	.54
10	1.50	.57
11	2.66	.57
12	1.33	.57
13	1.66	.57
14	1.66	1.15
15	1.25	.50
16	1.00	.00

Response scale:

1 = Strongly Agree

3 = Disagree

2 = Agree

4 = Strongly Disagree

items, $n=54$, appears below in Figure 2.

Item 5	1.00				
Item 6	0.39	1.00			
Item 7	0.03	0.09	1.00		
Item 8	0.05	0.30	0.16	1.00	
Item 10	0.33	0.48	0.19	0.15	1.00
Item 5	Item 6	Item 7	Item 8	Item 10	

Figure 2

Correlation Matrix for Formalization
Items 5, 6, 7, 8 and 10

Impersonalization

The degree of impersonalization perceived by employees in each company was determined by responses to items 12, 14 and 15. Information about company responses to these items is located in Tables 13, 14 and 15.

Impersonalization items 14 and 15, stating that employees are encouraged to speak their minds and careers are regarded as important as the well being of the firm, showed a moderately strong, positive relationship ($r=.63$). The correlation matrix appears in Figure 3.

Item 12	1.00		
Item 14	0.28	1.00	
Item 15	0.16	0.63	1.00
Item 12	Item 14	Item 15	

Figure 3

Correlation Matrix for Impersonalization
Items 12, 14 and 15

Table 13
Means and Standard Deviations of Responses
by Managers of Sixteen Companies
to Item 12

Company	Mean	Standard Deviation
1	1.50	.57
2	1.00	.00
3	1.33	.57
4	1.40	.54
5	2.00	1.41
6	1.50	.57
7	1.50	.57
8	1.00	.00
9	1.60	.89
10	1.50	.57
11	1.33	.57
12	1.00	.00
13	1.66	.57
14	1.44	.57
15	2.00	1.41
16	1.50	.70

Response scale:

1 = To a Great Extent	3 = To Little Extent
2 = To Some Extent	4 = To No Extent

Table 14
Means and Standard Deviations of Responses
by Managers of Sixteen Companies
to Item 14

Company	Mean	Standard Deviation
1	2.00	.00
2	1.00	.00
3	2.33	.57
4	1.40	.54
5	2.50	2.12
6	1.25	.50
7	2.25	.50
8	3.50	.70
9	1.40	.54
10	2.25	1.25
11	2.33	1.52
12	1.33	.57
13	2.33	1.15
14	2.00	1.00
15	2.25	1.25
16	1.50	.70

Response scale:

1 = To a Great Extent	3 = To Little Extent
2 = To Some Extent	4 = To No Extent

Table 15
Means and Standard Deviations of Responses
by Managers of Sixteen Companies
to Item 15

Company	Mean	Standard Deviation
1	1.75	.50
2	1.33	.57
3	2.66	.57
4	2.60	1.14
5	1.50	.70
6	1.50	1.00
7	2.25	.50
8	3.50	.70
9	1.60	.89
10	2.25	1.25
11	1.66	1.15
12	1.66	.57
13	2.33	.57
14	2.66	1.15
15	2.50	.57
16	1.50	.70

Response scale:

1 = To a Great Extent 3 = To Little Extent
2 = To Some Extent 4 = To No Extent

Task Specialization

The degree of task specialization for each company was measured by employee responses to Items 11 and 13. Means responses and standard deviations for each company appear in Tables 16 and 17. Correlation of Items 11 and 13 showed a low positive relationship ($r=.40$).

Structural Classification of Organizations

Classification of the 16 manufacturing firms into organic, mechanistic or mixed categories was based upon the mean of pooled responses to all structure items. The minimum possible score for 16 structure items is 16 and the maximum possible score is 64. A company's structure score was established by computing the sum of the means of responses for all structure items. Transformations were computed for certain item values, as mentioned earlier, before the structure scores were computed. Organic organizations exhibited lower scores than did mechanistic organizations. Company structure scores and classification appear in Table 18.

The 33rd and 67th percentiles of organizational structure scores were calculated for the purpose of sorting organizations into mechanistic, organic and mixed categories. This decision was reached because organic responses seem to project more socially desirable values, thus producing a response bias in an organic direction. This response bias would tend to inflate scores of organizations with mechanistic propensity. Therefore, scores at the 67th percentile, or 34 and above, were considered indicative of structures that tended

Table 16
Means and Standard Deviations of Responses
by Managers of Sixteen Companies
to Item 11

Company	Mean	Standard Deviation
1	1.25	.50
2	2.00	.00
3	1.00	.00
4	1.00	.00
5	2.50	.70
6	1.50	.57
7	1.50	.57
8	1.00	.00
9	1.40	.54
10	1.75	.95
11	1.00	.00
12	1.33	.57
13	1.33	.57
14	2.00	.00
15	1.50	.57
16	1.00	.00

Response scale:

1 = A Great Deal

3 = Very Little

2 = Some

4 = None

Table 17
Means and Standard Deviations of Responses
by Managers of Sixteen Companies
to Item 13

Company	Mean	Standard Deviation
1	2.50	.57
2	4.00	.00
3	1.66	.57
4	2.40	.54
5	3.50	.70
6	3.50	.57
7	2.50	.57
8	3.50	.70
9	3.40	.54
10	3.00	.81
11	2.66	.57
12	3.00	.00
13	2.66	.57
14	3.66	.57
15	2.75	.50
16	1.00	.00

Response scale:

1 = To No Extent

3 = To Some Extent

2 = To Little Extent

4 = To a Great Extent

Table 18
Organizational Structure Scores

Company	Score	Classification
1	32.75	Mixed
2	33.33	Mixed
3	31.67	Organic
4	29.40	Organic
5	40.00	Mechanistic
6	33.00	Mixed
7	34.00	Mechanistic
8	40.00	Mechanistic
9	30.80	Organic
10	34.25	Mechanistic
11	32.33	Mixed
12	27.00	Organic
13	35.00	Mechanistic
14	37.00	Mechanistic
15	35.50	Mechanistic
16	33.50	Mixed

to be organic. Scores falling in the middle, or 32-33, were considered indicative of mixed structures.

Environmental Uncertainty

Responses to Items 16, 17, 18, 19 and 20 comprised the measure of environmental uncertainty. Likert-type scale values, ranging from 1 (To a Great Extent) to 4 (To No Extent) were pooled in the same fashion as were structure responses.

All company responses were considered indicative of uncertain environments. Scores ranged from 9.33 to 16.25, well within absolute numerical limits of instability values. It was not necessary to compute percentiles for this variable; no companies displayed means above 2.0. In fact, very few individual respondents disagreed with survey items indicating uncertain environments. Further discussion of the lack of differential data appears in the next chapter. Mean responses to environmental uncertainty items appear in Tables 19 through 25. The response scale for each item in these tables appears below:

1 = To a Great Extent	3 = To Little Extent
2 = To Some Extent	4 = To No Extent

Testing of the Hypotheses

It was hypothesized that organic structures would operate in uncertain environments and mechanistic structures in stable environments. Since all firms were judged to exist in uncertain environments, this hypothesis was obviously not supported.

Table 19
Means and Standard Deviations of Responses
by Managers of Sixteen Companies
to Item 16

Company	Mean	Standard Deviation
1	1.00	.00
2	1.66	.57
3	2.33	.57
4	1.40	.54
5	1.00	.00
6	1.25	.50
7	1.75	.95
8	1.00	.00
9	2.40	1.14
10	2.25	.95
11	2.33	1.52
12	1.66	.57
13	1.33	.57
14	1.00	.00
15	1.25	.50
16	3.50	.70

Table 20
Means and Standard Deviations of Responses
by Managers of Sixteen Companies
to Item 17.

Company	Mean	Standard Deviation
1	2.25	.95
2	2.66	.57
3	1.66	.57
4	2.40	.89
5	1.50	.70
6	2.75	1.25
7	2.25	.50
8	1.50	.70
9	2.60	.89
10	2.60	.89
11	3.00	1.00
12	1.33	.57
13	1.66	.57
14	1.66	.57
15	1.50	.57
16	2.00	.00

Table 21
Means and Standard Deviations of Responses
by Managers of Sixteen Companies
to Item 18

Company	Mean	Standard Deviation
1	2.25	.50
2	2.00	.00
3	2.00	1.00
4	1.80	.44
5	2.00	1.41
6	2.25	.50
7	2.25	.50
8	2.50	.70
9	2.60	.54
10	2.75	.50
11	1.66	.57
12	1.66	.57
13	1.33	.57
14	1.33	.57
15	1.50	1.00
16	1.50	.70

Table 22
Means and Standard Deviations of Responses
by Managers of Sixteen Companies
to Item 19

Company	Mean	Standard Deviation
1	1.75	.95
2	1.66	.57
3	1.66	.57
4	1.40	.54
5	1.00	.00
6	1.75	.50
7	1.75	.50
8	1.00	.00
9	1.60	.54
10	2.25	.95
11	1.33	.57
12	1.00	.00
13	1.33	.57
14	1.66	.57
15	1.00	.00
16	1.50	.70

Table 23
Means and Standard Deviations of Responses
by Managers of Sixteen Companies
to Item 20a

Company	Mean	Standard Deviation
1	2.00	.81
2	1.66	.57
3	2.33	.57
4	1.80	.44
5	2.50	.70
6	1.75	.50
7	1.50	1.00
8	1.50	.70
9	2.40	.54
10	2.25	.95
11	1.33	.57
12	2.00	1.00
13	1.33	.57
14	1.33	.57
15	1.00	.00
16	1.50	.70

Table 24
Means and Standard Deviations of Responses
by Managers of Sixteen Companies
to Item 20b

Company	Mean	Standard Deviation
1	2.50	1.00
2	1.66	1.15
3	2.33	.57
4	1.40	.54
5	1.50	.70
6	2.00	.00
7	1.50	.57
8	1.00	.00
9	1.80	.44
10	3.00	.81
11	2.00	1.00
12	3.00	.00
13	1.33	.57
14	2.33	.57
15	1.00	.00
16	2.50	.70

Table 25
Means and Standard Deviations of Responses
by Managers of Sixteen Companies
to Item 20c

Company	Means	Standard Deviation
1	1.75	.50
2	2.00	1.00
3	2.00	1.00
4	1.80	.44
5	1.50	.70
6	1.25	.50
7	1.50	1.00
8	1.50	.70
9	2.00	.70
10	2.00	.00
11	2.33	1.15
12	2.66	.57
13	1.00	.00
14	3.00	1.00
15	1.50	.57
16	2.00	.00

Table 26
Environmental Uncertainty Scores

Company	Score	Classification
1	13.50	Uncertain
2	13.33	Uncertain
3	14.33	Uncertain
4	12.00	Uncertain
5	11.00	Uncertain
6	13.00	Uncertain
7	12.50	Uncertain
8	10.00	Uncertain
9	15.40	Uncertain
10	16.25	Uncertain
11	14.00	Uncertain
12	13.33	Uncertain
13	9.33	Uncertain
14	12.33	Uncertain
15	8.75	Uncertain
16	14.50	Uncertain

The central purpose of this study was to determine whether a relationship existed between organizational structure and support for employee communication training programs. It was hypothesized that:

An organic organization (measured by employee perceptions of centralization, formalization, specialization and impersonalization on a 4-point scale) will show significantly more support for communication training than a mechanistic organization.

This hypothesis was supported. A correlation coefficient of .67 in the expected direction was obtained between the variables "level of support" and "structure." Multiple regression analysis, as shown in Table 27, computed with both "structure" and "environment" as independent variables and "support for training" as the dependent variable, showed structure as a significant predictor at the .01 level ($F=10.61$, $df=1, 13$).

Summary

Fifty-four managers representing 16 manufacturing firms provided responses to the organizational structure survey. Sixteen personnel directors furnished information concerning communication training programs at these firms, each supplying information about his or her firm. Of the 16 firms, four were characterized as organic, five as mixed and seven as mechanistic. Three of the organizations offered no programs in communication training for their employees. Eight were judged to offer minimum support, one

Table 27
Analysis of Structure and Environment
as Predictors of Training

Sample Size 16
Dependent Variable: COMM
Independent Variables: STR ENV
Coefficient of Determination 0.44944
Correlation Coefficient 0.67040
Estimated Constant Term -0.17014118E+39

Analysis of Variance
for the Regression

Source of Variation	DF	S. SQ	M.S.	F	PROB
Regression	2	7.97754	3.98877	5.306	0.0207
Residuals	13	9.77246	.751727		
Total	15	17.75000			

VAR.	Regression Coefficient	S. E. of REG. COEF.	F-Value DF (1, 13)	PROB	CORR. COEF. WITH COMM
STR	0.8742515	.2684	10.61	0.0062	0.6704
ENV	0.1701412E+39	.1165E-04	.1701E+39	0.0000	0.0000

was judged to offer moderate support and four were judged to offer strong support.

Regression analysis was computed with "structure" and "environment" as independent variables and "support for training" as the dependent variable. "Structure" was shown to be a significant predictor at the .01 level, while "environment" was shown to have no effect. A correlation coefficient of .67 between "structure" and "support for training" was obtained.

The hypothesis first stated, that organic structures would tend to function in uncertain environments, was not supported. Both mechanistic and organic structures were judged to be characterized by uncertain environments. The second hypothesis, stating that organic structures would tend to support communication training, was supported.

Table 28 summarizes the results of this study. The implications of these findings and suggestions for further research are discussed in Chapter V.

Table 28

Summary of Findings Showing Structure and Support
Designations for Each Manufacturing Firm

Company	Structure Score	Structure	Level of Support
1	32.75	Mixed	Non-existent
2	33.33	Mixed	Minimum
3	31.67	Organic	Strong
4	29.40	Organic	Strong
5	40.00	Mechanistic	Minimum
6	33.00	Mixed	Strong
7	34.00	Mechanistic	Minimum
8	40.00	Mechanistic	Minimum
9	30.80	Organic	Strong
10	34.25	Mechanistic	Minimum
11	32.33	Mixed	Minimum
12	27.00	Organic	Moderate
13	35.00	Mechanistic	Minimum
14	37.00	Mechanistic	None
15	35.50	Mechanistic	Minimum
16	33.50	Mixed	None

CHAPTER V

DISCUSSION

This chapter presents a summary of the study, conclusions reached as a result of the findings, and suggestions for further research.

Summary of the Study

Research conducted at the 16 small manufacturing firms included in this sample supported a hypothesis stating that organizational structures characterized by decentralized decision making processes, informal communication rules, personalized climates and low task specialization are more likely to support communication training. No support was found for the hypothesis stating that organic structures are more likely to operate in uncertain environments.

Conclusions

The importance of communication skill development has been voiced by high ranking managers in large corporations; since this research was conducted in small corporations, evidence that shared concern exists among managers of different-sized corporations is apparent. One of the most pleasing results of this research is that communication skill improvement received attention in small, regional businesses. Company size and visibility seemed to play no part in determining the likelihood of management providing resources for

programs. The literature reviewed in Chapter II concerning programs in communication training focused on industrial giants with verbal training programs in place.

Communication Training

Strongly supported programs were devoted primarily to improving employees' written communication skills. Technical and business forms of report writing and letter composition were mentioned most often by personnel directors overseeing these programs. Basic sentence structure and paragraph formation were also reported as topics of writing skills workshops.

In discussing program content with six of the training/personnel directors, two issues emerged often. First, the importance of needs assessment prior to workshop activities was stressed. Individual and group writing or speaking skill deficiencies should be diagnosed prior to workshop preparation. Two directors commented that canned, pre-packaged writing programs were often too general to be of use. When considering proposals for seminars in skill improvement, needs assessment must be incorporated into the program.

Secondly, directors expressed a need for communication workshop materials with specific applications for the type of industry or industrial division involved in training. One director responsible for arranging a one-day seminar in report writing for selected supervisors remarked that choosing a program leader proficient in "recommendation report" design was the key to his program's success. A point emphasized by all directors was that training programs of all

kinds were chosen with care and concern for value.

Productivity and Communication Training

The concern for value generates another question: Is there proof that communication training increases employee productivity? No research exists to date confirming that formal training in communication increases or improves productivity. Litterst and Eyo (1982) cite evidence that information dissemination and goal clarification increase productivity; the authors suggest that these provide indirect support for the justification of communication training.

But as Gibb (1973) declared:

Although in the most global sense it is fairly obvious that communication is related to productivity, it is very difficult to find satisfying evidence of clear relationships between specific communicative programs or acts, on the one hand, and measures of productivity, profit, or corporate vitality on the other. (p. 151)

A meaningful and accurate means of measuring the effects training has on productivity has still not been introduced.

Despite the lack of a quantifiable relationship between training and company health, directors of personnel in companies showing strong support for communication training indicated personal commitment to the importance of refined communication skills. Concern was often expressed that such skills received inadequate attention in colleges and universities. The general decline in new graduates' writing skills, for instance, was frequently mentioned. One director asserted that college instructors themselves could use training in written communication skills.

Organizational Structure and Support for Communication Training

The structure-support link demonstrated in this research provides insight into propositions of Tushman and Nadler (1978) and Hage, et al. (1971). Tushman and Nadler proposed that the mechanistic/organismic character of an organization's structure affects its information processing capacity. Presumably then, given the results of the present study, organic organizations are more cognizant of the importance of information processing capacities and take steps to improve them. Although the relationship between information capacity and communication skills of employees is indirect, it seems probable that managers representing organic firms are more aware of the link existing between communication transfer and communication skill.

Mechanistic organizations, on the other hand, may have little need to improve upon existing information processing capacities because they require less. The possibility also exists that managers representing mechanistic organizations are less aware of the link between information processing and communication skill. The results of this study tend to support the notion that mechanistic organizations simply experience less need for extended information processing capacities; most decisions are made by top management and travel downward.

According to Burns and Stalker's research (1961), mechanistic organizations have more tightly controlled communication pathways, typically vertical and downward; subordinates' communication skills

are not only less visible but less important to superiors.

Hage et al. (1967) found that a strong, positive relationship existed between the degree of participation in decision making and the frequency of scheduled and unscheduled communications: The less centralized the decision making processes, the more frequent the communications. The results of the present study provide additional support. Decentralized organizations were characterized by communication climates in which employees were encouraged to make suggestions to supervisors, discuss company affairs with co-workers and disagree with superiors. That communication training programs were strongly supported by these organic organizations lends further credence to the idea that decentralized structures reflect a greater awareness of communication as an important and integral part of company operations. The companies are willing to spend valuable resources developing and improving their employees' individual information processing capabilities.

Environmental Uncertainty

The most obvious explanation for lack of support for the first hypothesis, that structure would be associated with environmental stability, is that of depressed economic conditions. Michigan, in particular, has suffered from a sagging national economy affecting automobile and tandem industries considerably. However, Tosi and Carroll (1976) suggested a principle which could also give partial explanation: that smaller firms face volatile environments by virtue of their size. As firms become larger, according to Tosi and

and Carroll, they move toward stable markets and technologies. Thus, perceptions of environmental uncertainty decrease in proportion to company growth.

The manufacturing firms participating in this study each employed fewer than 1,000 individuals and could be designated "small." However, only one of the sixteen could be termed an "infant." The organizations studied were all well established, but small. Tosi and Carroll's proposition cited above implied that small companies evolving to large companies experience volatile markets and technologies. While size may affect employee perceptions of environmental uncertainty indirectly, it seems unlikely that this variable could significantly shape the perceptions of respondents in this study. A more plausible explanation remains the contamination by a recessionary economy of the independent variable "environment."

Still another possibility for the lack of a significant spread in environmental uncertainty scores is the sensitivity of measures used in this study. Measures were judged reliable, yet they may have been insensitive to environmental conditions. Because the measures suggested socially desirable responses, the face validity of these measures deserves to be reexamined.

Another point worthy of consideration concerns rapid technological change irrespective of economic conditions. Recent surges in the use of computer technology and information processing systems are affecting the smallest organizations. Just as the development of the transistor revolutionized electronics, the development of microcircuitry has made computers affordable to the smallest

businesses. The impact of technological innovation and change must be felt by the most stable, bureaucratic, mechanistic organizations. The results of this study could provide further support to the idea that no organization is immune to fast paced technological change. Stable, certain environments may become increasingly difficult to locate.

Recommendations and Suggestions for Further Research

Studies devoted to the following questions, arising from the results of this study, might contribute to both organizational and communication related literatures.

1. Can the environmental certainty-uncertainty continuum be considered a tenable, testable dimension in empirical research in light of the technological explosion occurring in our time?

2. What, if any, is the relationship between formalization indicators and indices of centralization in an organization? Literature extant in this area reports conflicting research results; the results of correlations computed in the present study suggested no clear relationship either. Perhaps the two variables require refinement or redefinition through further testing.

3. Can communication training be linked directly to improved productivity? Communication errors can produce measurable costs. Lost sales, for example, could be clearly attributed to faulty communication: a poorly written report, poor oral presentation to a potential client, or an impersonal business letter rife with grammatical mistakes. But ascertaining gains in sales due to clear

reports, persuasive presentations, and well written letters is a different matter. Separating the communication component from a plethora of intervening variables is, or has been, difficult indeed. While managers in firms which strongly support communication training appear to bank on the fact that improved skills will increase productivity, no research was found confirming this.

4. What attitudes are shared by managers in different organizational structures regarding the introduction of basic communication training into the company? Is there a relationship between managerial attitudes and certain aspects of organizational structure?

5. What impact will advanced telecommunications hardware and software have on the importance attached to traditional writing skills? Will the written word, and thus need for basic writing training, become less critical to organizational maintenance? Will oral communication skills increase in importance?

The questions generated by this study may provide answers critical to the future of communications training in industrial organizations. Communication training directors, in developing programs for business consumption, must be able to anticipate the character of the market as well as the relevance of their product. Recognizing that differences in approach to communication exist among various organizational structures is a good place to begin. Understanding the role that communication plays in an organization must follow. Finally, addressing specific organizational needs for communication training will depend upon careful analysis of information processing systems in place at company sites.

Research possibilities stimulated by this study include exploring the usefulness of the variables "environmental uncertainty" and "formalization." Establishing a causal link between communication training and productivity would also provide training directors with the justification they often need to pay for programs. Assessing managerial attitudes toward communication training could aid the personnel director as well as the communication training program consultant.

APPENDIX A
MANUFACTURING FIRMS PARTICIPATING IN THE STUDY

Allen Extruders
Zeeland, MI

Herman Miller, Inc.
Zeeland, MI

Allied Paper, Inc.
Kalamazoo, MI

Mead Products
Kalamazoo, MI

E. W. Bliss Company
Hastings, MI

Michigan Wheel
Grand Rapids, MI

Brundage Company
Kalamazoo, MI

Parker Hannifin
Otsego, MI

Clausing Corporation
Kalamazoo, MI

PRAB
Kalamazoo, MI

Fabri-Kal Corporation
Kalamazoo, MI

Rockwell Corporation
Allegan, MI

Hastings Aluminum Products
Hastings, MI

Stryker Corporation
Kalamazoo, MI

Hastings Manufacturing
Hastings, MI

Viking Corporation
Hastings, MI

APPENDIX B

**TRANSMITTAL LETTER ACCOMPANYING SURVEY
TO PERSONNEL DIRECTORS**

Western Michigan University
Kalamazoo, Michigan 49008

*College of Business
Department of Business Education
and Administrative Services*

Dear

Employee writing and reading skill improvement is a growing concern. As a professor of business communication and doctoral candidate in educational leadership, I am studying industry's response to communication skill deficiencies in these areas.

Your company was one of 30 organizations I selected in southern Michigan to determine the relationship between organizational structure and company support for communication training. Since my sample is relatively small, your participation would be extremely helpful.

Because I realize that your time is limited, the enclosed one-page instrument should not take more than a few minutes to complete. In return for your time, I would be happy to share both the results of this important study and information about communication skill development for employees with you, either personally or by letter. Responses will be kept in the strictest confidence; in fact, these instruments will be destroyed once data is gathered and coded for analysis.

Please write or call if you have any questions. My telephone number at Western is (616) 383-1907.

Thank you very much for your time and assistance.

Sincerely,

Roberta M. Supnick
312B West Hall
College of Business

ENCL

APPENDIX C
SURVEY FORM TO PERSONNEL DIRECTORS

1. Do you offer training in written and/or oral communication skills to company employees in any way?

_____ Yes _____ No

2. Do you offer tuition subsidies to employees for training in communication skills at educational institutions?

_____ Yes _____ No

3. Please describe the training programs in communication that you support:

- a. Employees participating: _____ Top management

_____ Middle management

_____ Sales personnel

_____ Clerical personnel

_____ Production personnel

_____ Other (Please specify _____)

- b. Approximate number of employees participating yearly in these programs:

_____ 1 - 25 _____ 26 - 50 _____ 51 - 100 _____ Over 100

- c. Number of contact hours per employee engaged in these programs:

_____ 1 - 9 hrs. _____ 10 - 14 hrs. _____ 15 or above hrs.

- d. How frequently are programs offered to employees?

_____ once a year _____ between 2 - 5 times a year

_____ more than 5 times a year

4. Could you estimate the percentage of the company's total budget devoted to personnel training and development?

_____ less than .5% _____ between .5 and 1% _____ 1% or more

5. Could you estimate the percentage of your training and development budget devoted to in- and/or out-of-house communication instruction?

_____ less than .5% _____ between .5 and 1% _____ 1% or more

APPENDIX D

TRANSMITTAL LETTER ACCOMPANYING SURVEY TO MANAGERS

Western Michigan University
Kalamazoo, Michigan 49008

*College of Business
Department of Business Education
and Administrative Services*

1 June 1982

Dear

Employee communication skill improvement is a growing concern for both businesses and colleges. As an instructor of business communication and doctoral candidate in educational leadership, I am studying industry's response to employee skill deficiencies in communication, particularly reading and writing skills. Your company was one of 30 healthy organizations I selected from southern Michigan to answer this question: What kind of organization offers training opportunities in communication to its employees?

Because I realize that your time is limited, the enclosed instrument designed to determine your company's organizational structure should not take more than a few minutes to complete. I've enclosed an additional instrument which may be completed by another manager of similar rank, should you decide that the study is worthy of your additional support. Your participation would be extremely helpful.

In return for your time, I would be happy to share both the results of this important study and information about communication skill development for employees with you, either personally or by letter. Responses will be kept in strictest confidence; in fact, these instruments will be destroyed once data is gathered and coded.

Please write or call if you have any questions. My telephone number at Western is (616) 383-1907.

Sincerely,

Roberta M. Supnick

ENCL

APPENDIX E
SURVEY FORM TO MANAGERS

Organizational Structure Survey Form

Please indicate the extent to which you agree or disagree with the following statements as they relate to your organization.

1. Supervisors have enough authority to handle the problems that come up in their work groups.

Strongly Agree 1 2 3 4 Strongly Disagree

2. Supervisors must get approval for certain decisions which they should be able to make alone.

Strongly Agree 1 2 3 4 Strongly Disagree

3. In this work group, most people have a voice in making decisions affecting our work.

Strongly Agree 1 2 3 4 Strongly Disagree

4. We are encouraged by top management to make suggestions about the work we do.

Strongly Agree 1 2 3 4 Strongly Disagree

5. Rules and procedures for communicating are developed as we go along.

Strongly Agree 1 2 3 4 Strongly Disagree

6. There are rules and procedures for handling any kind of problem which might arise in our work.

Strongly Agree 1 2 3 4 Strongly Disagree

7. To obtain the information needed to do our jobs, it is usually necessary to go through the proper channels.

Strongly Agree 1 2 3 4 Strongly Disagree

8. The same rules and procedures are usually followed when problems arise from lack of information needed to do our jobs.

Strongly Agree 1 2 3 4 Strongly Disagree

9. There is usually a mix, in terms of job levels and functions, of employees present at a regular meeting of our work group.

Strongly Agree 1 2 3 4 Strongly Disagree

10. The organization works to a written law.

Strongly Agree 1 2 3 4 Strongly Disagree

11. How much variety in tasks, assignments or things to do is there generally in a normal working week in your work group?

_____ none _____ very little _____ some _____ a great deal

12. Employees feel free to discuss company affairs with co-workers.

To a great extent 1 2 3 4 To no extent

13. To what extent do people in your work unit do about the same job in about the same way most of the time?

To a great extent 1 2 3 4 To no extent

14. We are encouraged to speak our minds, even when disagreeing with top management.

To a great extent 1 2 3 4 To no extent

15. Our careers are regarded as important as the well being of the firm.

To a great extent 1 2 3 4 To no extent

Every organization is surrounded by other organizations, a community, changes in market and technological conditions. These represent the environment. Please indicate the extent to which the following statements are true for your organization and its environment.

16. To what extent does your organization have to take a lot of information about competitors into account in making decisions?

To a great extent 1 2 3 4 To no extent

17. To what extent is it difficult to assess the effectiveness of plans and decisions before they are implemented?

To a great extent 1 2 3 4 To no extent

18. To what extent does your organization seem to face rapid changes in factors which influence plans?

To a great extent 1 2 3 4 To no extent

19. To what extent have changes in market conditions been significant over the past 5 years?

To a great extent 1 2 3 4 To no extent

20. How significant have changes in technology been in the past 5 years for

Product Design? ☐ very significant
 ☐ somewhat significant
 ☐ of little significance
 ☐ of no significance

Production? ☐ very significant
 ☐ somewhat significant
 ☐ of little significance
 ☐ of no significance

Marketing? ☐ very significant
 ☐ somewhat significant
 ☐ of little significance
 ☐ of no significance

21. To what extent are ad hoc study groups formed to consider possible innovations which might benefit the firm?

To a great extent 1 2 3 4 To no extent

Thank you for devoting your time as a participant in this research. Your responses are greatly appreciated and will, of course, be treated confidentially.

APPENDIX F

ENCLOSURE ACCOMPANYING SURVEYS TO MANAGERS

Why it pays to teach Dick and Jane to read and write better

AT&T employees learn how to spruce up their writing skills from Al Joseph, president of the Lockwood/Walton Institute.

"gobbledygook," the writing in the typical company may be just as bad and the mistakes just as costly.

back to the report but easy to place the blame elsewhere. A technician mis-
understands a written procedure and
commits a costly error as a result. An
executive can't understand a project
report and puts off studying it until

the project falls behind schedule. In both cases, muddled writing was the real culprit.

Lost sales. Mistakes are only one consequence of poor business writing. Your company may lose sales if customers cannot understand your written proposals, or if the writing creates an unfavorable impression.

our contact with other business people through writing; therefore, our impression of others (and theirs of us) is created by writing. Capable and cooperative employees may create

Reading training

Reading difficulties experienced and documented by the Navy are similar to those encountered in business and industry. Thirty-one percent of 32,322,000 high school graduates tested in the Navy Recruit Training Center at San Diego, CA, read below the 10th grade level. According to Vice Admiral James Watkins, chief of naval personnel in Washington, DC, those recruits with poor reading skills are more likely to be dissatisfied, frustrated, and lack of promotional opportunity, and tempted to desert.

Another, and perhaps more significant, problem is poor performance, which often leads to disastrous and costly mistakes, maintains Willems. He cites the example of a petty officer with a reading disability who caused \$250,000 worth of damage because he couldn't clearly understand instructions. Consequently, parts were installed backwards during a routine maintenance rebuilding project.

Recognizing the importance of reading, the Navy has increased its emphasis on reading skills in its recruitment program. The Navy has implemented remedial reading programs at all recruitment centers. Incoming recruits are tested, and those reading below the third-grade level are recommended for discharge. Those reading at a fifth-grade level or above go on to boot camp. Recruits reading above 10th grade and below the sixth-grade level stay at the center for about a month. The program includes phonics, English as a second language, spelling, sentence taking, sentence construction and speed reading. In addition to oral

Continued on page 34

Continued on page 34

ing and comprehension skill building. So far the program seems to work. About 80% of those who are graduated from the remedial course go on to complete boot camp successfully.

Organizations fortunate enough not to have employees with reading problems are also sponsoring reading training—but for a very different reason. They hope to increase reading

ing skills has its payoff on the corporation's bottom line. Research indicates that a large portion of an employee's salary is paid for reading. Flunziow that an average of one-third

of all salaries is allocated for reading time and assuming that you have at least 10 employees earning \$12,000 per year, you are spending \$10,000 a year to buy reading time. Obviously, if employees can be taught to read and comprehend at a faster rate, more time can be spent on other job functions, such as tackling, solving, and preventing problems.

When shopping around for a speed-reading program for your organization, it's important, of course, to consider how the program's objectives, price, scheduling and format meet your needs. As with any program that

claims it can train you to do something faster and better, ask to see test results or validation studies before you sign the check. Methods of increasing adult reading speed have received considerable attention for more than 50 years, and numerous investigations have been made to determine if various reading-rate improvement techniques are effective.

An example of such a study is the one conducted by the University of Wisconsin on the Time-Life video telescreen-reading program with residents living in the Madison, WI, area. Forty-seven of the subjects in the study were business professionals, ranging from salespeople to chief executives. All of them took the course to

improve their professional reading habits. At the beginning of the course, the average participant's reading speed placed him in the 99th percentile of the Nelson-Denny profile of reading achievement, meaning that he read faster than 99% of all the people tested in a national sample. By the end of the course, his reading speed had more than doubled and landed him squarely in the 99th percentile, the maximum grouping attainable. Slight gains in vocabulary were also attained.

APPENDIX G
FOLLOW-UP NOTES SENT TO ALL PARTICIPANTS

Thank you for a prompt and informative response to the organizational structure survey instrument. An interpretation of your company's profile as well as final study results will be forthcoming late this summer. Your assistance was critical to this research and very much appreciated.

Thank you for a prompt and informative response to the communication training program survey. An interpretation of study results will be forthcoming late this summer. Your assistance was critical to this research and very much appreciated.

APPENDIX H
CORRELATION MATRIX FOR ALL STRUCTURE ITEMS

Item No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	21
1	x															
2	.35	x														
3	.55	.25	x													
4	.71	.44	.50	x												
5	-.21	-.17	-.01	-.22	x											
6	-.33	-.15	-.18	-.30	.39	x										
7	-.08	.21	-.21	-.08	.03	.09	x									
8	-.15	-.12	.16	-.06	.05	.30	.16	x								
9	.42	.09	.24	.49	.01	-.28	-.14	-.12	x							
10	-.24	-.29	-.19	-.32	.33	.48	.19	.15	-.12	x						
11	.05	.02	.19	.13	.17	-.16	.28	.22	.01	.10	x					
12	.06	.07	.20	.22	-.10	-.15	.38	.20	.07	.07	.06	x				
13	-.19	.27	-.20	.10	.12	.21	.39	.03	-.29	.15	.40	-.16	x			
14	.53	.34	.38	.64	-.01	-.21	.03	-.05	.28	-.05	.04	.28	-.11	x		
15	.62	.12	.25	.63	-.09	-.39	-.06	-.27	.33	-.19	.12	.16	-.19	.63	x	
21	.34	.15	.35	.42	-.21	.46	-.03	.05	.28	-.38	.11	.15	-.09	.29	.29	x

BIBLIOGRAPHY

- Addams, H. H. Should the Big 8 teach communication skills?
Management Accounting, 1981, 62(11), 37-40.
- Adkins, L. Business teaches the three r's. Dun's Review, 1981,
118(2), 48-53.
- Allen, T. H. Communication networks: The hidden organization chart.
The Personnel Administrator, 1976, 21(3), 31-35.
- Brown, W. B. Organizational and information coupling in technological
innovation. Proceedings of the Academy of Management, 1975,
478-480.
- Burns, T., & Stalker, G. M. The management of innovation. London:
Tavistock Publications, 1961.
- Conrath, D. Communications environment and its relationship to
organizational structure. Management Science, 1973, 20(4),
586-603.
- Denton, L. W. In-house training in written communication: A status
report. Journal of Business Communication, 1979, 16(3), 3-14.
- Deutsch, K. W. The nerves of government. Glencoe: Free Press,
1963. In R. Duncan, The effects of perceived uncertainty on
organizational decision unit structure: A cybernetic model
(Doctoral dissertation, Yale University, 1971). Dissertation
Abstracts International, 1971, 32, 1638A. (University Microfilms
No. 71-22, 136)
- Duncan, R. Characteristics of organizational environments and
perceived environmental uncertainty. Administrative Science
Quarterly, 1972, 17(3), 313-327.
- Duncan, R. The effects of perceived uncertainty on organizational
decision unit structure: A cybernetic model (Doctoral disser-
tation, Yale University, 1971). Dissertation Abstracts Inter-
national, 1971, 32, 1638A. (University Microfilms No. 71-22, 136)
- Evan, W. Indices of hierarchical structure of industrial organiza-
tion. Management Science, 1963, 9(3), 468-478.
- Galbraith, J. Organization design: An information processing view.
Organization Design. Reading, MA: Addison-Wesley, 1977.

- Gibb, J. Communication and productivity. Readings in organizations. Dallas: Business Publications, Inc., 1973, p. 151. In J. Litterst and B. Eyo, Gauging the effectiveness of communications programs. Journal of Business Communication, 1982, 19(2), 15-26.
- Grinyer, P., & Tasai, Ardekani, M. Dimensions of organizational structure: A replication. Academy of Management Journal, 1980, 23(3), 405-421.
- Hage, J., & Aiken, M. Relationship of centralization to other structural properties. Administrative Science Quarterly, 1967, 12(6), 72-92.
- Hage, J., Aiken, M., & Marrett, C. Organization structure and communications. American Sociological Review, 1971, 36(5), 860-871.
- House, R., & Rizzo, J. Toward the measurement of organizational practices: Scale development and validation. Journal of Applied Psychology, 1972, 56(5), 388-396.
- Huber, G. O'Connell, M., & Cummings, L. Perceived environmental uncertainty: Effects of information and structure. Academy of Management Journal, 1975, 18(4), 725-740.
- Lawrence, P. R., & Lorsch, J. W. Organization and environment. Boston: Harvard University Press, 1967.
- Litterst, J., & Eyo, B. Gauging the effectiveness of communication programs. The Journal of Business Communication, 1982, 19(2), 15-26.
- Lorsch, J. W. Introduction to the structural design of organizations. In G. W. Dalton, P. R. Lawrence, & J. W. Lorsch (Eds.), Organizational structure and design. Homewood, IL: Richard D. Irwin, Inc., 1970, 1-16.
- March, J. G., & Simon, H. A. Organizations. New York: John Wiley and Sons, 1958.
- Mundale, S. Why more CEOs are mandating listening and writing training. Training, 1980, 17(10), 37-39.
- Perrow, C. Complex organizations. Glenview, IL: Scott, Foresman and Co., 1972.
- Pugh, D., Hickson, D., Hinings, C., Macdonald, K., Turner, C., & Lupton, T. A conceptual scheme for organizational analysis. Administrative Science Quarterly, 1963, 8(7), 289-315.

- Rogers, E. M., & Rogers, R. A. Communication in organizations. New York: Macmillan Publishing Co., 1976.
- Stech, E. Communication in organizations. Unpublished manuscript. Department of Communication Arts and Sciences, Western Michigan University, Kalamazoo, MI, 49007.
- Tosi, H., & Carroll, S. Management: Contingencies, structure, and process. Chicago, IL: St. Clair Press, 1976.
- Tushman, M. L., & Katz, R. External communication and project performance: An investigation into the role of gatekeepers. Management Science, 1980, 26(11), 1071-1085.
- Tushman, M. L., & Nadler, D. A. Information processing as an integrating concept in organizational design. Academy of Management Review, 1978, 3(3), 613-624.
- Walton, E. The comparison of measures of organization structure. Academy of Management Review, 1981, 6(1), 155-160.
- Whalen, T. Techniques for developing an effective in-house course in business and technical writing. American Business Communication Association Bulletin, 1980, 43(3), 27-28.
- Why it pays to teach Dick and Jane to write better. Training, 1978, 15(3), 34-36.
- Woodward, I. Management and technology. London: Her Majesty's Printing Office, 1958. In R. Duncan, The effects of perceived uncertainty on organizational decision unit structure: A cybernetic model (Doctoral dissertation, Yale University, 1971). Dissertation Abstracts International, 1971, 32, 1638A. (University Microfilms No. 71-22, 136)