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Coan, Robert Thomas

A FIELD-EXPERIMENTAL STUDY OF THE RELATIONSHIP BETWEEN OPPORTUNITY FOR UPWARD COMMUNICATION AND FACETS OF JOB SATISFACTION

The Ohio State University

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A FIELD-EXPERIMENTAL STUDY OF THE RELATIONSHIP BETWEEN OPPORTUNITY FOR UPWARD COMMUNICATION AND FACETS OF JOB SATISFACTION

DISSERTATION

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

By

Robert Thomas Coan, B.A., M.A.

* * * * *

The Ohio State University 1984

Reading Committee: Approved By

Keith Brooks
John Dimmick
Victor Wall

Advisor

Department of Communication
In memory of my Grandfathers
ACKNOWLEDGEMENTS

I want to express my appreciation to those who supported me through my studies: My love, Sue; my mother and father, Mr. and Mrs. James Coan; My brother, Tim; my grandparents, Mr. and Mrs. Robert West and Mr. and Mrs. Guy Coan; my advisor and friend, Keith Brooks; my professors and friends John Dimmick and Vic Wall; all my classmates, especially Jack Yeager, Don Yoder and Sam Wallace. I learned something unique, important and lasting from each of them.
VITA

August 12, 1957 . . . . . . . . . . . Born, Ft. Wayne, Indiana
1979 . . . . . . . . . . . . . . . . . B.A., Ohio State University
1981 . . . . . . . . . . . . . . . . . M.A., Ohio State University

FIELD OF STUDY

Organizational Communication
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CHAPTER ONE

Purpose and Rationale

An area of particular interest to students of organizational communication has been the directionality of message flow and the correlates of downward, upward and horizontal message flow in the organizational hierarchy. While each of these three message directionalities has generated a significant body of literature, there has been a particular emphasis on upward communication. According to Koehler, Anatol and Applbaum (1981), "The remarkable variety and force of influences that tend to lead to the transmission or distortion of information moving upward in organizations has provided one of the most fruitful areas of modern organizational research" (p. 91).

One major thrust in the upward communication literature might best be described as testimonials for the value of upward communication, especially in terms of its ability to increase employee morale/satisfaction. While this hypothesized relationship between upward message flow and work related attitudes seems to be generally agreed upon in both practitioner and academic sources, there is a conspicuous lack of empirical validation of upward communication's ability to cause beneficial work related outcomes. In addition to this weakness in the literature specific to upward communication, the organizational communication literature, in general, has been characterized as
exploratory and deficient in hypothesis testing (Porter and Roberts, 1976).

Considering these points, the purpose of this study is to experimentally test in a field setting the hypothesized positive relationship between employee opportunity for upward communication and employee satisfaction.

Before proceeding, it will be valuable to clarify the communication interactions being referred to by the term upward communication. While the term is widely used, its meaning is seldom examined. In this study, upward communication is defined as those messages sent by a focal person in a given organizational authority hierarchy to another person one or more reporting levels higher in the chain of command to which the focal person belongs.

Goldhaber (1979) provides a common-sense definition of upward communication consistent with the contexts in which the term is commonly used: "messages which flow from subordinates to superiors...usually for the purpose of asking questions, providing feedback and making suggestions" (p. 137).

Rationale

The rationale for this study is based on three areas of emphasis in the organizational literature: 1) articles describing positive organizational outcomes (particularly job satisfaction) resulting from upward communication, 2) empirical studies indicating a negative relationship between job satisfaction and employee absenteeism/turnover, and 3) articles arguing for research addressing specific communication interventions and their efficacy.
First, regarding the positive outcomes associated with upward communication, there is a significant body of advocacy literature stemming from the early 1950s to the present. Although its origins are not perfectly clear, there seems to be a mythology operating in which upward communication is depicted as a provider of numerous organizational benefits. In the practitioner oriented literature, Planty and Machever (1952) attribute to upward communication the ability to provide organizational rewards such as:

1) Management gets an improved picture of the work, accomplishments, problems, plans, attitudes, and feelings of subordinates at all levels.
2) Before becoming deeply involved, management spots individuals, policies, actions, or assignments that are likely to cause trouble.
3) By helping lower echelons of supervision to improve their selection of those things that are to be communicated upward, management gets the lower echelons to do a more systematic and useful job of reporting.
4) By welcoming upward communication, management strengthens the only device for tapping the ideas and help of its subordinates. This gives management a better answer to its problems and eases its own responsibility.
5) By opening the channels upward, management helps the easy flow and acceptance of communication downward. Good listening makes good listeners (p. 304-319).

Vogel (1967) states that upward communication culminates in "an economic payoff in the form of profitable new ideas and ways of doing things" (p. 23), while Driver (1980) believes that "upward communication will accomplish more than simply preventing a great deal of managerial isolation. Good communication fosters esprit de corps and makes a smooth-working team out of employees at all levels of the organization" (p. 25). Similarly, Cuttip and Center (1981) argue
that "the most pressing need is for more adequate upward communications, a management that operates from the bottom up" (p. 314).

In addition to the emphasis on organizational benefits, the practitioner literature has also noted benefits to individuals such as improved attitude, satisfaction of the basic human need to express ideas and release of emotional tension (Planty & Machever, 1952; Driver, 1980).

In turn, textbooks on organizational communication, devoting large sections to upward communication, make statements such as, "The existence of upward communication provides several immediate and important rewards" (Koehler et al., 1981, p. 93); "Upward communication has the effect of improving morale and employee attitude" (Goldhaber, 1979, p. 137) and "Upward communication provides an important integrative function by giving the employee a sense of participation and involvement in the organization" (Downs, Linkugal and Berg, 1977, p. 28). However, in examining the warrant for these claims, it can be seen that they are sometimes unsupported and other times supported largely by citing the other textbooks, general theoretical works or the practitioner literature.

In contrast, a review of the upward communication literature looking specifically for data based articles on the relationship between upward communication and job satisfaction revealed only two studies where upward communication and job satisfaction were explicitly measured and interrelated (Marrett, Hage & Aiken, 1975; Muchinsky, 1977) and in each case job satisfaction and upward communication were only part of a larger, correlational design. The
Marrett et al. study indicated a negative relationship between frequency of upward communication and job satisfaction while the Muchinsky study found only a weak positive relationship between percentage of time engaged in upward communication and satisfaction with supervision. It seems clear that the body of literature describing upward communication as a stimulant of job satisfaction is based on insufficient empirical evidence.

While a precise explanation for this condition is not available, some perspective can be gained by looking at the theoretical underpinnings of the literature. A problem encountered in doing this is that the upward communication literature is lacking in explicit discussions of theoretical background or claims of allegiance to a given school of organizational thought. However, by examining the foci of the major schools of organizational theory and the foci of the upward communication literature it is reasonable to discuss a conceptual fit between the human relations school and the upward communication literature.

A major factor distinguishing the human relations school from other theoretical schools is its focus on intraorganizational human interactions and the effects of these interactions on organizational outcomes. In particular, human relations theorists like McGregor (1960) and Likert (1961, 1967) emphasized the notion of participative leadership and its effects on variables like motivation and job satisfaction. Although the human relationists are not very specific when discussing the role of communication in the participative management framework, much of the upward communication literature
uses the concept of participation to help explain relationships between upward communication and outcome variables.

Porter and Roberts (1976), speaking in more general terms about the organizational communication literature, note that human relations concepts have generated research and theoretical interest in the relationship between communication variables and concepts such as leadership style and motivation. If the upward communication literature is a product of authors interested in the relationship between communication and human relations theory, then an explanation for the literature's prescriptiveness (minus empirical evidence) lies in the prescriptive, universalistic character of the human relationist writings. Beginning with Mayo (1933) and continuing up through Likert (1967), the human relationists have promoted concepts such as team-work and participation, billing them as factors leading to organizational improvements irrespective of organizational context. For example, Likert states that:

In system 4 (participative) organizations...the principle of supportive relationships is applied and group methods of decision making are used in a multiple overlapping group structure. These two variables lead...to intervening variables such as...excellent communication....These and similar intervening variables in turn lead to low absence and turnover (1967, p. 138).

If the upward communication literature is based on the human relation's premise that anything that increases participation is beneficial, then the presentation of upward communication as a self-evident good can be more easily understood.
Many theorists working in the organizational communication area take issue with the practice of making universalistic assumptions about variables in organizational study (Grunig, 1975; Schuler, 1979; Porter & Roberts, 1976; Roberts and O'Reilly, 1979). In each case, they posit that moderating factors such as role perceptions, organizational level and organizational structure will differentially affect communication and outcome variables depending on the situation. They see the human relationists as failing to account for important organizational contingencies in their prescriptions. As Grunig (1975) puts it, the "human relations theorists tasted the water in the oasis (communication) and liked it so much that they ran off to extol its virtues to every manager in sight without bothering to develop a theory that would be useful to managers" (p. 100).

While the failure of the human relationists to account for situational factors is valid criticism, the groundwork is only now being laid for empirically validating more complex contingency theories of organizational communication. Roberts and O'Reilly (1979) state, "Clearly, theories relevant to communication in organizations cannot be developed until facets of organizational communication are specified and some of their correlates identified. Such mapping procedures have not been carried out" (p. 42). Accordingly, this study proceeds from the perspective that assessing the relationship between upward communication and its presumed outcome of job satisfaction represents an important mapping procedure. This mapping function, combined with the sustained interest in the relationship between upward communication and outcome variables found
in the literature, makes the variables worthy of more critical study.

Regarding the second area of emphasis in the literature, a widely accepted, long-standing body of research has indicated a negative relationship between job satisfaction and absenteeism and turnover. Reviews of the job satisfaction-absenteeism/turnover literature by Brayfield and Crockett (1955), Locke (1975), Porter and Steers (1973) and Vroom (1964) report that satisfaction-absenteeism/turnover correlations have been significant and consistent across studies. According to Greene and Craft (1979), "The force exerted on an employee to remain on the job is an increasing function of the valence of the job. Thus, satisfaction should be negatively related to absenteeism and turnover, and at the empirical level, it is" (p. 271).

Since there is interest in the association of upward communication and job satisfaction, it is important to note that any changes effected in job satisfaction via altered upward communication perceptions may also affect other organizational outcome variables such as absenteeism and turnover. This mediated relationship between upward communication and turnover is implied in the literature (Management Review, 1982).

Regarding the third area of emphasis in the literature, there is a call for studies assessing the effects of specific communication interventions on outcome variables. As Porter and Roberts (1976) note in their review of the organizational communication literature, most of the research to date has been exploratory with little emphasis on hypothesis testing. While descriptive research should
certainly have a place in the literature, there seems to be growing sentiment that organizational communication research results should go beyond statements of the importance of an effective communication system and should begin to identify "factors likely to improve work climates" (Marrett, Hage & Aiken, 1975).

Toward that end, some authors are beginning to promote the idea that organizational communication can be improved not only by improving individuals' communication skills, but by making changes in the structure of the formal organizational communication system. Marrett et al.'s (1975) study of health and welfare agencies suggested to them that "deliberate efforts can be made to create organizations with good human relations; top administrators need not wait for communication channels to develop from below" (1975, p. 621). Gruber (1977) is consistent with Marrett et al. in his discussion of communication interventions:

Definitive treatment (of organizational disorders) is based on intervention in the communication pathways of the system. The goal is to achieve more functional transmission of information in support of the job....By modifying the logistics of information transfer, a new state of the system is produced.... The emphasis is on technical changes--'technical' meaning explicit, conscious, and easily described procedures...Such small, technical interventions in the communication process can ultimately produce far-reaching changes in the organization (p. 520).

In addition to this emphasis in the academic literature, the practitioner literature is clearly geared toward examination of specific communication intervention programs and their relative
In summary, the purpose of this study is to experimentally test the hypothesized positive relationship between opportunity for upward communication and employee satisfaction in a field setting. The rationale is derived from the established body of literature indicating academic and business interest in upward communication.

In general, interest has focused on the correlates of upward communication, often culminating in weakly supported statements of causality between upward communication and its correlates such as job satisfaction. The relationship should be more systematically tested. Further, this study is a response to the need described in the literature for research assessing specific communication interventions in terms of their impact on individual and organizational outcome variables.

Overview

In the following chapter, the study's hypotheses will be presented along with the relevant background literature. In chapter three, the research design, procedures, data gathering instruments and host organization will be described. In chapter four, the results of the study will be presented. In chapter five, the study will be summarized, conclusions drawn and recommendations made.
CHAPTER TWO

Hypotheses and Supporting Literature

The purpose of this chapter is to present the two main hypotheses to be tested in this study along with their supporting literature. The hypotheses will be presented, the communication treatment will be detailed, then each hypothesis will be discussed in terms of its background in the literature.

Hypotheses

Hypothesis one: Instituting a formalized upward communication program will be associated with increased satisfaction with upward communication.

Hypothesis two: Instituting a formalized upward communication program will be associated with increased satisfaction with work and supervision.

Before discussing the literature background, it will be valuable to have an understanding of the nature of the upward communication program. Models for the program are described in the practitioner literature (International Business Machine, 1969; Personnel, 1982). The essential components of the program are as follows: Forms with headings indicating that they are for sending information to a focal decision maker were made available to employees. Those who wanted to direct information to that decision maker specified the nature
of their information (suggestion, question, comment) and the information itself on the form. At the bottom of the page, the employee filled in name and home address and indicated whether or not anonymity was desired. The forms were then either delivered in person or sent via in-house mail to the upward communication program coordinator. The coordinator's role was to see that the focal decision maker got the employee information by scheduling meetings for that purpose. In those meetings, the coordinator ascertained the decision maker's response to the employee information, typed it and returned it to the employee. If the employee had requested anonymity; his/her name was not revealed by the coordinator and the response was sent to the employee's home address.

**Hypothesis one.** Hypothesis one proposed that the upward communication program will be associated with increased satisfaction with upward communication. It is based on the following four-part rationale: 1. subordinates desire opportunity for upward communication with their superiors; 2. opportunity for upward communication is attenuated by several organizational factors; 3. a difference between perceived current level of opportunity for upward communication and desired level is dissatisfying; and 4. the upward communication program removes some of the factors attenuating perceived opportunity to communicate upward.

Regarding the first point, a direct indication of subordinate desire for upward communication was found in Vogel (1967). In that study, 265 engineers and scientists, 499 white collar employees and 1,049 hourly employees across eight diverse organizations were asked
in a questionnaire survey for some of their perceptions about the climate for upward communication in their organizations. The results indicated there was a widespread desire for upward communication in all employee groups surveyed.

The desire to be heard is, as one would expect, widespread among employees. In quantified terms, about 90 percent of the employees say that it is "very" or "fairly" important to them to be able to discuss their ideas about work problems with higher management (people above their immediate boss). Job occupation or sex makes little difference: the desire is as strong in the production worker as in the engineer or clerical employee, and it is as strong among women as among men (Vogel, 1967, p. 19).

Another indication of employee desire for opportunity for upward communication was found in Berkowitz and Bennis (1961). In that study, 90 nurses were asked to list one to five subordinates, one to five peers and one to five superiors with which they had contact. For each person named, the respondent designated frequency of contact, who usually initiated contact, usual subject matter as well as importance of the contact and level of satisfaction with the contact (using five-point Likert-type scales). Their analysis showed that 1. over 60% of the sample designated contacts with superiors as being of "utmost" or "great" importance, 2. an employee's satisfaction with an episode was positively related to the other's hierarchical level and 3. superior contacts were significantly more important than either peer or subordinate contacts.

Regarding the second point, evidence that upward communication may be attenuated was found in Lawler, Porter and Tennenbaum (1968)
and Berkowitz and Bennis (1961). In the Lawler et al. study, work interactions of 105 middle and lower level managers in two types of firms (manufacturing, service) were examined using self-report forms. The managers recorded factual and attitudinal data about their at-work interactions over a five day period. The two main research questions were, "Does the initiator of an interaction feel more positively about the episode than does the recipient?" and "Does the superior or the subordinate feel more positively about the interaction episode between the two?" (p. 433).

Interactions were described by respondents in terms of time of day, modality (e.g. telephone, letter, discussion), other's position (superior, subordinate), type of content (e.g., production, sales, personnel), who initiated the contact (self, other) and attitudes toward the episode (five Likert-type dimensions). The mean number of completed forms for each manager for the five days was 41.8.

In the first part of the analysis, mean attitude scores for self-initiated and other-initiated interactions were compared with self-initiated interactions being consistently and significantly more positively rated by respondents. In the second part of the analysis, mean attitudes toward interactions with superiors and interactions with subordinates were compared with interactions with superiors being rated more favorably by a significant majority of managers. Combining these results, it was posited by Lawler et al. that self-initiated interactions with superiors would be the most highly evaluated of all possible interaction combinations. This was
subsequently confirmed by analysis of the mean scores for the four types of interactions (self-initiated with superior, self-initiated with subordinate, superior-initiated with self, subordinate-initiated with self). The highest mean was for self-initiated with superior interactions while the lowest was for subordinate-initiated with self interactions.

To further test the veracity of their conclusion, Lawler et al. identified 44 interactions for which a self-report form was completed by both the superior and subordinate parties involved in a given interaction. Sign tests were computed between the responses of each pair and proved to be significant at the .05 level. Initiators felt more positive toward interactions than did recipients; subordinates felt more positive toward interactions than did superiors.

In explanation of their results, Lawler et al. posited that employees most value self-initiated interactions because 1. the initiator has the most control, 2. the initiator would not institute a contact if he/she did not think it worthwhile and 3. the initiator should feel more responsible for an interaction taking place and therefore be less likely to describe it negatively. Addressing their second finding, they posited that employees most value interactions with superiors because superiors have reward power making the interaction a more significant event for the subordinate.

Combining the two explanations, they concluded a situation may be created where superiors, in superior-subordinate contacts, communicate their undervaluation of the subordinate initiated contact.
"In effect, the subordinate is not likely to be reinforced (sufficiently) for initiated communications and may very well decide that it is not worth coming to his boss with information, since his boss is not really interested" (p. 438).

The results of the Berkowitz and Bennis (1961) study described earlier provided some confirmation of Lawler et al.'s conclusion. Their analysis of the questionnaire responses of 90 nurses produced the following significant relationships: 1. the frequency with which a focal person in an organization initiates interactions is inversely related to the other's hierarchical status; 2. the frequency of contact between a focal person and another is inversely related to the other's hierarchical status; and 3. the importance and satisfaction of an interaction for a focal person is positively related to the other's hierarchical status. Drawing these findings together, Berkowitz and Bennis concluded:

Taken as a whole, the relationships between various dimensions of interactions and the hierarchical position of the other person seem to highlight an inherent problem of organizational life. From the (subordinate's) point of view, interactions with superiors are perceived as most important and among the most satisfying. Yet these are the most infrequent and even more importantly the ones which the (subordinate) can initiate least. Interactions with subordinates are among those most easily initiated and the most frequent, but they are the ones which are seen as least important and least satisfying. The relationships, then, are less satisfying to (subordinates) than they might be if the interaction patterns were changed. Yet, because of the inability to initiate interaction in a more satisfying direction, change becomes extremely improbable (p. 49).
Summarizing thus far, studies by Vogel (1967), Lawler, Porter and Tennenbaum (1968) and Berkowitz and Bennis (1961) indicated that employees do desire the opportunity to communicate upward but there may be impediments to that opportunity.

Using Lawler's (1973) perspective, dissatisfaction with a facet of a job can be viewed as a difference between perceived current status and perceived ideal status. It follows that removing impediments to and/or negative sanctions against upward communication would be associated with increased satisfaction with upward communication.

In an attempt to develop an operational description of upward communication impediments, texts, theoretical pieces, research studies and practitioner literature were reviewed with an eye toward discussions/presentations of upward communication impediments and breakdowns. The categories of upward communication impediments resulting from that review are presented in Table 2.1.

Looking at the upward communication program in terms of its ability to remove the impediments gave some clue as to its potential for affecting satisfaction with upward communication.

Taking the impediments in the order presented in Table 2.1, it seemed that the program could remove the first impediment (lack of management solicitation of input) because the institution of the program might represent to subordinates a concrete request for input.

In part, the second impediment (upward communication not a clear part of the work role) could be removed by the program by way
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<td>2) Subordinates don't see upward comm. as part of work role/management</td>
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<td>lacks communication management isn't interested in upward comm.</td>
<td>Davis (1972)</td>
<td>no data cited</td>
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<td>3) Lack of trust in superior/subordinates fear expressing true feelings</td>
<td>Downs et al. (1977)</td>
<td>field survey</td>
</tr>
<tr>
<td>4) Subordinates desire promotions</td>
<td>Driver (1980)</td>
<td>no data cited</td>
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<tr>
<td>5) Lack of mechanism for getting problems to management quickly</td>
<td>Work (1962)</td>
<td>field survey</td>
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<tr>
<td>6) Management doesn't listen</td>
<td>Davis (1976)</td>
<td>no data cited</td>
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<td></td>
<td>Driver (1980)</td>
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TABLE 2.1 (continued)

7) Management doesn't respond/
take action on employee
take action on employee
input

8) Management communicates
disinterest in employee
disinterest in employee
input

9) Tall organizational
structure/physical distance

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<td>on employee input</td>
<td>Planty &amp; Machever (1952)</td>
<td>practitioner opinion</td>
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<td></td>
<td>Personnel (1982)</td>
<td>no data cited</td>
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<td></td>
<td>Vogel (1967)</td>
<td>field survey</td>
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<td>8) Management communicates disinterest</td>
<td>Lawler et al. (1968)</td>
<td>field study</td>
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<td>in employee input</td>
<td>Planty &amp; Machever (1952)</td>
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<td>Berkowitz &amp; Bennis (1961)</td>
<td>field study</td>
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<td>9) Tall organizational structure/physical</td>
<td>Marrett et al. (1975)</td>
<td>correl. field study</td>
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<td>distance</td>
<td>Planty &amp; Machever (1952)</td>
<td>practitioner opinion</td>
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of formalizing a pathway for the communication of employee information. However, the program did not specify type of content to be transmitted other than to point out that questions, suggestions and comments were welcomed by management.

The structure of the program provided some reason to believe it could affect the third impediment (lack of trust in superior). By demonstrating the superior's willingness to respond to questions and listen to comments, the superior might project a less closed image to subordinates. In turn, subordinates might be more trustful of a superior they perceive as being less communicatively guarded.

The fourth impediment (subordinate desire for promotion) probably could not be significantly reduced by the program.

The program could remove the fifth impediment (no system to get questions to management quickly) as long as it was properly maintained.

The sixth and seventh impediments (management does not listen; management does not take action on input) could be removed by the program if subordinates interpret a verbal response to each upward message as listening and responsiveness. However, it is likely that some element of the subordinate's perception of listening/responsiveness is tied to seeing changes in the work environment based on subordinate input. Since management could probably not implement all suggestions or change all unfavorable conditions, the program's ability to alter subordinate perceptions of listening/responsiveness is not clear.

If management disinterest in employee input (impediment number eight) is a basic management orientation, it does not seem likely
that the program could substantially affect it. But to the extent that management is interested in employee input, the program could help remove the impediment by serving as a visible display of management interest.

If the ninth impediment (organizational structure/physical distance) limits upward communication because it necessitates an extra effort on the employee's part to communicate upward, the program could help remove it. Since the program contains a direct message channel from subordinate to superior, the subordinate's only effort would be the writing of the information to be transmitted.

Although the upward communication program could not affect all of the impediments listed, in total, it did seem to have the potential to remove or partially remove the majority of them.

Reviewing thus far, there was data indicating that subordinates desire opportunity for upward communication as well as data indicating that there is an attenuation of this opportunity. Since differences between perceived current states and desired states are dissatisfying, the upward communication program may increase satisfaction with upward communication by removing some of the factors impeding perceived opportunity to communicate upward.

**Hypothesis two.** Hypothesis two proposed that instituting the upward communication program will be associated with increased job satisfaction. It was drawn from the rationale that perception of opportunity to communicate upward is a component of the participative organizational climate associated with job satisfaction.
The concept of organizational climate can be characterized as:

the spirit or philosophy that dominates the organization and is responsible for the relationship that exists among the individuals making up that organization....The organization...is an artificial environment created to achieve certain purposes. The quality of the environment, the tools used to achieve the objectives, and the way they are used all reflect the philosophy, the attitudes, and the assumptions of those who created and came to control the organization--its management. Those who study organizations and their climates therefore, are concerned with more than the structure and processes of the organization. They are concerned also with the outlook reflected in the structure and processes, with the way in which it is perceived by the organization's personnel, and with the effect of these factors on organizational objectives and personal satisfaction (Koehler, Anatol, & Appibaum, 1981, p. 123-124).

Although there is tremendously diverse and even contradictory thought as to how to conceptualize and operationalize climate (James and Jones, 1974), a relevant and important trend in the literature is the extent to which a given organizational climate can be described as participative (Koehler et al., 1981). Both McGregor (1960) and Likert (1961), in their theoretical discussions of the relationship between participative climate and organizational outcome variables, proposed that productivity and job satisfaction will be higher in those organizations where managers operationalize an attitude of trust and confidence in subordinates by integrating them in decision processes.

An important point made by Goldhaber (1979) was that a manager's demonstration of trust and confidence in his/her subordinates takes place through specific types of communication behavior. Among those
behaviors Goldhaber equated with McGregor's participative (Theory Y) organizational climate are message travel in all directions (up, down, horizontal), decision making which incorporates input from members of all levels of the organization, encouragement of feedback and frequent interaction (p. 78).

While this intuitively valid relationship between organizational climate and communication behavior has been echoed in the literature, it has not been well researched. Lawler, Hall and Oldham (1974) stated that "the communication patterns used by the organization has an immediate impact upon the individual's life within that same organization and may be a vital, yet currently unexplored, aspect of organizational climate" (p. 153).

Although limited, some research evidence for a communication—organizational climate—job satisfaction relationship is available from Muchinsky (1977) and Welsch and LaVan (1981).

In a questionnaire study of 1,160 employees in diverse occupations from a large public utility, Muchinsky (1977) gathered perceptual data on 16 dimensions of organizational communication using Roberts and O'Reilly's (1974) questionnaire, six dimensions of organizational climate using Litwin and Stringer's (1968) scale and five dimensions of job satisfaction using Smith, Kendall and Hulin's (1969) Job Descriptive Index.

His correlational analysis showed that 47% of the possible correlations between communication and climate dimensions were significant at the .01 level and that 48% of the possible correlations between communication and satisfaction dimensions were significant.
Overviewing his results, Muchinsky concluded that "the findings of (the study) illustrate that certain dimensions of communication are related to both perceived climate and job satisfaction. As such they offer points of departure for future research, especially of an experimental nature" (p. 606).

Beyond this general conclusion, a particularly relevant finding of Muchinsky's research was the relationship between global satisfaction with communication (an organizational communication dimension) and the climate and satisfaction dimensions.

A strong correlate of all but one climate dimension... was the communication dimension of satisfaction with communication. These significant relationships seem to indicate that the respondent who has a positive feeling about communication within the organization also has positive feelings regarding the organization's psychological environment..., management in general...and the way employees identify with the organization....All of these variables seem to tap some affective feelings and suggest that personal satisfaction with communication is related to perceptions of other organizational properties or practices (1977, p. 600).

Support for the organizational communication--organizational climate--job satisfaction relationship indicated in Muchinsky's research was found in Welsch and LaVan's (1981) study of 149 employees in a Veteran's Administration Medical Center. As part of their questionnaire survey, Welsch and LaVan gathered data on level of employee organizational commitment and perceptions of organizational climate dimensions drawn from Likert's (1961, 1978) studies (communication, decision-making, leadership, motivation, goal-setting). They hypothesized a positive relationship between organizational
commitment and perception of the organizational climate as participative.

The data analysis revealed that each dimension of participative climate was correlated with commitment (minimally .40). However, the strongest correlate of organizational commitment was the climate dimension of communication ($r = .62$). Interpreting the correlation, Welsch and LaVan stated:

It was...hypothesized that positive relationships would exist between organizational commitment and perception of organizational climate as participative....All of the climate variables were significantly and positively related to organizational commitment. Communications (acceptance, accuracy, and all-directional flow) was somewhat higher than the other climate variables....A participative (Systems IV) climate in its various dimensions can thus be concluded to be positively related to organizational commitment (1981, p. 1086).

Although organizational commitment and job satisfaction may be logically discreet concepts, it can be argued that they both stem from the employee's affective response to the organization and, therefore, share a common base (Welsch and LaVan, 1981). Viewed in that light, the Welsch and LaVan results, in conjunction with Mutchinsky's findings, provide some evidence for the belief that an open communication climate (as described by Goldhaber (1979)) is a major component of the participative organizational climate.

Beyond this evidence of a general relationship, some support for a specific effect of perceived climate for upward communication on outcome variables (productivity and job satisfaction) was found in Indik, Georgopoulos and Seashore (1961) and Burke and Wilcox (1969).
Indik et al. tested hypotheses regarding superior-subordinate relationship and job performance. Their first hypothesis, "the ease or freedom of usage of the communication channel between superiors and subordinates will be positively related to performance" (p. 364), is of particular interest. "Ease or freedom of usage" was operationalized through two questionnaire items assessing employee beliefs about their superior's desire for subordinate input and their superior's openness to subordinate ideas. Those questions were 1. "Does your immediate supervisor ask your opinion when a problem comes up that involves your work?" and 2. "If you have a suggestion for improving the job or changing the set-up in some way, how easy is it for you to get your idea across to management?" (p. 362). Although not specifically stated by Indik et al., these questions seemed to assess perceived climate for upward communication.

Four performance measures were collected, both objective (ratio of output to hours) and subjective (management ratings). The sample for the study consisted of 975 employees working in 27 stations of a nationwide delivery firm. This allowed an assessment of the hypothesis at between group, individual and intra-group levels of analysis.

To test the hypothesis, the data for each of the two survey items operationalizing freedom of usage of the communication channel were correlated with each outcome measure at each level of analysis. At the between group level, the communication variables correlated moderately (.40 - .48) and significantly with the subjective outcome measures. With the objective measures, the correlations were in the proper direction (.17 - .22) but not significant. At both the
individual and the intra-group levels, the communication variables correlated weakly but significantly with both objective outcome measures and one of the subjective measures.

Satisfaction, unfortunately, was not assessed by Indik et al., but their results do support the contention that perceptions of upward communication climate are associated with important outcome variables such as job performance. Although it cannot be confirmed by existing research, Koehler et al. (1981) proposed that "effective communication leads to better job performance, which, in turn, results in job satisfaction" (p. 128).

In contrast to Indik et al., Burke and Wilcox (1969) studied the relationship between superior-subordinate relationship and job satisfaction (but not job performance). Their principle goal was to explore "the relationship between the perceived openness of superior-subordinate communications and several aspects of subordinate satisfaction" (p. 320).

Perceived openness was operationalized through two questionnaire items assessing global beliefs about their superior's and their own level of freedom and openness in superior-subordinate interactions. Because directionality of communication was not specifically addressed by Burke and Wilcox, the subordinate's perceived freedom in communicating with his/her superior can be taken as only a potential indicator of upward communication climate.

In addition to the two communication measures, five perceptual job satisfaction measures (satisfaction with company, job, supervision, performance review and climate for growth) were gathered.
The sample for the study consisted of 328 people employed in six offices of a large public utility.

To examine the relationship between openness and satisfaction, the mean satisfaction scores for 121 employees who perceived themselves and their superior as equally open were compared across five levels of openness ranging from superior and subordinate completely open to both mostly closed. For each of the five satisfaction measures, mean satisfaction was shown to increase as perceived openness increased. Burke and Wilcox concluded from the data that "there was a clear-cut effect attributable to the level of openness in superior-subordinate communication. In general, the greater the openness of either superior or subordinate (or both), the greater the degree of subordinate satisfaction on five (satisfaction measures)" (p. 326).

In reviewing some of the research on participative climates, Koehler et al. (1981) found it reasonable to conclude that "both job satisfaction and performance are improved by a participative climate of openness and candor, with due respect for legitimate areas of privacy where employees are assured that frank expression will not be punished" (p. 128). Since there is some evidence that communication perceptions are associated with organizational climate and job satisfaction and since perceptions of climate for upward communication show some relationship to outcome variables, it is plausible that the upward communication program could have an effect on job satisfaction by serving as a demonstration of some of the communication behaviors characteristic of the participative organizational climate.
In summary, support can be found for the hypotheses of this study in the organizational behavior literature. Hypothesis one proposed that instituting a formalized upward communication program will be associated with increased satisfaction with upward communication. The rationale behind the hypothesis was that employees desire the opportunity to communicate up the hierarchy to their superiors but that various factors impede their perceived opportunity. Since these impeding factors are potentially removed by the upward communication program, it should lead to an employee perception of increased opportunity to communicate upward and, therefore, to more satisfaction with upward communication.

Survey research by Vogel (1967) provided direct evidence of the widespread desire for opportunity to communicate upward by finding that over 90% of the diverse employees surveyed thought it important to be able to discuss their ideas with higher management. Berkowitz and Bennis (1961) added indirect evidence for the proposition in their analysis of self-report forms on communication episodes. Their results showed that satisfaction with a communication episode was positively associated with the receiver's hierarchical status and that contacts with superiors were judged to be significantly more important than contacts with either peers or subordinates.

Evidence for the proposition that opportunity for upward communication is attenuated was found in field studies by Lawler, Porter and Tennenbaum (1968) and Berkowitz and Bennis (1961). These studies, using self-reports of interaction episodes, found that communications initiated by subordinates were the most satisfying
type of interaction from the subordinate's perspective, 2. the least satisfying type of interaction from the superior's perspective and 3. the least common interaction type. The results prompted these researchers to conclude that superiors systematically convey to their subordinates their undervaluation of subordinate initiated communication resulting in a subordinate perception that upward communication is not welcome.

A review of organizational behavior literature revealed nine categories of impediments to perceived opportunity for upward communication. The upward communication program was seen as having the potential to remove or partially remove the majority of them leading to increased satisfaction with upward communication.

Hypothesis two proposed that instituting the upward communication program would be associated with increased job satisfaction. The rationale for this hypothesis was that the perception of opportunity to communicate upward is a component of the participative organizational climate associated with job satisfaction.

Correlational field studies by Muchinsky (1977) and Welsch and LaVan (1981) indicated some moderately strong to strong intercorrelations among communication dimensions (such as global communication satisfaction and all-directional communication), organizational climate and job satisfaction. While earlier studies by Indik et al. (1961) and Burke and Wilcox (1969) provided evidence of an association between perceived climate for upward communication and the outcome variables of job performance and job satisfaction.
Goldhaber (1979) presented a description of the communication behaviors associated with a participative organizational climate. Since the upward communication program seemed to promote many of these behaviors, the program was seen as potentially facilitating the perception of a more participative organizational climate associated with increased job satisfaction.
CHAPTER THREE

Procedure

In this chapter, the purpose of the study and the experimental treatment will be reviewed. The research population will be described and the measurement instruments discussed. The study's hypotheses will be stated in testable form and the experimental design and statistical analyses will be detailed.

The purpose of this study was to test an hypothesized positive relationship between upward communication and job satisfaction and to assess whether a specific upward communication program was effective for improving satisfaction with upward communication.

The upward communication program was one in which the employees of the focal organizational unit were made aware of an upward communication program that allowed them to use a structured form to record their questions, comments and suggestions and address them to their department director. The employees were told that information sent via the program would be initially received by a coordinator who would maintain employee confidentiality at the employee's request. This coordinator was also responsible for ascertaining responses from the department director, typing them and returning them to employees.
Research Population

The focal organizational unit for the study was selected on the basis of three criteria: 1) the structure of the unit being such that relatively discreet but comparable groups could be identified to be used as experimental and control groups; 2) the lack of any existing program overlapping the function of the proposed upward communication program; and 3) the willingness of the organization to host the program. This included the agreement of the department director to: a) sign a memo to employees explaining and endorsing the program; b) allow access to samples of employees before and after the program to complete brief questionnaires; c) be available at least weekly to formulate responses to employee concerns; and d) provide access to a typewriter, copying facilities and postage.

In exchange for hosting the program, the researcher agreed to operate all aspects of the program for ten weeks at no charge to the organization, provide a summary report and transfer the program's operation to a staff person if desired by the organization.

The organizational unit selected was the training department of an international food service organization. Overall, the department was responsible for both management and technical training for the entire organization including training need assessment, program development, training program implementation and follow-up evaluation.

Because of the organization's need for ongoing training nationwide, the department was subdivided into four regional training centers located in the northwest, southwest, midwest and southeast.
The midwest training center was located within the larger training department at the organization's corporate headquarters.

This corporate training department contained many functions in addition to the ongoing training provided by the regional training centers--training program development, new product procedures, international training and publications. At the beginning of the study, the total training department staff at corporate headquarters numbered 30 while the total training staff at the other three regional training centers numbered 10 (a staffing change after the pretest reduced the staff to 9). Additional descriptive information is provided in Appendix A.

A problem encountered in this type of field research is that a control group of employees may feel disadvantaged if they believe they have been denied access to a desirable program known to be available to their peers. In response to this concern, because of the division between the training department staff at corporate headquarters and the other training centers, these two groups were adopted as comparison groups for the study. For simplicity, the corporate training staff will be referred to as the corporate group and the combined staff of the northwest, southwest and southeast regional training centers will be referred to as the remote group.

The director of the department did not care which group served as the experimental group for the duration of the study as long as the total department got access to the program after the study was completed. Therefore, the remote group (n = 9) was arbitrarily
selected as the experimental group leaving the corporate group (n = 30) to serve as control. 

Similarities and differences between the groups were considered recognizing that in an intact group study a potential source of error is lack of comparability between the experimental and control groups. In terms of similarity, both groups are involved in determining training needs and transmitting training content to a relatively homogeneous client population. Both groups work from the same pool of existing training aids and materials and report to a common superior. Training for organizationwide product and service consistency is a stated goal of the training department.

In terms of differences, the remote group is smaller than the corporate group and does not contain as many specialized functions. Therefore, the remote group employees cannot easily "rub elbows" with many of the functional areas upon whom they depend for information and materials. The remote group is also physically isolated from the corporate decision makers (although remote managers and the department head do meet approximately monthly). In combination, it is possible that the remote group's isolation from related work functions and from face-to-face contact with the decision making/reward powers could create a different upward communication environment and different work-related attitudes when compared to the corporate group.
Data Gathering Instruments

In order to test the hypotheses of this study, it was necessary to measure job satisfaction and satisfaction with upward communication. In this study, job satisfaction is defined as the degree to which the members of an organization have a positive affective orientation toward that organization (Price, 1972). Under this general definition, the organizational behavior literature has approached the measurement of satisfaction in two ways. One is to collect data about global satisfaction with membership in the organization. The other is to examine satisfaction with various facets of organizational life (Brayfield, Wells and Strate, 1957).

Of this second approach, Smith, Kendall and Hulin's (1969) distinctions among satisfaction with work (itself), supervision, promotions, pay and coworkers have been widely adopted. Previous research addressing communication and job satisfaction (Muchinsky, 1977; Marrett, Hage & Aiken, 1975) has indicated that satisfaction can be profitably studied in terms of Smith et al.'s five facets and that communication is most strongly related to satisfaction with supervision and work. Therefore, it was determined that the facets of satisfaction with supervision and satisfaction with work should be assessed.

Satisfaction with work and with supervision were operationally defined as the extent to which an employee designated positive descriptors as characteristic of his/her work and department director as well as the extent to which he/she designated negative descriptors as uncharacteristic of his/her work and department director. The
work satisfaction scale and the supervision satisfaction scale from the Job Descriptive Index (Smith et al., 1969) were employed as measurement instruments. These scales were selected because they were judged to have high face validity, because they were used in previous studies of communication and satisfaction and because of the extensive documentation of their development by Smith et al.

The work satisfaction scale (Appendix B) presented the respondent with ten positive and eight negative descriptors such as "fascinating, routine, satisfying, boring". The respondent then designated each descriptor as describing his/her work (YES), not describing his/her work (NO) or cannot decide if it describes his/her work (?). The scale was scored in accordance with Smith et al.'s recommendations. YES to positive descriptors and NO to negative descriptors were each assigned a value of three. QUESTION MARK to any descriptor was assigned a value of one. YES to a negative descriptor and NO to a positive descriptor were each assigned a value of zero.

After the pretest, reliability for the instrument (Cronbach's Alpha) was rather low at .56. Examination of item by total correlations revealed that two of the items, "hot" and "on your feet" (numbers 8 and 14) correlated negatively with the rest of the scale. Since these items seemed most meaningful to work satisfaction in an industrial setting and since they adversely affected the reliability coefficient, they were deleted from the scale. After this adjustment, reliability for the instrument for the combined pretreatment experimental and control groups (n = 34) was .67; for the combined posttreatment groups (n = 33), .80.
The supervision satisfaction scale (Appendix C) presented the respondent with 10 positive and 8 negative descriptors such as "asks my advice, impolite, knows job well, hard to please". The scale, instructions and scoring parallel those for work satisfaction except for the management relevant descriptors. The reliability estimates (Cronbach's Alpha) for the combined pretreatment experimental and control groups was .88; for the combined posttreatment groups, .86.

Unlike the work and supervision satisfaction measures just described, a review of the organizational communication literature revealed no sophisticated measures of satisfaction with upward communication. Therefore, a satisfaction with upward communication measurement instrument was developed.

In this study, satisfaction with upward communication is defined as the degree to which the members of an organization have a positive affective orientation toward self-initiated communications with superiors. Following the facet approach to satisfaction research, upward communication satisfaction was treated as consisting of several component perceptions. Vogel's (1967) study of employee perceptions of climate for upward communication was reviewed and used as a basis for developing survey items because it was the only data based article assessing components of satisfaction/dissatisfaction with upward communication.

Vogel's analysis of his survey results led him to six conclusions regarding facets of dissatisfaction with upward
communication:

1. Many employees fear that expressing their true feelings about their company to the boss could be dangerous.
2. (There is a) fairly widespread belief that disagreeing with the boss will block promotion.
3. (There is a) widespread conviction that management is not interested in employee problems.
4. (There is a) feeling that employees are not rewarded for good ideas.
5. (There is a) lack of supervisory accessibility and responsiveness.
6. (There is a) conviction that higher management doesn't take prompt action on problems (1967, p. 20-22).

Operationally, degree of satisfaction with upward communication was defined as the extent to which an employee indicated agreement with positive statements about facets of upward communication in their department. Respondents indicated their agreement/disagreement with the statements on six-point, Likert-type scales.

Using Vogel's conclusions as a point of departure, the statements about facets of upward communication for the satisfaction instrument (Appendix D) were developed as follows. Vogel's first two conclusions seemed to both be related to a general concern on the part of employees regarding their ability to communicate candidly with superiors without fear of reprisal. This notion was translated into the statement "Employees can express true feelings about the department to management without being penalized" (item 5).

Vogel's third conclusion regarding management interest in employee problems was incorporated in two separate statements since employee problems might be reflected in either the ideas or questions posed by employees. The two statements were "Management is interested
in employee ideas" (item 1) and "Management is interested in employee questions" (item 4).

Conclusion number four regarding rewards for employee input was reflected in the statement "When employees give good ideas to management, they receive recognition from management" (item 3).

Conclusion number five regarding management accessibility in general was divided into two statements, one for accessibility for employee questions and one for accessibility for employee ideas on the grounds that the concept of general accessibility may be too vague and that managers may be perceived as differentially accessible depending on the type of employee input. The statements are "Management is available to employees who have questions" (item 2) and "Management is available to employees who have ideas" (item 6).

Vogel's final conclusion regarding management's willingness to take action on employee input was reflected in the statement "Management takes action on information initiated by employees" (item 7).

Finally, an eighth statement was constructed to tap global satisfaction with upward communication on the assumption that employees have some sense of a generalized climate for upward communication in their department. The statement is "Considering opportunities to send information to management as well as management's responsiveness to that information, employees are satisfied with the communications they initiate with management" (item 8).

The instrument was scored by assigning a value of one to "disagree very strongly", two to "disagree strongly", three to
"disagree", four to no response, five to "agree", six to "agree strongly" and seven to "agree very strongly" then summing across the eight items to provide a total upward communication satisfaction score (Kerlinger, 1973, p. 497).

Reliability (Cronbach's Alpha) for combined pretest experimental and control groups was .91; for posttest it was .89.

Design

The design for testing the hypotheses of this study was a nonequivalent control group design (Campbell and Stanley, 1966, p. 47). In this design, two intact groups served as experimental and control groups. Each member of both groups was given a pretest on each variable then one group was arbitrarily selected to receive the experimental treatment. At the end of the treatment period, both groups were given a posttest on each variable.

In terms of Campbell and Stanley's (1966) assessment of the extent to which designs control threats to validity, this design sacrificed some control in exchange for the realism found in the field situation. Specifically, the design did not positively control for the internal validity threats of regression and interaction of selection with other threats. Regarding external validity, the design did not control for the potential confounding of results by the interaction of testing and treatment, the interaction of selection and treatment or subject reactivity.

Given that the hypotheses of this study were specific to the organizational (field) setting, the constraints of the design were
accepted. The design was seen as capable of producing meaningful results but necessitating cautious interpretation. Both Campbell and Stanley (1966) and Kerlinger (1973) noted that for field research the best compromise design should be selected and the study conducted with special attention to the validity issues. Kerlinger states:

The fact must be faced that frequently in research it is extremely difficult or impossible to equate groups by random selection or random assignment, or by matching. Should one then give up doing the research? By no means....An effort should be made at least to use samples from the same population or to use samples as alike as possible....Then the similarity of the groups should be checked using any information available.... Although one cannot have the assurance that randomization gives, if these items all check one can go ahead with the study knowing at least that there is no evidence against the equivalence assumption (1973, p. 342).

In selecting the design for the research it seemed valuable to examine ways in which the execution of the design in the organization might affect other aspects of the study. One problem in executing this design was that it necessitated that employees rate their department head in judgment-of-quality terms. It is reasonable to assume that some employees might censor their own judgments if there is the possibility that their judgments and identities will be made available to those being judged. Therefore, special attention was paid to assuring respondents that their identities would not be made available to management.

A second problem with the design was that the repeated measurement of employees may have (at least in management's
perception) sensitized employees to areas of concern which previously had not been a problem or given the impression that management was worried about employee attitude on the topic areas covered in the research instruments. In response to this concern, management was told that endorsement of the survey may also be interpreted by employees as a good-faith effort to understand and improve aspects of the work situation.

Although these problems could be minimized by not requiring identities on response forms and/or by not pretesting and posttesting the same individuals, if these remedies were employed it would rule out all data analysis based on the changes recorded by individuals from pretest to posttest, a rather severe penalty.

Weighing the problems of execution posed by the design against the quality of the resultant data, it was determined that dealing with the problems of execution was the lesser evil.

Procedure

The design was executed in the organization in the following manner. After the director of training agreed to the conditions of the study and after it was determined that the research population could be divided into experimental and control groups, data gathering instruments (Appendix B, C and D) were sent to each employee in the department via intra-company mail.

Accompanying the data gathering instruments were a memo from the director and a letter from the researcher. The director's memo (Appendix E) stressed the importance of up-to-date information,
introduced the researcher, previewed the upward communication program, asked employees to complete the instruments, indicated that the employees would see the instruments again, guaranteed employee anonymity and indicated that summary results from the instruments would be made available. The researcher's letter (Appendix F) provided instructions for the instruments, stressed that employees would remain anonymous, indicated that a retest would take place and provided a phone number for employees to call to ask the researcher questions about the study.

To increase employee confidence in the protection of their anonymity, they were instructed to return the data gathering instruments using stamped envelopes addressed to the researcher at the university instead of using intra-company mail. After initial returns dropped off, phone calls produced an additional two responses.

Two weeks later, summaries for employees and the director were developed and fed back. The employee summary (Appendix G) presented, for each work and supervision satisfaction item, overall proportion of agree/disagree responses (ignoring "cannot decide" responses). The responses to the Likert-type scales used on the upward communication satisfaction items were presented collapsed into agree and disagree categories. This summary was mailed to each employee attached to a letter from the researcher which thanked employees for responding and encouraged them to call the researcher if they had questions.

The director's summary (Appendix H) presented proportion of agree/disagree responses to each satisfaction item for the remote group, the corporate group and the overall department. "Cannot
decide" responses were not included in the calculation of the percentages but those items where at least 25% of the responses were "cannot decide" were noted. This summary was presented to the director at a meeting scheduled for that purpose. Although not at the request of the researcher, the director subsequently posted the summary on a bulletin board and discussed the results in one of his regularly scheduled meetings with his managers.

The total time from initial mailing of data gathering instruments to feedback of summary results was approximately six weeks.

One week after the feedback of the summaries, the upward communication program was instituted via a memo from the director to the remote group. This memo (Appendix I) described the program and the communication form (Appendix J), explained where to send the form, and indicated that judgments about the future of the program would be based on the amount and type of employee response as well as the results of the posttest.

The program was used once by a remote employee during the experimental period. The nature of the input was a suggestion about department operations sent by an employee who did not desire anonymity. A written response from the director was sent to the employee and subsequent action was taken by the director on the suggestion.

This rate of usage was lower than initial, intuitive expectation. However, the lack of a firm reference point either within the company or in the literature made it difficult to determine if the rate was actually depressed. According to Koehler et al. (1981), the average number of usages of upward communication programs is 200 to 300 per
1000 employees per year. Reducing this ratio to the scale of the experimental group, about two or three usages would be expected per year, making one usage in ten weeks seem somewhat reasonable. When asked about the rate of input, the director said that from his perspective on his subordinates, relatively limited usage of the program might be taken as a sign of communicative health, an indication that the existing, formal channels were carrying nearly all of the necessary information.

In light of these points, there was less concern that employees in the experimental group misunderstood the purpose or mechanics of the upward communication program. However, to insure that the program had an opportunity to operate as it was intended, in the sixth week of the program, another memo from the director (Appendix K) reminding employees of the availability of the program was sent to the remote group.

After the program had been in operation for ten weeks, the data gathering instruments were again mailed to each employee in the department accompanied by a memo from the director (Appendix L) and a letter from the researcher (Appendix M).

**Hypotheses**

Following the above procedures and using the data gathering instruments previously described, pretreatment and posttreatment scores on the work satisfaction, supervision satisfaction and upward communication satisfaction scales were obtained for the remote group (experimental) and the corporate group (control) in order to test
these hypotheses:

1a) For the experimental group, upward communication satisfaction will be greater on the posttest than on the pretest.

1b) The experimental group will have a greater increase in upward communication satisfaction than will the control group.

2a) For the experimental group, satisfaction with work will be greater on the posttest than on the pretest.

2b) The experimental group will have a greater increase in satisfaction with work than will the control group.

3a) For the experimental group, satisfaction with supervision will be greater on the posttest than on the pretest.

3b) The experimental group will have a greater increase in satisfaction with supervision than will the control group.

Analysis

Because the two comparison groups had unequal n's and because one of the groups had an n of less than ten, it was believed that nonparametric statistics would provide a more valid analysis of the data than their parametric counterparts.

Before testing the hypotheses, the equivalence of the experimental and control groups on each variable was assessed using Mann-Whitney U tests.

For hypotheses 1a, 2a and 3a above, Wilcoxon's Matched Pairs test was used to test the magnitude of pretest-posttest change on each measure for the experimental group. Implicit in hypotheses 1a, 2a
and 3a was the prediction that the control group measures would not change from pretest to posttest. This prediction was tested using Wilcoxon's Matched Pairs test to test the magnitude of control group pretest-posttest change on each measure.

For hypotheses 1b, 2b and 3b above, the Mann-Whitney U test was used to compare the pretest-posttest difference scores of the experimental and control groups.

The alpha level was set at .05 for all statistical tests. Return rates on the pretest measurement instruments were 100% (remote group) and 83% (corporate group); on the posttest they were 100% (remote group) and 80% (corporate group).

Summary

In summary, the purpose of this study was to test an hypothesized positive relationship between upward communication and job satisfaction and to assess whether or not a specific upward communication program was able to increase satisfaction with upward communication. To carry out this purpose, a department of an organization not currently operating a formal upward communication program was selected as a site for the study. Two departmental groups were identified to serve as treatment and control groups.

To measure the relevant variables (satisfaction with work, supervision and upward communication), existing measures of work and supervision satisfaction were employed and a measure of upward communication satisfaction was created. The reliabilities for each measure respectively on the pretest were .68, .89 and .91. On the
posttest they were .80, .86 and .89. Scores on each measure were incorporated in a nonequivalent control group design.

To test the hypotheses of the study, the Mann-Whitney U test was used to assess differences between the experimental and control groups and Wilcoxon's Matched Pairs test was used to assess pretest to posttest differences within each group. The significance level for all comparisons was set at .05. Return rates on the pretest were 100% (remote group) and 83% (corporate group); on the posttest they were 100% (remote group) and 80% (corporate group).
CHAPTER FOUR

Results

In this chapter, the results of the statistical analyses described in the previous chapter will be presented. Maintaining the convention used elsewhere in this report, the group that received the experimental treatment will be referred to as the remote group; the control group will be referred to as the corporate group. For clarity, each of the study's hypotheses will be restated followed by the results of the analysis for each hypothesis. The data sets for upward communication, work and supervision satisfaction gathered from the host organization are found in Appendices N, O and P, respectively.

Prior to testing the hypotheses, the equivalence of the remote and corporate groups on each pretest measure was assessed using a Mann-Whitney U test. The results of those analyses are summarized in Table 4.1. In no case did the groups differ at the .05 level.

Hypothesis la stated that for the remote group, upward communication satisfaction would be greater on the posttest than on the pretest. A summary of the Wilcoxon's Matched Pairs test of pretest-posttest upward communication satisfaction is presented in Table 4.2.
TABLE 4.1
Mann-Whitney U Tests of Remote-Corporate Pretest Upward Communication, Work and Supervision Satisfaction

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>U</th>
<th>z</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remote</td>
<td>8</td>
<td>120.0</td>
<td>1.50</td>
<td>&gt;.05</td>
</tr>
<tr>
<td>Corporate</td>
<td>22</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remote</td>
<td>9</td>
<td>93.5</td>
<td>0.24</td>
<td>&gt;.05</td>
</tr>
<tr>
<td>Corporate</td>
<td>22</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supervision</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remote</td>
<td>8</td>
<td>92.0</td>
<td>0.19</td>
<td>&gt;.05</td>
</tr>
<tr>
<td>Corporate</td>
<td>22</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TABLE 4.2
Wilcoxon's Test of Pretest-Posttest Upward Communication Satisfaction for the Remote Group

<table>
<thead>
<tr>
<th>n Non-Zero Dif.</th>
<th>T</th>
<th>T</th>
<th>z</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>18</td>
<td>1.5</td>
<td>2.31</td>
<td>&lt;.05</td>
</tr>
</tbody>
</table>

TABLE 4.3
Wilcoxon's Test of Pretest-Posttest Upward Communication Satisfaction for the Corporate Group

<table>
<thead>
<tr>
<th>n Non-Zero Dif.</th>
<th>T</th>
<th>T</th>
<th>z</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>68</td>
<td>57</td>
<td>0.56</td>
<td>&gt;.05</td>
</tr>
</tbody>
</table>
The results of the analysis support the research hypothesis.

Implicit in hypothesis 1a was the prediction that the corporate group would show no change in upward communication satisfaction from pretest to posttest. A summary of the Wilcoxon's test of pretest and posttest upward communication satisfaction for the corporate group is presented in Table 4.3. The results of the analysis support the prediction of no change from pretest to posttest.

Hypothesis 1b stated that the remote group would have a greater increase in upward communication satisfaction than would the corporate group. A summary of the Mann-Whitney U test comparing upward communication satisfaction difference scores for the remote and corporate groups is presented in Table 4.4.

TABLE 4.4
Mann-Whitney U Test of Remote-Corporate
Upward Communication Satisfaction

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>U</th>
<th>z</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remote</td>
<td>8</td>
<td>39</td>
<td>2.30</td>
<td>&lt; .05</td>
</tr>
<tr>
<td>Corporate</td>
<td>22</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results of the analysis support the research hypothesis.

Hypothesis 2a stated that, for the remote group, satisfaction with work would be greater on the posttest than on the pretest. A summary of the Wilcoxon's test of pretest and posttest work satisfaction for the remote group is presented in Table 4.5.
TABLE 4.5

Wilcoxon's Test of Pretest-Posttest Work Satisfaction for the Remote Group

<table>
<thead>
<tr>
<th>n</th>
<th>Non-Zero Dif.</th>
<th>T</th>
<th>T</th>
<th>z</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>18</td>
<td>12</td>
<td>0.84</td>
<td>&gt; .05</td>
<td></td>
</tr>
</tbody>
</table>

The results of the analysis do not support the research hypothesis.

Implicit in hypothesis 2a was the prediction that the corporate group would show no change in work satisfaction from pretest to posttest. A summary of the Wilcoxon's test of pretest and posttest work satisfaction for the corporate group is presented in Table 4.6.

TABLE 4.6

Wilcoxon's Test of Pretest-Posttest Work Satisfaction for the Corporate Group

<table>
<thead>
<tr>
<th>n</th>
<th>Non-Zero Dif.</th>
<th>T</th>
<th>T</th>
<th>z</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td>115.5</td>
<td>86</td>
<td>1.00</td>
<td>&gt; .05</td>
<td></td>
</tr>
</tbody>
</table>

The results of the analysis support the prediction of no change from pretest to posttest.

Hypothesis 2b stated that the remote group would have a greater increase in work satisfaction than would the corporate group. A summary of the Mann-Whitney U test of work satisfaction difference scores for the remote and corporate groups is presented in Table 4.7.
TABLE 4.7
Mann-Whitney U Test of Remote-Corporate Work Satisfaction

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>U</th>
<th>z</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remote</td>
<td>9</td>
<td>108.5</td>
<td>0.41</td>
<td>&gt;.05</td>
</tr>
<tr>
<td>Corporate</td>
<td>22</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results of the analysis do not support the research hypothesis.

Hypothesis 3a stated that, for the remote group, satisfaction with supervision would be greater on the posttest than on the pretest. A summary of the Wilcoxon's test of pretest and posttest supervision satisfaction for the remote group is presented in Table 4.8.

TABLE 4.8
Wilcoxon's Test of Pretest-Posttest Supervision Satisfaction for the Remote Group

<table>
<thead>
<tr>
<th>n Non-Zero Dif.</th>
<th>T</th>
<th>T</th>
<th>z</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>14</td>
<td>11</td>
<td>0.51</td>
<td>&gt;.05</td>
</tr>
</tbody>
</table>

The results of the analysis do not support the research hypothesis.

Implicit in hypothesis 3a was the prediction that the corporate group would show no change in supervision satisfaction from pretest to posttest. A summary of the Wilcoxon's test of pretest and posttest supervision satisfaction for the corporate group is presented in Table 4.9.
TABLE 4.9
Wilcoxon's Test of Pretest-Posttest Supervision Satisfaction for the Corporate Group

<table>
<thead>
<tr>
<th>n Non-Zero Dif.</th>
<th>T</th>
<th>T</th>
<th>z</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td>115.5</td>
<td>92</td>
<td>0.82</td>
<td>&gt;.05</td>
</tr>
</tbody>
</table>

The results of the analysis support the prediction of no change from pretest to posttest.

Hypothesis 3b stated that the remote group would have a greater increase in supervision satisfaction than would the corporate group. A summary of the Mann-Whitney U test of supervision satisfaction difference scores for the remote and corporate groups is presented in Table 4.10.

TABLE 4.10
Mann-Whitney U Test of Remote-Corporate Supervision Satisfaction

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>U</th>
<th>z</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remote</td>
<td>8</td>
<td>87.5</td>
<td>0.02</td>
<td>&gt;.05</td>
</tr>
<tr>
<td>Corporate</td>
<td>22</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results of the analysis do not support the research hypothesis.

To check for a ceiling effect on posttest work and supervision satisfaction scores, mean pretest scores for the experimental and control groups were compared with Smith et al.'s (1969) normative means for the two instruments. Since the observed means for supervision


satisfaction were lower than the norm and since the observed means for work satisfaction were nearly the same as the norm, it was concluded that a ceiling effect was not operating.

Summarizing the analyses, support was found for the predicted positive relationship between employee access to a structured upward communication program and satisfaction with upward communication. The group exposed to the program indicated greater satisfaction with upward communication from pretest to posttest ($z = 2.31, p < .05$) while the control group indicated no difference in pretest and posttest satisfaction. Further, the group exposed to the program showed a greater increase in upward communication satisfaction than did the control group ($z = 2.38, p < .05$).

It was also predicted that a positive relationship would exist between access to a structured upward communication program and both work and supervision satisfaction. However, these predictions were not supported by the data.
CHAPTER FIVE

Discussion and Summary

In this chapter, the conclusions from the data analysis will be presented, qualified and discussed. The study will be summarized and implications will be detailed.

Conclusions

The analysis of the data gathered in this study yielded two major conclusions:

The presence of increased opportunity for upward communication in an organizational unit via a structured upward communication program was associated with increased satisfaction with upward communication.

The presence of increased opportunity for upward communication via a structured upward communication program was not associated with a change in satisfaction with work or with supervision.

Discussion

Before discussing the results of the study in relationship to the theoretical background developed in Chapter Two, it is important to clarify the qualifications accompanying the conclusions.

Because the study took place in the field, it is likely that important factors (factors able to alter the data) other than the
experimental treatment varied in some systematic fashion during the
experimental period. While it may be a necessary evil of longitudinal
field experimentation, the results must be qualified by the possi­
bility that unmeasured causes of variation may have affected the
results.

On the other side of the coin, the results do emanate from a
quasi-experimental design where relationships between variables were
first hypothesized then tested by manipulating an experimental
treatment. All things being equal, this should provide more persuasive
results than a purely descriptive, correlational study.

The department of the organization providing the experimental
groups was not drawn from a large, homogeneous population of organiza­
tional departments. Therefore, the generality of the results for all
other settings is not strong. Hopefully, because the hypotheses of
the study were not premised on any characteristics unique to this
specific organization, the findings will have some application in
other settings of similar size, structure and technology.

With these qualifications in mind, the relevance of the conclu­
sions can be addressed. Reviewing the theoretical background for the
hypotheses presented in Chapter Two, hypothesis one (upward communi­
cation program positively associated with satisfaction with upward
communication) was premised on a four part rationale: 1) subordinates
desire opportunity for upward communication with their superiors;
2) opportunity for upward communication is attenuated by several
organizational factors; 3) a difference between perceived current
level of opportunity for upward communication and desired level is dissatisfying; and 4) the upward communication program removes some of the factors attenuating perceived opportunity to communicate upward.

Hypothesis two (upward communication program positively associated with work and supervision satisfaction) was premised on the rationale that the program represented to employees a behavioral manifestation of the participative organizational climate associated with job satisfaction.

An interesting outcome of the research related to hypothesis one was that employee satisfaction with upward communication was improved simply by the perception that more opportunity to communicate upward was available. According to Vogel's (1967) study, 90% of the employees surveyed judged it important to be able to discuss their ideas with higher management.

Whether or not Vogel intended to differentiate between the perception of opportunity to communicate upward and actually initiating messages upward, the results of this study provide some reason to believe that, where communication is concerned, there is a meaningful distinction between one's perceived rights/opportunities to communicate and one's actual communication behavior.

Since a meaningful component of satisfaction with communication can be altered in the absence of actual changes in existing communication behavior patterns, at least part of employee satisfaction with communication in their organization is based on what employees perceive their communication privileges to be.
This supports the belief that the value of an executive's "open door" policy is mainly attitudinal, not informational. Most employees do not exercise their opportunity to initiate communications upward, still, as long as these same employees are aware that they can have access to the boss' ear if they wish, they are more satisfied with that aspect of the communication environment.

In light of the positive relationship between perceived upward communication opportunity and satisfaction, a second outcome worth noting is the narrowness of the effect of the communication treatment.

The theoretical foundation for hypothesis two operates from the premise that employees develop affective responses to their workplace in response to a network of causally linked component perceptions collectively called "climate". Accordingly, since these perceptions are linked, positive changes in one aspect of climate should set into motion a number of other positive perceptual changes. Studies by Muchinsky (1977) and Welsch and LaVan (1981) provided reason to believe that communication satisfaction perceptions are an integral part of the climate network. According to Muchinsky:

> These significant relationships seem to indicate that the respondent who has a positive feeling about communication within the organization also has positive feelings regarding the organization's psychological environment..., management in general...and the way employees identify with the organization....All of these variables seem to tap some affective feelings and suggest that personal satisfaction with communication is related to perceptions of other organizational properties or practices (p. 600).
From the climate network premise, a program that elicits a positive change in a given perception (upward communication) should also elicit positive changes in other satisfaction perceptions (work, supervision). Since the data were inconsistent with this theoretical premise, an explanation is in order.

The findings of this study do not disconfirm the fundamental relationship between communication perceptions and other facets of organizational climate. The results do question the direction and strength of the causal links. As theory currently stands, employees are viewed as abstracting from specific behavioral changes in the environment a generalized perception of change in overall organizational climate. Using the popular example of participative decision making, if a superior began calling meetings of his/her subordinates to make decisions formally made by the superior alone, it would be predicted that the subordinates would interpret the behavior not just as a change in a method of decision making but as a manifestation of a change in the superior's general attitude toward the subordinates leading to increased job satisfaction.

It is consistent with the findings of this study to amend the basic theory as follows. Employees do develop affective responses to the workplace based on the network of perceptions called organizational climate (of which upward communication climate is a part). However, there is a relatively limited number of critical perceptions in the network that cause employee job satisfaction as well as other climate perceptions. As communication factors are the central focus of this study, it is posited that the subordinate's
perception of his/her superior's communicative openness constitutes one of these critical perceptions.

Support for this position is drawn from previous research by Willits (1967) and from data gathered in this study. In a survey of executives from manufacturing companies, Willits assessed 1) the executives' perceived opportunity to express opinions to the presidents of their companies (called participation by Willits), 2) the executives' perceptions of their presidents' communicative openness, 3) the executives' perceptions of their openness with their president and 4) executive job satisfaction. Correlational analysis indicated a significant, positive relationship between open communication by the executives and executive satisfaction but a complete lack of relationship between perceived opportunity for upward communication and satisfaction, leading Willits to conclude that "the important variable (in job satisfaction) is the executives' decision to speak openly rather than the mere existence of an opportunity to express ideas and opinions" (p. 104).

As an alternative explanation of Willit's results, it is posited that the superior's communicative openness is causal both in subordinate job satisfaction and in the subordinate's decision to speak openly. As might be expected, studies have revealed a positive relationship between the superior's communicative openness and his/her subordinate's openness as well as between openness and satisfaction (Willits, 1967; Burke & Wilcox, 1969). Superior openness, as a critical factor, is believed to operate in this manner: Subordinates are more likely to actually initiate communications to a superior who
has demonstrated that he/she will share important information openly with subordinates. The superior's behavior of sharing information openly also contains the implicit message that subordinates are 1) worthy of complete information, 2) able to evaluate candid information and 3) able to develop valuable responses to the information. This implicit message increases the subordinate's feeling of worth in the work setting and thereby increases feelings of job satisfaction.

Following this scenario, the decision to initiate an upward communication, the perception of opportunity for upward communication and job satisfaction can all be viewed as effects of the superior's communicative openness. The data gathered in this study support this interpretation by virtue of a somewhat counterintuitive relationship among variables; employees who apparently desired increased opportunity for upward communication registered increased satisfaction with upward communication when opportunity increased but did not, to any great extent, make use of the increased opportunity.

This relationship can be adequately explained by reference to superior openness as a critical, causal factor. To the extent that superior openness is causal, the manipulation of opportunity for upward communication in order to affect other variables wrongly reverses the causal direction of the job satisfaction equation. Although it seems possible to alter a specific facet of satisfaction (e.g., satisfaction with upward communication) by manipulating perceptions directly related to that facet, if the manipulation is
not, itself, an effect of a change in superior openness, change in a single facet of satisfaction would not be expected to generalize to other areas. It would not motivate use of the new upward communication channel and it would not be associated with increased job satisfaction.

Data provided by the sample of employees for this study indicate that the situation described above may have obtained in the department during the experimental period. Although respondents were not instructed to include comments on the survey form nor provided with any designated space for doing so, approximately one quarter included a significant amount (whole sentences) of written comments. In examining these comments for generalities, two major categories emerged. One was a specific intra-company issue, the other centered on the topic of the director's communicative openness.

Expressed in the openness category of comments were these perceptions: The director withholds information and ideas that should be presented at an earlier time. He may not always really listen even when requesting information. Employees are not sure what is expected and are afraid to share ideas because hidden agendas may be operating. A seemingly related issue is that the director is more distant interpersonally than employees would like him to be. Employees would like to know the director better and work more closely with him. By not being well understood personally, the director appears unapproachable to employees. This may hurt information sharing. It may be easier/safer for employees to tell him what they think he wants to hear instead of the true story.
Some additional insight into the openness issue was available by looking at an item from the supervision satisfaction scale. From the list of management descriptors, the item "(the director) let's me know where I stand" seemed to tap some portion of employee perceptions of the director's openness. Averaged across the pretest and posttest, nearly two thirds of the sample indicated the director did not let them know where they stand. In total, the unsolicited written comments and the responses to the supervision satisfaction item are congruent with the position that the critical, causal variable of superior openness was perceived by employees to be at less than an optimal level. Consequently, work and supervision satisfaction would not be expected to improve.

What seems to emerge as important from this study is that employees are able to clearly distinguish among facets of organizational climate and are able to respond to various facets as being differentially important. Given the sample's perceptions of the director's openness, it would not have been surprising had they completely rejected the upward communication program as insincere or manipulative. This, however, was not the case. In meetings with the researcher, the director expressed no interest in changing his basic attitudes toward his employees but he did indicate an interest in providing them with an additional channel of communication. The employees, in turn apparently attributed an honest motive to the program and accepted it for what it was. However, they did not over-interpret it as a change in total communication climate or a change in general management attitude.
The results of this study can be explained by positing that employees are able to recognize, and respond to, changes in the work environment designed to address specific climate issues but they are also able to recognize whether or not these changes are the product of a shift in a more critical variable such as superior openness.

In Chapter One, it was noted that a substantial body of literature describes upward communication as a stimulant of job satisfaction but that this relationship has not been subjected to much empirical study. The purpose of this study, therefore, was to examine the veracity of the claim. In response to that purpose, the findings indicate that the positive relationship between upward communication and job satisfaction, as it is described in the literature, does not present an accurate picture of the linkage between the variables. Statements such as "upward communication has the effect of improving morale and employee attitude" (Goldhaber, 1979, p. 137), assume a direct causation of upward communication on outcome and ignore the importance of moderating or causal third variables. It is understandable that upward communication and job satisfaction are so often mentioned together in the literature. Correlationally, they are related. On the other hand, there is no evidence supporting a direct causal link between the two and data-consistent reason to believe that they are linked predominantly because they covary in response to another variable such as perceived communicative openness.

The tone of much of the literature is that upward communication is a viable organizational strategy to elicit the desirable outcome.
of subordinate satisfaction. This study demonstrates that specific communication aspects of the workplace can be made more suitable to employees using specific, focused programs. But it also suggests that the desired outcome of general subordinate job satisfaction will be associated with increased opportunity for upward communication only to the extent that it is the product of a visible change in management attitude toward the larger issue of the superior-subordinate communicative relationship.

Summary

Summarizing the study, the purpose was to quasi-experimentally test for a positive relationship between opportunity for upward communication and employee satisfaction in a field setting. The rationale for the research was derived from the established body of literature indicating academic and business interest in upward communication. The literature commonly discussed correlates of upward communication, often culminating in weakly supported statements of causality between upward communication and other variables such as job satisfaction. Because there was so little research backing these claims, it was believed that the relationship should be more systematically tested.

To carry out the purpose of the study, two general hypotheses were proposed:

1) Instituting a program to increase employee opportunity for upward communication will be associated with increased satisfaction with upward communication.
2) Instituting a program to increase employee opportunity for upward communication will be associated with increased job satisfaction (satisfaction with work itself and supervision).

The rationale behind hypothesis one was that employees desire the opportunity to communicate up the hierarchy to their superiors but that various factors impede their perceived opportunity. Since these impeding factors are potentially removed by the upward communication program, it should lead to an employee perception of increased opportunity to communicate upward and, therefore, to more satisfaction with upward communication.

Survey research by Vogel (1967) provided direct evidence of the widespread desire for opportunity to communicate upward by finding that over 90% of the diverse employees surveyed thought it important to be able to discuss their ideas with higher management. Berkowitz and Bennis (1961) added indirect evidence for the proposition in their analysis of self-report forms on communication episodes. Their results showed that satisfaction with a communication episode was positively associated with the receiver's hierarchical status and that contacts with superiors were judged to be significantly more important than contacts with either peers or subordinates.

Evidence for the proposition that opportunity for upward communication is attenuated was found in field studies by Lawler, Porter and Tennenbaum (1968) and Berkowitz and Bennis (1961). These studies, using self-reports of interaction episodes, found that communications initiated by subordinates were 1) the most satisfying type of interaction from the subordinate's perspective, 2) the least
satisfying type of interaction from the superior's perspective and
3) the least common interaction type. The results prompted these
researchers to conclude that superiors systematically convey to their
subordinates their undervaluation of subordinate initiated communi-
cation resulting in a subordinate perception that upward
communication is not welcome.

A review of organizational behavior literature revealed nine
categories of impediments to perceived opportunity for upward com-
munication. The upward communication program was seen as having the
potential to remove or partially remove the majority of them leading
to increased satisfaction with upward communication.

The rationale for hypothesis two was that the perception of
opportunity to communicate upward is a component of the participative
organizational climate associated with job satisfaction.

Correlational field studies by Muchinsky (1977) and Welsch and
LaVan (1981) indicated some moderately strong to strong inter-
correlations among communication dimensions (such as global communi-
cation satisfaction and all-directional communication), organizational
climate and job satisfaction. While earlier studies by Indik et al.
(1961) and Burke and Wilcox (1969) provided evidence of an associa-
tion between perceived climate for upward communication and the
outcome variables of job performance and job satisfaction.

Goldhaber (1979) presented a description of the communication
behaviors associated with a participative organizational climate.
Since the upward communication program seemed to promote many of
these behaviors, the program was seen as potentially facilitating the
perception of a more participative organizational climate associated with increased job satisfaction.

To test the study's hypotheses, a department of an organization not currently operating a formal upward communication program was selected as a sample for study. Two departmental groups were identified to serve as treatment and control groups.

To measure the relevant variables (satisfaction with work, supervision and upward communication), existing measures of work and supervision satisfaction were employed and a measure of upward communication satisfaction was created. The reliabilities for each measure respectively on the pretest were .68, .89 and .91. On the posttest they were .80, .86 and .89. Scores on each measure were incorporated in a nonequivalent control group design.

The Mann-Whitney U test was used to assess differences between the experimental and control groups and Wilcoxon's Matched Pairs test was used to assess pretest to posttest differences within each group. The significance level for all comparisons was set at .05. Return rates on the pretest were 100% (remote group) and 83% (corporate group); on the posttest they were 100% (remote group) and 80% (corporate group).

Support was found for the predicted positive relationship between employee access to a structured upward communication program and satisfaction with upward communication. The group exposed to the program indicated greater satisfaction with upward communication from pretest to posttest (z = 2.31, p < .05) while the control group indicated no difference in pretest and posttest satisfaction.
Further, the group exposed to the program showed a greater increase in upward communication satisfaction than did the control group (z = 2.30, p < .05).

It was also predicted that a positive relationship would exist between access to a structured upward communication program and both work and supervision satisfaction. However, these predictions were not supported by the data.

Interpreting the results, it was believed that a significant measure of upward communication satisfaction was based on the employee's perceptions of his/her communicative privileges vs. actual communication behavior. Further, it was posited that employees were able to distinguish among various facets of organizational/communication climate and respond to them differentially. It was believed that some subset of climate perceptions were critical in causing both subordinate job satisfaction and other climate factors. Superior communicative openness was hypothesized to be one of these critical variables.

**Implications**

For the manager, an implication of this research is that programs that modify specific communication aspects of the work environment can be expected to have an effect, but cannot be expected to take the place of a change in basic management orientation toward communication issues. Willits (1967) similarly surmised from his study that participation (defined as opportunity to communicate with the boss) may only affect job satisfaction "when combined with other changes in supervisory style, changes, which for example, serve to
elicit trust and more open interpersonal relations" (p. 105).

The findings present the manager with both positive and negative aspects. On the positive side, managers might expect that they can formulate programs to address specific communication inadequacies and expect to see an improvement in employee attitude toward the inadequacy.

On the negative side, there is no firm evidence indicating it is reasonable to expect managers to be able to change their orientation toward basic issues (such as the nature of the superior-subordinate communicative relationship) for the sake of improving subordinate satisfaction. In the extant literature, there is little argument with Willit's position that "management stands to gain if it can generate an atmosphere within the organization wherein lower levels of management feel free to communicate openly with higher levels and in fact actually do so" (p. 105). The question lies in the feasibility of changing management attitudes (leading to changes in behavior) to the extent necessary to generate a different communication atmosphere.

It can be argued that a change in management orientation is not really necessary because, at some point, even a highly generalized management orientation like McGregor's (1960) 'Theory Y' must be operationalized as management behaviors/programs which can be enacted by a manager of any orientation. However, the results of this study suggest that employees may have both the ability and the desire to discriminate between the effects of changes in behaviors/programs and the effects of changes in attitudes.
For the organizational communication researcher, an area for further investigation is the relationship between employee perceptions of communication variables vs. their objective levels. Based on the conclusion that perceptions of communication privileges contribute significantly to satisfaction, a useful study would be the comparison of perceived communication opportunities with actual communication behaviors and the relative relationship of each to satisfaction and other outcome variables.

A second area for further investigation is the viability of the position that there are key, causal variables in the organizational climate-job satisfaction equation. Specifically, it would be valuable to test the position that communicative openness represents one of these factors. Although it would be difficult to answer this question via a true experiment, it could be approached by gathering data on communication openness attitudes from managers about to take a new position and comparing those measures with changes in subordinate perceptions of communication/climate variables before and after the new manager.

A general implication of the findings for future organizational communication studies is the importance of including experimental and quasi-experimental designs in communication/organizational climate research programs. Presently, many communication/climate variables are known, or are suspected, to be correlated. By testing some of these relationships to determine critical variables and causal direction, communication theories and prescriptions drawn from those theories will be much more valid.
LIST OF REFERENCES


APPENDIX A

Some readers may be interested in determining the extent to which a given organizational department resembles the focal department in this study. This additional information (much of it taken from in-house publications) is provided to facilitate that task.

The organization in which the department is embedded operated hundreds of restaurants in the United States and many foreign countries as well as provided services to a large number of franchise restaurants. Numerous sources described the organization as fast growing and financially successful.

The department had been in existence for over ten years at the time of the study and, like the organization, had been growing. During the period of time the study took place, the number of personnel increased by about ten percent.

The dominant orientation of the department was toward providing training programs that facilitate work at the restaurant level. Therefore, specialists in program development, new products, publications, international training and trainers had to rather intensively interface to ultimately deliver information to restaurant personnel. Particularly in the area of new products, the department had to also coordinate its activities with other corporate functions such as research and development, franchise operations, marketing, purchasing and information sources.

A unique contingency affecting the department was the geographic dispersion of the company's restaurants. This necessitated regional training centers which had to carefully coordinate their activities with corporate headquarters to insure that product and operational consistency were maintained at all restaurants.

The academic background of the personnel in the department were reported as business administration, education, communication and journalism. Areas of work experience were reported as restaurant management, personnel, counseling, training design, teaching and professional writing.

The department was part of the organization's human resources function and the head of the training department, the director, reported to a vice president of human resources. Under the director of training were a manager of publications, a senior manager of training
and a manager for the regional schools. Reporting to the senior manager of training were managers for the program development, new products and international training areas. Reporting to regional schools manager were the managers of each of the four regional schools. Each member from this level of management supervised a number of instructors. The span of control seems to be approximately 1: 4-6.
Think of your present work. What is it like most of the time? In the blank beside each word given below, write

Y for "YES" if, in general, it does describe your work
N for "NO" if, in general, it does not describe your work
？ if you cannot decide

| __ FASCINATING | __ USEFUL |
| __ ROUTINE    | __ TIRESOME |
| __ SATISFYING | __ HEALTHFUL |
| __ BORING     | __ CHALLENGING |
| __ GOOD       | __ ON YOUR FEET |
| __ CREATIVE   | __ FRUSTRATING |
| __ RESPECTED  | __ SIMPLE |
| __ HOT        | __ ENDLESS |
| __ PLEASANT   | __ GIVES A SENSE OF ACCOMPLISHMENT |
APPENDIX C

Think of management (i.e. the Director of Education and Training). In the blank beside each word given below, write

Y for "YES" if, in general, it does describe management
N for "NO" if, in general, it does not describe management
? if you cannot decide

__ ASKS MY ADVICE  __ LETS ME KNOW WHERE I STAND
__ HARD TO PLEASE  __ ANNOYING
__ IMPOLITE  __ STUBBORN
__ PRAISES GOOD WORK  __ KNOWS JOB WELL
__ TACTFUL  __ BAD
__ INFLUENTIAL  __ INTELLIGENT
__ UP-TO-DATE  __ LEAVES ME ON MY OWN
__ DOESN'T PROVIDE ENOUGH  __ LAZY
  JOB-RELATED INFORMATION
__ QUICK TEMPERED  __ AVAILABLE WHEN NEEDED
APPENDIX D-1

Consider the following statements about employees, management and communications. Think of "employees" as yourself and others on your level in the department. Think of "management" as the Director of Education and Training.

For each statement, circle one of the six responses below the statement that best describes how you feel about it.

1. MANAGEMENT IS INTERESTED IN EMPLOYEE IDEAS.
   disagree very / disagree / disagree / agree / agree / agree very
   strongly strongly strongly strongly strongly

2. MANAGEMENT IS AVAILABLE TO EMPLOYEES WHO HAVE QUESTIONS.
   disagree very / disagree / disagree / agree / agree / agree very
   strongly strongly strongly strongly strongly

3. WHEN EMPLOYEES GIVE GOOD IDEAS TO MANAGEMENT, THEY RECEIVE RECOGNITION FROM MANAGEMENT.
   disagree very / disagree / disagree / agree / agree / agree very
   strongly strongly strongly strongly strongly

4. MANAGEMENT IS INTERESTED IN EMPLOYEE QUESTIONS.
   disagree very / disagree / disagree / agree / agree / agree very
   strongly strongly strongly strongly strongly

5. EMPLOYEES CAN EXPRESS TRUE FEELINGS ABOUT THE DEPARTMENT TO MANAGEMENT WITHOUT BEING PENALIZED.
   disagree very / disagree / disagree / agree / agree / agree very
   strongly strongly strongly strongly strongly

6. MANAGEMENT IS AVAILABLE TO EMPLOYEES WHO HAVE IDEAS.
   disagree very / disagree / disagree / agree / agree / agree very
   strongly strongly strongly strongly strongly

-OVER-
APPENDIX D-2

7. MANAGEMENT TAKES ACTION ON INFORMATION INITIATED BY EMPLOYEES.

disagree very / disagree / disagree / agree / agree very strongly strongly

8. CONSIDERING OPPORTUNITIES TO SEND INFORMATION TO MANAGEMENT AS WELL AS MANAGEMENT'S RESPONSIVENESS TO THAT INFORMATION, EMPLOYEES ARE SATISFIED WITH THE COMMUNICATIONS THEY INITIATE WITH MANAGEMENT.

disagree very / disagree / disagree / agree / agree very strongly strongly strongly strongly
TO: Education and Training Department Personnel

FROM:

SUBJECT: Departmental Feedback

As you know, our Department is committed to meeting the changing education and training needs of the organization. To be most effective, it is important that planning and decision making take place with up-to-date information on all facets of the Department.

Over the next few months we will be soliciting your feedback on a number of issues important to the operation of Education and Training. Tom Coan from the Department of Communication at Ohio State will be assisting us in this process.

Enclosed is a brief questionnaire asking for some of your perceptions regarding your work, management and communication in our Department. Mr. Coan will receive and tabulate the responses and then make a summary available to each person in the Department.

Although the survey is an important source of information, it can only address a few topics at one point in time. We also want to implement a system to make it easier for you to get your timely input and questions to me on an 'as needed' basis. Details on its operation will be forthcoming. Additionally, we want to rerun the survey to look at what is changing in our Department.

Improved understanding of what is happening in Education and Training will help improve our performance. Your input is important and your anonymity is guaranteed so please respond.
Dear Education and Training Department Personnel,

Management has expressed to me a sincere interest in your responses to the enclosed survey items regarding your work, management and communication in your department. Please read the instructions to each section and respond in terms of how you genuinely feel about the topic most of the time. It should only take a few minutes. When you have completed the survey, put it in the stamped envelop addressed to me at Ohio State and put it in the mail.

After I have received the questionnaires, I will tabulate the responses and make a summary available to you as soon as possible.

Rest assured that you will not be identified in any way. Management is aware that only the averages of the group will be provided (your name is requested so that reminders can be sent, we would like the entire department to be represented in the summaries).

Management as well as myself have an interest in which perceptions (if any) change over time. A second survey will be sent to you in a few months and its results will also be made available to you.

If you have any questions, please feel free to contact me at the Department of Communication, 614-422-3400 or at home,

Thank you for taking part in the survey.

Sincerely,

Tom Coan
Dear Education and Training Department Personnel,

Thank you for your attention to the departmental survey last month. The number of returns and their thoroughness were very impressive. As promised, a summary of your responses follows.

I hope you will find the results interesting. If you have any questions or if you want to talk about the survey, feel free to contact me at the Department of Communication, 614-422-3400 or at home. I look forward to your future feedback.

Sincerely,

Tom Coan

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APPENDIX G-2

1. Management is interested in employee ideas.
   
   agree disagree (%)
   67 33

2. Management is available to employees who have questions.
   
   agree disagree
   82 12

3. When employees give good ideas to management, they receive recognition from management.
   
   agree disagree
   47 53

4. Management is interested in employee questions.
   
   agree disagree
   62 38

5. Employees can express true feelings about the department to management without being penalized.
   
   agree disagree
   47 53

6. Management is available to employees who have ideas.
   
   agree disagree
   82 18

7. Management takes action on information initiated by employees.
   
   agree disagree
   62 38

8. Considering opportunities to send information to management as well as management's responsiveness to that information, employees are satisfied with the communications they initiate with management.
   
   agree disagree
   42 58
APPENDIX H-1

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- 25-33% answered "cannot decide"
## APPENDIX H-3

1. **Management is interested in employee ideas.**
   - agree: 67%
   - disagree: 33%

2. **Management is available to employees who have questions.**
   - agree: 96%
   - disagree: 4%

3. **When employees give good ideas to management, they receive recognition from management.**
   - agree: 44%
   - disagree: 55%

4. **Management is interested in employee questions.**
   - agree: 68%
   - disagree: 32%

5. **Employees can express true feelings about the department to management without being penalized.**
   - agree: 56%
   - disagree: 44%
APPENDIX H-4

6. Management is available to employees who have ideas.

agree disagree
branch(%) 67 33
corporate(%) 87 13
total(%) 82 18

7. Management takes action on information initiated by employees.

agree disagree
branch(%) 44 56
corporate(%) 70 30
total(%) 62 38

8. Considering opportunities to send information to management as well as management's responsiveness to that information, employees are satisfied with the communications they initiate with management.

agree disagree
branch(%) 44 56
corporate(%) 41 59
total(%) 42 58
APPENDIX I

August 30, 1983

TO: Education and Training Department Personnel
FROM:
SUBJECT: Departmental Input System

As mentioned in my memo of July 13, we believe that keeping the flow of information and ideas going is vital to our Department's effectiveness. We want to institute a system to complement our existing communication network by making it easier for you to get your input and questions to me when you need to.

Starting today you will have access to Input Forms (a few are attached) on which you designate the type of input, the message and whether or not you want to be anonymous. You then send the form to Corporate Headquarters (write INPUT on the envelope). Tom Coan from Ohio State will detach your identifying information from the form (if you want to remain anonymous) and see to it that my response gets back to you. You can use the system as often as you wish.

We will examine the system's effectiveness by looking at the results of the next Department survey, the volume of responses moving through the system, the type of input and any changes in work procedures, etc. that might result then determine whether or not the program should be continued or adjusted.

We hope you will use the system to share ideas, to make your views known and to clarify your areas of concern.

Best regards,
ATTN:

This is a suggestion [ ]
question [ ]
comment [ ]

Do you want to remain anonymous? yes [ ] no [ ] (if yes, your name will be detached when your input is received and the response will be sent to your home).

Name:
Home Address:

Send this form to Education and Training at Corporate Headquarters,
Put the word INPUT on the envelope.

THANK YOU, YOUR INPUT IS A VALUABLE RESOURCE
October 13, 1983

TO: Education and Training Department Personnel

FROM:

SUBJECT: Departmental Input System

I want to remind you of the availability of the departmental input system. Please feel free to use it to get your questions, suggestions and comments to me on an as needed basis. A few extra forms are enclosed.

Best regards,
As an extension of the Departmental Survey a few months ago, we are very interested in determining which job perceptions are stable and which are changing. Enclosed is a brief questionnaire that again asks for some of your perceptions regarding work, management and communication in our Department. As with the first survey, Mr. Coan from Ohio State will receive and tabulate the responses and get a summary report back to you. Your feedback on this survey is important. Please respond.

Best regards,
October 26, 1983

Dear Education and Training Department Personnel,

Management has demonstrated a belief in the importance of your input on the Departmental Survey thus far and has indicated a strong interest in your upcoming responses. Please read the instructions to each section and respond in terms of how you currently feel about the topic. It should only take a few minutes. When you have completed the survey, return it to me at the University by using the stamped, addressed envelope.

As soon as I have received your surveys I will draw up a summary report and get it back to you.

As with the initial survey, I guarantee your anonymity. Only overall-group summaries will be provided to management.

Thank you in advance for responding. If you have any questions or comments, feel free to contact me at the address above or call me at 614-422-3400 (Department of Communication) or (home).

Sincerely,

Tom Coan
## APPENDIX N

Data Set (Upward Communication Satisfaction)

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### APPENDIX O

Data Set (Work Satisfaction)

| Remote Group | | | | Corporate Group | | | |
|--------------|--------------|--------------|--------------|-----------------|--------------|--------------|
| pretest      | posttest     | change       | pretest      | posttest     | change       |
| 42           | 45           | 3            | 36           | 38           | 2            |
| 34           | 42           | 8            | 27           | 36           | 9            |
| 30           | 15           | -15          | 39           | 18           | -21          |
| 39           | 33           | -6           | 37           | 35           | -2           |
| 31           | 18           | -13          | 40           | 36           | -4           |
| 29           | 30           | 1            | 27           | 28           | 1            |
| 48           | 42           | -6           | 38           | 39           | 1            |
| 35           | 36           | 1            | 33           | 35           | 2            |
| 45           | 45           | 0            | 32           | 34           | 2            |
|              |              |              | 32           | 30           | -2           |
|              |              |              | 48           | 41           | -7           |
|              |              |              | 42           | 36           | -6           |
|              |              |              | 28           | 37           | 9            |
|              |              |              | 35           | 18           | -17          |
|              |              |              | 30           | 41           | 11           |
|              |              |              | 37           | 39           | 2            |
|              |              |              | 39           | 40           | 1            |
|              |              |              | 45           | 45           | 0            |
|              |              |              | 45           | 39           | -6           |
|              |              |              | 17           | 13           | -4           |
|              |              |              | 41           | 37           | -4           |
|              |              |              | 39           | 33           | -6           |
## APPENDIX P

Data Set (Supervision Satisfaction)

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