

SOME PERSONALITY FACTORS IN ATTITUDE TOWARD
TECHNOLOGICAL CHANGE IN A MEDIUM SIZED
INSURANCE COMPANY

Thesis for the Degree of Ph. D.
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Gloria Cheek Kamenske
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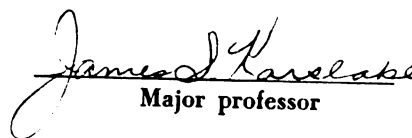
SOME PERSONALITY FACTORS IN ATTITUDE
TOWARD TECHNOLOGICAL CHANGE IN A
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ABSTRACT

SOME PERSONALITY FACTORS IN ATTITUDE TOWARD TECHNOLOGICAL CHANGE IN A MEDIUM SIZED INSURANCE COMPANY

by Gloria Cheek Kamenske

This study was designed to investigate the relationship of dogmatism and anxiety to attitude toward change both before and after technological change was introduced into an insurance company in the form of an IBM 650 computer, and to investigate the relationship of dogmatism and anxiety to five possible measures of reaction to change after introduction of the computer. Since the study was exploratory, other variables were measured and examined.

Data were collected via questionnaire administration a few weeks before and six months after the computer (with its resulting major changes in jobs, work flow and operational procedures) was introduced into the Home Office (N=170) and the Branch Office (N=74) of an insurance company.

Dogmatism was measured by eleven previously tested and scaled items taken from the Rokeach 40-item Dogmatism Scale. Attitude toward change was measured by nine items developed, tested, and scaled at the Michigan State University Labor and Industrial Relations Center. Anxiety was measured by two pretested items containing high face validity. Correlations were computed using Tetrachoric r and Phi coefficients where appropriate.

Attitude toward change remained constant after introduction of the computer. High dogmatism, high anxiety, and high dogmatism and anxiety in combination were found to be inversely related to a positive attitude toward change both before and after computer introduction. Concerning reaction to change, high dogmatism, high anxiety, and high dogmatism and anxiety in combination were found to be related to feeling that the computer was disrupting, taking a long time to get used to the computer, and not liking very much the fact that the computer had been installed. In addition, high anxiety was found to be related to being less satisfied with the job after introduction of the computer.

Dogmatism and anxiety were related to each other, and each was related to essentially the same attitudes toward and reactions to change.

Relationships found between variables in the home office were used to predict relationships in the branch office and comparisons of obtained with predicted relationships in the branch office did not support home office findings on reactions to change. However, relationships found between variables in the branch office were used to predict relationships in the home office and comparisons of obtained with predicted relationships in the home office, supported all of the branch office findings.

Exploring the relationship between several variables for all employees (N=244) showed high education related to low dogmatism, being male, being older, having a positive attitude toward change, and being less satisfied with the job. Male supervisors were more pleased than female supervisors about installation of the computer, but nonsupervisory

males were less pleased than females about installation of the computer. Women were found to be more anxious than men.

Findings of theoretical interest are that both dogmatic and anxious employees not only have a negative attitude about the concept of change, but show some negative reactions to technological change when it is introduced in their work environment.

Practical suggestions for company personnel officers are that the most preparation for technological change should be given to high dogmatic, nonsupervisory, anxious, young women with 12 years of education or less. Also, attention should be given to nonsupervisory males, who welcomed change but were not as pleased as other employees about the computer being installed after it was in. In addition, some attention should be paid to finding means to increase job satisfaction of male employees with higher education. These employees are likely to be valuable and in critical positions and their job satisfaction, although not directly related to technological change, should be of some concern to their company.

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IN A MEDIUM SIZED INSURANCE COMPANY

By

Gloria Cheek Kamenske

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This study is designed, in a limited way, to study the psychological, social and economic effects of technological change. It is part of a program of research in the School of Labor and Industrial Relations at Michigan State University.

I am particularly indebted to the School of Labor and Industrial Relations and its staff for providing the resources to make this study possible. When this study was undertaken, Dr. Jack Stieber was the Director of Research of the School of Labor and Industrial Relations and the study was directly supervised by Dr. Eugene H. Jacobson of the Department of Psychology and Dr. Einar Hardin of the Economics Department. These three people provided much valuable assistance in carrying out the study.

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CHAPTER I

INTRODUCTION

Technological change today is an issue of major importance to this nation and to the world. Although more efficient means of production in many kinds of work have been found for many years now by replacing hand work with machine work, the introduction and increasing use of automatic data processing equipment in the past decade has led to an enormous increase in mechanization of hand-tasks. With the increasing use of automatic data processing equipment, the term "automation" has gained a prominent place in the national vocabulary and has become a major issue of concern to the government, to employers, and to the working man.

As technological change has gained impetus, it has also gained national attention. This country has watched major strikes take place in shipping, automobile production and steel manufacturing over issues and grievances concerned with technological change. Unemployment has become a national problem and the increased proportion of the unemployed over the years has been blamed on either machines replacing men or the new technology changing skill requirements to a point where many members of the labor force no longer possess the skills necessary to hold jobs.

With the problem of unemployment and its corollary social problems in welfare and education, the government, social scientists and educators have begun to see the necessity to take action to ease the

impact of automation on the economy. The concern of the Federal Government with the manpower problems associated with automation and other technological changes is reflected in the Manpower Development and Training Act of 1962, in which Congress directed the Secretary of Labor to "evaluate the impact of, and benefits and problems created by automation, technological progress, and other changes in the structure of production and demand on the use of the Nation's resources, establish techniques and methods for detecting in advance the potential impact of such developments; develop solutions to these problems, and publish findings pertaining thereto" (69).

The National Education Association has published two volumes of collected papers by leading educators and social scientists on the problems of education brought about by technological change, and is encouraging research in this area (16, 75).

Where social issues arise and particularly where social consequences of the phenomena which cause technological change are harsh, applied social science has a clear duty to study and report behavior that may be expected to result from the phenomena, to identify correlates and modifiers of such behavior to the extent possible, and to suggest means of easing the impact of the phenomena on society and the individual.

As we shall see in the next chapter, although there has been widespread concern and publication in the past few years on the problems of technological change, to date there have been very few instances in which empirical research has been conducted to study the effects of technological change in a scientific manner.

The purpose of this study is to show how some personality factors are related to attitude toward technological change and reaction to technological change in the setting of an insurance company where major technological change was in the process of being introduced. The study is necessarily exploratory in nature, but to the extent that variables can be identified that affect attitude toward and reaction to technological change, an attempt will be made to suggest means by which these variables may be used to aid in understanding and perhaps easing the impact of automation.

CHAPTER II

PRIOR RESEARCH

The literature available to date on technological change is profuse and diverse. Articles on technological change have appeared in popular magazines, professional and technical journals, trade publications, books, and newspapers. Reports on the impact of automation range from the anecdotal to the statistical. The periods of time covered by reports vary from one-time studies done a few weeks after introduction of technological change, to longitudinal studies covering a span of many months both before and after automation has been established in the study setting. In addition, the type of place where technological change occurs varies widely from one report to another, and the stage of automation or mechanization already present in the study site differ markedly from one report to another.

In spite of the difficulties encountered in comparing publications, however, it is possible to find a certain order in the topics which they cover and a certain comparability in generalizations which they show on the basis of research or experience. The prior research cited in this paper has been rather strictly limited to literature containing reports of empirical research or descriptions of issues directly related to the effects of technological change in an office setting.

The articles listed in the bibliography of this thesis were found to be the most useful in supplying background, theoretical, or statistical information which were used in the research design of this study. For a more detailed listing of the literature concerning technological change in the office or in any setting, the reader is referred to an annotated bibliography by Cheek (8), the author of this thesis, and to two other highly informative annotated bibliographies by Hardin, Eddy and Deutsch (28), and the U. S. Department of Labor (74).

The effects of office automation on various aspects of employee attitudes and behavior have been reported by a number of authors (1, 3, 5, 6, 10, 11, 12, 17, 29, 34, 35, 36, 37, 39, 41, 43, 44, 46, 47, 48, 49, 51, 54, 56, 61, 62, 68, 70, 71). These studies have generally been of a descriptive nature. They have shown that the introduction of technological change in an office can cause changes in job satisfaction, in attitudes toward management, and in productivity. Employment levels within the office may change. (Generally, any unemployment effects of office automation are not immediately apparent since new machines are usually introduced in offices with an expanding business, the change to new machines may involve duplicate work during the transition, and employment effects are more likely to show up in failure to hire new personnel in the usual numbers over time.) In addition to the changes already mentioned, general studies of office automation have shown changes in skill requirements for employees and, in some cases, changes in the techniques of management.

The effects of office automation in insurance companies in particular have been reported by a few researchers (7, 25, 73). On the whole, these studies are like those dealing with office automation in

other forms of industry. That is, they describe the general methods of introduction of technological change in the insurance companies, the reaction of employees to these changes, and changes in job and skill requirements resulting from the introduction of office automation. They have shown that generally employment levels are maintained in the insurance companies, that the employees are aware of the change and hold differing attitudes toward it, that some jobs are eliminated, some jobs are changed to a considerable extent and some jobs are generally unchanged when automation is introduced, and that skill requirements for many jobs are changed . . . in some cases enough so that the employee who wishes to retain his own job must take part in a training program.

For a report of studies conducted by the Labor and Industrial Relations Center at Michigan State University in the series of investigations on the impact of automation in insurance companies, see: Faunce (19); Hardin (26, 27); Jacobson, Trumbo, Cheek and Nangle (38); Nangle (53); Stieber (64) and Trumbo (66, 67).

Specific findings from these latter studies will be cited as necessary in later discussions in this thesis. In general, the studies of the impact of technological change on office workers have shown that attitudes toward change can be quantified and that they vary among individuals; that job changes brought about by office automation can affect attitudes toward the job and can affect productivity; and that systematic differences in employee attitudes toward changes on the job can be related to certain variables such as age, sex and job satisfaction.

The traditional approach to the study of attitude change in the past has been by planned manipulation of communications. Nangle (53,

pp. 18-21) reviews the literature on this kind of research on attitude change. In this study, we are interested not in planned manipulation of communication, but in attitude change resulting from technological change in the work environment. Bennis (4), Coch and French (9), Craig (11), Faunce (18), Habbe (25), Hardin (26, 27), Hoos (34), Jacobson, Trumbo, Cheek and Nangle (38), Kahn and Morse (40), Krugman (43), Mann (46), Mann and Hoffman (47), Mann and Williams (48, 49), Megginson (51), Morse (52), Nangle (53), Passine (55), Rogers (58), Stewart (63), Stieber (64), and Trumbo (66, 67) have been concerned with this problem. Although the studies cited above found changes in attitude toward communication, supervision, fellow workers, and changes in job satisfaction, and related some of these changes not only to the introduction of automation, but to other variables such as age, sex, marital status, and education. Only two of the above authors, Rogers (58) and Trumbo (66), were concerned with personality as a variable affecting attitudes toward technological change. Trumbo found, in a study conducted after change had been introduced in an insurance company, that dogmatism tended to be inversely related to readiness for change. He also found that employees with high scores on a question about whether they were "jumpy or nervous" on the job, had lower readiness for change scores than other employees. Rogers, in an interview of 23 farmers in which he used interview questions to measure rigidity and orientation toward technological innovations, found no significant relationship between dogmatism and two measures of knowledge about farm technological innovations.

Herzberg, et al. (32), in his extensive review of studies on job attitudes, found little evidence of any relationship between

personality dimensions and job attitudes. The studies cited which deal at all with personality factors generally deal with personality as associated with job satisfaction. The personality factors studied have been inferiority by Quale (57), antagonism to parents and siblings by Friend and Haggard (20), and general maladjustment, extroversion and introversion, emotional instability, and nervous symptoms by Herzberg (32).

It may be concluded on the basis of a review of prior research literature that employee attitudes may be affected by situational factors, background factors, and the individual needs of employees.

.....

Anxiety is a state of inner tension. It may be a motive for setting up an ego defense. It may be free floating, manifesting itself as a "readiness for anxiety" as it does in anxiety neurosis, or it may be connected to a particular situation which represents the neurotic conflict as it does in anxiety hysteria.

Anxiety is operationally defined in this paper as being what the two items used in the questionnaire measure. These items ask whether things at work make the employee feel "jumpy" or "nervous", and ask whether things at work affect the employee's feelings much one way or the other. These items have been used and validated on several previous occasions(40)(52) and, although admittedly are a very small measure of anxiety, have proven themselves well enough in the past to be acceptable for use in this study. The items used are similar to (but not the same as) items used by Rokeach taken from the MMPI.

Rokeach (60) describes dogmatism as being a closed belief-disbelief system which represents a cognitive network of defenses against anxiety. He tested the relationship of dogmatism to anxiety using his 40 item Dogmatism Scale and a 30 item anxiety scale from the MMPI, on college students in New York, Michigan and England, and on industrial workers in England. All correlations between dogmatism and anxiety were positive and significant. The correlations ranged from .36 to .64, with the lowest correlation being for English industrial workers.

In studies by Rokeach (60) in New York and Michigan, dogmatism and anxiety were clearly shown to be parts of a single psychological factor, (which also included self-rejection and paranoid tendencies).

Rokeach and Bonier (60) found that, for subjects given the T.A.T. and the Dogmatism Scale, judges' ratings from the T.A.T. revealed more anxiety in stories told by the group higher on dogmatism. Content analysis further revealed a greater existence of threat themes and a greater need for closure in stories of subjects higher on dogmatism.

Rokeach speaks of dogmatism in its relationship to resistance to change which he shows to be true in part because resistance to change allays anxiety. He describes dogmatic thinking as referring to the resistance to change of systems of beliefs.

In this study, we have inferred the possibility that resistance to change may be manifested as an attitude toward change and that resistance to a system of beliefs may be similar to resistance to a technological innovation which should represent a need to change not only actions but beliefs.

CHAPTER III

THE HYPOTHESES

Since prior research has shown practically no attempts to correlate personality variables with reactions to technological change, this study will be exploratory in nature. However, an effort will be made to test the following hypotheses:

1. High dogmatism will be inversely related to a positive attitude toward change before technological change is introduced into the work situation.

2. High dogmatism will be inversely related to a positive attitude toward change after technological change is introduced into the work situation.

3. High dogmatism will be inversely related to a positive reaction to change after technological change is introduced into the work situation.

4. High anxiety will be inversely related to a positive attitude toward change before technological change is introduced into the work situation.

5. High anxiety will be inversely related to a positive attitude to change after technological change is introduced into the work situation.

6. High anxiety will be inversely related to a positive reaction to change after technological change is introduced into the work situation.

7. Dogmatism and anxiety will have a positive relationship.

8. Dogmatism and anxiety in combination will be inversely related to a positive attitude toward change before technological change is introduced into the work situation.

9. Dogmatism and anxiety in combination will be inversely related to a positive attitude toward change after technological change is introduced into the work situation.

10. Dogmatism and anxiety in combination will be inversely related to a positive reaction to change after technological change is introduced into the work situation.

■. Relationships will be explored between a number of specifically selected variables and attitude and reaction to change in order to add to information concerning such relationships and indicate promising areas for further research.

CHAPTER IV

METHODOLOGY

The Setting

A medium sized insurance company in the midwest was chosen for this study. It offered a unique opportunity to collect data both before and after introduction of electronic data processing equipment which was expected to cause a major change in the operation of the company. An insurance company was considered a good choice for a study of the effects of technological change in an office setting, since insurance companies and banks have been leaders in the use of electronic data processing equipment for office procedures.

The insurance company chosen has a home office in a small town in a rural area and has a branch office in a large industrial metropolitan area in the same state. The company has been in business since 1915 and started as a mutual automobile insurance company. It operates wholly within the state where it is located, although it is licensed to operate in one other state as well. The home office employs about 275 persons, the branch office about 120 persons, and about 35 employees are located in claims adjustment offices throughout the state.

The company is governed by a board of directors, an executive committee, and an operating committee. The president, executive vice-president, secretary, legal advisor, and treasurer of the company are on all three of the above-mentioned committees.

The branch office of the company is managed by four officers, with each of the four officers serving a year in turn as chairman of the branch office operating committee.

Early in 1957, the company management decided to install an International Business Machines (IBM) 650 digital computer¹ for electronic data processing. The business had been expanding, and the company management wanted to use the most up-to-date and efficient methods at their disposal for handling their work. In April of 1957, several employees were sent to IBM school to study the use of the computer, and during the Summer of 1957, building alterations were made in the home office to make room for the computer.

Although the company had been making some use of automatic data processing equipment (such as sorters, punchers, and printing machines), the introduction of the computer was an addition of some magnitude and cost and was expected to alter some jobs within the company to a great extent.

When the computer was installed in December of 1957, about two weeks were spent in equipment testing and program check-out. The computer was used for such tasks as checking premium computations performed by agents, computing premiums and assembling policy-declaration data for policies written in the home office. It was also used for compiling statistical and accounting reports.

¹The IBM 650 consists of three components: the Power Unit, the Read-Punch Unit, and the Console. Information is stored on a magnetic drum memory, and input-output is achieved by use of punch cards.

By the beginning of May, 1958, the checking of agents' computations and the processing of policies written in the home office were completely automated.²

The Population

The plan for this study called for using the total population of the insurance company except for members of top management, part-time employees, and employees who spent more than half of their working time outside of the company offices such as claims adjusters and agents.

This was a longitudinal study, involving a pretest and posttest, and as might be expected, some employees terminated employment and some employees were hired between testings. All those persons newly hired between pretest and posttest were excluded from this study. When comparisons between pretest and posttest data were made, those employees terminating employment between pretest and posttest were dropped from the population.

Table 1 shows the number of employees tested in the pretest and posttest and the number of employees who terminated employment between pre and post tests. The number of employees hired between pretest and posttest (but not included in this study) was 49. Over-all employment, at least, did not drop immediately in this insurance company as a result of the introduction of technological change in work procedures.

²For a discussion of the impact of the computer on procedures and work requirements in different departments of the company, see Hardin (26, 27).

TABLE 1
EMPLOYEE POPULATION INVOLVED IN RESEARCH

Employee Status	Pretest	Terminals	Posttest
Home Office			
Supervisory	35	2	33
Nonsupervisory	157	19	138
Branch Office			
Supervisory	15	1	14
Nonsupervisory	76	15	61
Total Number	283	37	246

As would be expected, the supervisory personnel of the insurance company were older than the nonsupervisory personnel. Table 2 shows that the greatest portion of nonsupervisory employees were under 29 years old, ^{or} female, ~~and~~ ^{or} high school graduates. This is typical of insurance company personnel. It is interesting to note that the branch office employees were younger than the home office employees and that the branch office employed more people who did not finish high school than did the home office.

In the home office, most of the men were married, and the men in the branch office were about evenly divided between married and unmarried. In the home office, the females were about evenly divided between married and unmarried, with slightly more being married than not. In the branch office, on the other hand, only one-third of the females were married. (Age is probably a relevant factor here. Since branch employees tend to be younger than home office employees, they probably had not reached the usual age for marriage, on the average.)

TABLE 2
SOME CHARACTERISTICS OF THE SURVEY POPULATION
(in percentages)

Characteristics	Home Office		Branch Office	
	Supervisors (N=35)	Nonsupervisors (N=157)	Supervisors (N=15)	Nonsupervisors (N=76)
Age				
Under 29	20.0	60.2	33.3	82.9
30 or over	80.0	39.8	66.7	17.1
Total	100.0	100.0	100.0	100.0
Sex				
Male	60.0	16.0	46.65	11.85
Female	40.0	84.0	53.35	88.15
Total	100.0	100.0	100.00	100.00
Marital Status				
Male, married	57.1	13.4	33.30	6.60
Male, other ^a	2.9	2.6	13.35	5.25
Female, married	25.7	45.9	33.30	22.40
Female, other ^a	14.3	38.1	20.05	65.75
Total	100.0	100.0	100.00	100.00
Education				
Less than 12 yrs.	. .	7.0	6.7	17.1
12 yrs. (high sch.)	42.9	77.7	46.7	65.8
Some col. or more	57.1	15.3	46.6	17.1
Total	100.0	100.0	100.0	100.0
Years with Company				
Less than 1 yr.	. .	19.1	6.6	36.8
1 to 6 years	28.6	62.4	60.0	63.2
More than 6 yrs.	71.4	18.5	33.4	. .
Total	100.0	100.0	100.0	100.0
Residential Background				
Farm	14.3	42.7	. .	2.6
Small town	54.3	38.2	6.7	13.2
City	28.6	17.2	93.3	84.2
N.A.	2.8	1.9	. .	. .
Total	100.0	100.0	100.0	100.0

^a"Other" includes "single," "separated," "divorced," and "widowed."

As might be expected, supervisory personnel had been with the company more years than nonsupervisory personnel in both the home office and the branch office. In the home office, 19.1 per cent of the non-supervisory employees had been with the company for less than 1 year at the time of the survey, but almost twice as many (36.8%) of the non-supervisory employees in the branch office had been with the company for less than a year at the time of the survey. It may be that the branch office, which was much newer than the home office, had been expanding business more rapidly in the last year than the home office and thus had hired more employees during that time period. This, coupled with the probability that turnover is higher in an office with more unmarried, young females, could account for the higher percentage of new employees in the branch office.

More than two-thirds of the employees of the home office were either from a farm or small town background, whereas nearly all of the branch office employees were from a city background. This is understandable, since the home office is located in a farm area in a small town and the branch office is located in a large city. Apparently most of the employees come from the areas surrounding their offices.

Procedure and Questionnaires

The experimental design called for a pretest questionnaire to be administered before installation of the IBM 650 computer in December of 1957 and a posttest questionnaire to be administered after installation of the computer. It was decided to administer the pretest on November 19, 1957 (three weeks prior to installation of the computer), and to administer the posttest 6 months after the pretest on

May 20, 1958 (five-and-one-half months after installation of the computer.)

The questionnaire was developed by a research team consisting of the author of this thesis and others at the School of Labor and Industrial Relations (then known as Labor and Industrial Relations Center . . . LIRC). Because different members of the team were interested in testing different hypotheses, the questionnaire contains many questions not needed to test the hypotheses put forth in this thesis. In general, the questionnaire covers employee perception of change, expectations about change, attitudes toward change, reports of supervisory practices, communication practices, personality, job satisfaction, group cohesiveness, and demographic and job related background data. (The questionnaires appear in the Appendix of this thesis.)

Questionnaires were pretested in the tabulating section of the administrative offices of Michigan State University, and interviews were held with employees to make certain that poor questions could be changed or eliminated. The questionnaires (supervisory and nonsupervisory forms) were then administered by the LIRC research team at another insurance company and this administration is reported by Trumbo (66). With some slight further modification based on these pretests of the questionnaire, the present forms of the questionnaire were developed. There are three forms: pretest, supervisory and non-supervisory, and posttest.

In April of 1957 all supervisory personnel were told by the company that the IBM 650 computer would be installed. In July of 1957, the employees began to receive information through formal channels (company newspaper, supervisory conference, etc.) that the computer

would be installed. Prior to the November administration of the questionnaire, a general notice was given in the company newspaper that research would be conducted in the company by a Michigan State University research team, and a letter was given to all employees from the company president explaining the survey in general terms and asking for employee cooperation (see Appendix A).

On the front of the supervisor and nonsupervisor forms of the questionnaire was a letter from the research team which explained the purpose of the study in general terms and asked for frank responses. Assurance was given of respondent anonymity. At the bottom of the cover letter was a strip of paper (called the "name ballot") which contained a space for the respondent's name and a prestamped code number which agreed with a prestamped code number on the questionnaire. Employees were asked to put their names on the name ballots, and to detach the name ballot from the questionnaire when the questionnaire was completed and to deposit the name ballot in a special box (clearly marked "Labor and Industrial Relations Center, Michigan State University") and their questionnaires in another box (also clearly labeled). Precautions were taken to let the employees see the boxes being taken away by the research team so no question would arise about whether or not company officials could identify answers with individuals. The research team intended (and successfully carried out) a dramatic assurance that no one could identify a person with his answers except Michigan State research people.

The pretest questionnaires were 37 pages long and the posttest questionnaire was 17 pages long. It was necessary to use as little of the company time as possible for collecting data, and so only essential

items were asked in the posttest and items which did not absolutely have to be repeated (such as personality items, some attitude items and most demographic data) were left out of the posttest questionnaire.

In the home office of the insurance company, the administration of the questionnaires was carried out in two separate sessions on the same day in the basement lunch room. Four persons sat at each table. Supervisors were separated from employees by an obvious distance to allow employees to feel more comfortable about answering questions about their supervisors and job satisfaction.

When all employees were assembled, the questionnaires and pencils were distributed. Instructions were then read aloud over a public address system. These instructions were:

I am _____ of the Labor and Industrial Relations Center at Michigan State University, and these are _____, _____ and _____ from the Labor and Industrial Relations Center. I suppose that all of you received a letter from us recently explaining the purpose of this survey and a little bit about what we hope you can do for us today. As you know, the Labor and Industrial Relations Center at Michigan State is carrying on a broad program of research having to do with people working together effectively in industrial organizations. Much of this research consists of getting the ideas and opinions of people about their jobs. We are asking you to fill out a questionnaire for us as a part of the series of studies dealing with insurance company employees in the Midwest. Your answers, along with those from people in other organizations that we have already surveyed and will survey in the future, will be analyzed to help us discover what things are most important in making the working situation better for the people in it. We would like to emphasize the third and fourth paragraphs of the cover letter that you have on your questionnaire. The conclusions that we draw about your attitude and opinions will be of value only to the extent that they reflect your really frank opinions and attitudes. As you can see on the bottom of the face sheet, we are asking you for your name. This is essential to us in order to properly analyze the questionnaire, but your name and number will be re-coded immediately after the survey and positively no one other than

the research workers at the Labor and Industrial Relations Center will ever be able in any way to identify you in connection with your answers. We absolutely guarantee that no one connected in any way with _____ will ever at any time be aware of how you answered the questionnaire.

We will be available to answer questions that you may have once you have started answering the questionnaire. Be sure to answer every question. When you have finished, tear off the bottom half of the face sheet and place your name in the ballot box and your questionnaire in the large box at the door as you leave. You may begin.

Two hours were allowed for completion of the questionnaire by each group. Most employees were finished within an hour. After the administration the "name ballots" were collected from their deposit box and the names of respondents were checked off by a member of the research team against a revised, up-to-date company payroll list so absentees could be identified.

On the same day (November 19, 1957), several members of the research team administered the questionnaire to branch office personnel. Because of space limitations at that location, employees took the questionnaire at their desks. Consequently, only one session was required. The same administrative procedures were followed with branch office personnel as with the home office.

On the following day research team members visited both the home and branch offices and administered the questionnaires to those who had been absent on the previous day or who could not take the questionnaire conveniently at the regularly scheduled time.

Essentially the same administrative procedures were followed on the posttest, which took place May 20, 1958.

CHAPTER V

PERSONALITY

Dogmatism

The personality measure used in this study to measure the variable of dogmatism is an abbreviated form of the Dogmatism Scale developed by Rokeach (60). Rokeach formally defines dogmatism as "(a) a relatively closed cognitive organization of beliefs and disbeliefs about reality, (b) organized around a central set of beliefs about absolute authority which, in turn, (c) provide a framework for patterns of intolerance and qualified tolerance toward others" (60, p. 3).

It is hypothesized that the closed nature of the belief system in a dogmatic person, and his intolerance in general, might well lead to a negative attitude toward change in his accepted work system.

Rokeach's Dogmatism Scale consists of 40 items with Likert-type multiple choice responses. On the Dogmatism Scale, subjects show whether they agree or disagree with the statements presented by checking the number which best expresses their opinion. Numbers and response choices are: +3 agree very much, +2 agree on the whole, +1 agree a little, -1 disagree a little, -2 disagree on the whole, -3 disagree very much. Item scores of from 1 to 7 are obtained by adding a constant of 4 to each code number. Dogmatism scores are sums of the 40 item scores.

Because of the limited time allotted to testing the insurance company employees and the fact that many variables had to be measured in the questionnaire administered, it was impossible to include the whole 40 item Dogmatism Scale in the questionnaire. Since Rokeach had reported detailed item analysis data on the dogmatism items in his Dogmatism Scale, it was possible to choose those items which were the most reliable and discriminating.

Three criteria were used in selection of the dogmatism items to be included in the questionnaire:

1. to choose items in nearly equal numbers from the three basic aspects of dogmatism as conceived by Rokeach (the cognitive structure of dogmatism, the formal cognitive content of dogmatism and the function of dogmatism);
2. to choose items which item analysis had shown to be most reliable and discriminating; and
3. to choose items that had face validity for the questionnaire. (That is, in a questionnaire which is asking questions about feelings about the job and self, such a question from the Dogmatism Scale as, "The United States and Russia have just about nothing in common," would have probably aroused either suspicion or anxiety in the insurance company employees about the purpose of the questionnaire so such items were not used.)

On the basis of the above three criteria, eleven items were selected to measure dogmatism on the questionnaire. The items were coded for IBM cards by assigning the numbers "6" (agree very much) to "1" (disagree very much) to the six alternatives. The code numbers were accepted as item scores to facilitate scoring. As a result, the

item scores range from one to six rather than from one to seven as in the full Dogmatism Scale.

Trumbo (66), using the 11 item dogmatism scale with another insurance company, analyzed the items for internal consistency by using upper and lower 27 per cent groups from the distribution of summated scores, obtaining mean item scores for the upper and lower groups and testing the difference between means by a t test. Every t value was found to be significant beyond the .01 level. Trumbo concluded that the item scores were consistently and highly related to the total scores for the 11 items and that the high internal consistency of the items allows the assumption that the items can be combined into a scale of the Likert variety by summing item scores.

The 11 items measuring dogmatism in the questionnaire included in this survey may be found in Appendix B (items VI-40 through VI-50).

Anxiety

Feelings of anxiety are hypothesized in this thesis as being related to both attitude toward and reaction to technological change. Two items to measure employee anxiety were given on the pretest (items III-52, 54, Appendix B), and one item to measure anxiety was given on the posttest (item III-15, Appendix B).

On the pretest, the items were, "Do things here at work ever make you feel 'jumpy' or nervous?" (and six Likert alternatives ranged from "Never" to "Very Often"), and "Frankly, most things that happen to me don't affect my feelings much one way or the other," (with six

Likert alternatives ranging from "I agree very much" to "I disagree very much"). On the posttest, the first item on the pretest above was repeated. It is not known whether these items are valid measures of anxiety or not. Face validity is depended on in this instance.

On the pretest, the anxiety score is the simple sum of the responses on the two items, with a high score indicating high anxiety.

CHAPTER VI

ATTITUDE TOWARD CHANGE

Nine items were chosen to measure attitude toward change. These items were written by members of the Labor and Industrial Relations Center research team which included the author of this thesis. Likert alternatives were given to each of nine statements in the attitude toward change scale. Choices on each item ranged from "1" (indicating resistance to change) to "5" (indicating readiness to accept change). The items are shown in Appendix B and appear as items I-56 and IV-40 through IV-47 on the supervisory and employee pretest forms and as items III-16 and I-39 through I-46 on the posttest form. Each of the nine items required responses of agreement or disagreement with statements expressing either positive statements about changes in the work situation or negative statements about such changes. The sum of the item scores was taken as the scale score.

Using a different insurance company, Trumbo (66) used the nine items and found that they formed a scale which he called the "Readiness for Change Scale." Nangle (53) used the same nine items as a "Readiness for Change Scale" on the same insurance company used in this study and did item analyses which showed that the items held up as a scale when used on a different group of employees.

The assumption is made here that ample proof has been submitted that the nine items chosen to measure attitude toward change in this study form a scale with high internal consistency.

Perhaps it is only a whim, but this author prefers to refer to the scale as an "Attitude toward Change Scale" rather than a "Readiness for Change Scale." It seems to better describe the feelings expressed in answering the scale items, and avoids difficult semantic problems when talking about scores on the posttest scale (after change has been introduced in the employment situation).

In order to test several hypotheses (see Chapter III), dogmatism, anxiety, and dogmatism and anxiety in combination will be compared with both pretest and posttest scores on attitude toward change.

CHAPTER VII

REACTION TO CHANGE

In his communication study in the same insurance company used in this study, Nangle (53) used the difference between pre and post test scores on the "Readiness for Change Scale" as his measure of reaction to change. This measure is not chosen in this study, because it seems such a change would only be a change in attitude toward change and although such a change could be considered one type of reaction to change, it is hypothesized that this measure is rather stable and will not be affected greatly by specific job changes. That is, it is considered an expression of personality by this author and would be expected to remain quite stable whether change external to the individual takes place or not. It must be noted, also, that although Nangle (53) found a significant difference between pre and post test scores on the "Readiness for Change Scale," the difference in means was small.

It is difficult to choose any one measure of reaction to change. Therefore, in this thesis, several reactions to change will be explored. Five possible reactions to change used in this study are as follows:

1. Change in job satisfaction. Question 11-37 on the posttest (see Appendix B) asks, "Considering everything, would you say you are now more satisfied or less satisfied with your job than you were six months ago?" Five Likert type answers are allowed, ranging from "Much

more satisfied now" to "Much less satisfied now." It is possible that reaction to change might be shown by change in job satisfaction as found in the answers to this question.

2. Another possible reaction to change is attitude toward the general effect of the changeover to the computer. Item 11-39 on the posttest (see Appendix B) measures this. Employees give their answers in terms of how "disrupting" the effect of the changeover to the computer was and their answers could be one index of reaction to change.

3. The length of time it takes employees to get used to the changeover to the computer may be a measure of another reaction to change. This is measured on the posttest by item 11-40 (see Appendix B).

4. Employee statements about changes which have taken place on their jobs could be another reaction to change. Items 11-43, 44 on the posttest (see Appendix B) measure reported job changes and employee attitudes about these changes.

5. A final possibility for a measure of reaction to change is employee feelings about installation of the computer. Item 11-38 on the posttest (see Appendix B) gives employees five alternatives from "Like very much" to "Dislike very much."

In order to test hypotheses 3, 6 and 10 in this study (see Chapter III), dogmatism and anxiety scores will be compared to all five of the above suggested measures of reaction to change.

CHAPTER VIII

RESULTS

Testing the Major Hypotheses

Appendix C gives the detailed procedure used for computations given in this chapter, and presents tables showing just how employees are divided on the variables being tested. In this chapter, employees in the "High Dogmatic Group" are those whose total scores on the dogmatism items (items VI-40 through VI-50, Appendix B) are above the median dogmatism score for their reference group. Employees in the "High Anxiety Group" are those whose total scores on the anxiety items (items II-52, 54, Appendix B) are above the median anxiety score for their reference group. Employees in the "High Dogmatism and Anxiety Combined Group" are those employees whose total dogmatism and total anxiety scores combined by simple addition are above the median dogmatism-anxiety score for their reference group.

For home office employees (N=170)³ the median dogmatism score was 42 (range 18 to 66), the median anxiety score was 8 (range 3 to 12), and the median dogmatism plus anxiety score was 49 (range 26 to 77). For branch office employees (N=74)⁴ the median dogmatism score was 42 (range 22 to 59), the median anxiety score was 8 (range 4 to 12), and the median dogmatism plus anxiety score was 50 (range 30 to 71).

³One home office employee with an incomplete questionnaire was dropped for the purpose of this analysis.

⁴One branch office employee with an incomplete questionnaire was dropped for the purpose of this analysis.

1. To test the first hypothesis, computation was made of the correlation between dogmatism and pre change attitude toward change as measured by total scores on pretest items (items I-56 and IV-40 through IV-47, Appendix B). Since the mean of pre change attitude toward change scores was 26.35 (standard deviation 5.94, range 13 to 41), high pre change attitude toward change consisted of employees with scores of 26 or above.

Tetrachoric $r = -.37$ (significant at the 1% level). Thus, the first hypothesis is supported. High dogmatism is inversely related to positive pre change attitude toward change.

2. To test the second hypothesis, computation was made of the correlation between dogmatism and post change attitude toward change as measured by total scores on posttest items (III-16 and I-39 through I-46, Appendix B). Since the mean of post change attitude toward change scores was 26.86 (standard deviation 6.12, range 12 to 43), high post change attitude toward change consisted of employees with scores of 27 or above.

Tetrachoric $r = -.47$ (significant at the 1% level). The second hypothesis is also supported. High dogmatism is inversely related to positive post change attitude toward change.

3. Testing the third hypothesis that "high dogmatism will be inversely related to a positive reaction to change after technological change is introduced into the work situation," involves comparing dogmatism scores with the five possible measures of reaction to change (a through e below) described in Chapter VII.

a. Change in job satisfaction.--Question II-37 (posttest, Appendix B) which asks employees whether they are more satisfied at

the time of the posttest than they were 6 months ago, was used for the measure of change in job satisfaction. Employees answering the change in job satisfaction question were divided into two groups: (1) those who said they were much more or more satisfied now than 6 months ago, and (2) those who said they were the same, less or much less satisfied now than 6 months ago. The correlation between dogmatism and change in job satisfaction was computed.

Tetrachoric $r = 0$ (not significant). If change in job satisfaction after introduction of technological change into the work situation can be considered a measure of reaction to change, then the hypothesis that high dogmatism will be inversely related to a positive reaction to change is not upheld.

b. Extent computer is felt to be disrupting.--This question (item 11-39, posttest, Appendix B) reads, "What was the general effect of the changeover to the new computer" and five alternatives range from "It was not disrupting at all" to "It was very disrupting." Employees were divided into a group which answered "slightly, quite or very disrupting" and a group which answered "not disrupting at all or have no idea." The correlation between dogmatism and the perceived disrupting effect of the computer was computed.

Tetrachoric $r = -.31$ (significant at the 1% level). If not finding the changeover to the new computer disrupting can be considered a measure of positive reaction to change, then the hypothesis that high dogmatism will be inversely related to a positive reaction to change is supported.

c. Length of time employees take to get used to the changeover to the computer.--On item 11-40 (posttest, Appendix B) employees were

asked how long it took them to get used to the change brought on by the computer, and had six alternatives ranging from "No more than one week" to "Not really used to it yet." Employees were divided into two groups, one which answered "Up to one month, or not affected" and one group whose answers ranged from "More than a month" up to "Not used to it yet." The correlation between dogmatism and length of time employees take to get used to the changeover to the computer was computed.

Tetrachoric $r = -.31$ (significant at the 1% level). Thus, if taking a long time to get used to change brought on by the computer can be considered a negative reaction to change, then the hypothesis that high dogmatism will be inversely related to a positive reaction to change is supported.

d. Feeling about changes which had or had not taken place on the job.--Employees were asked (items 11-43, 44 posttest, Appendix B), whether they had been promoted or transferred and whether or not their jobs had undergone considerable, some, slight, or no change as a result of the introduction of a computer into the company. They were given a series of alternatives to show how they felt about the change (or lack of change) on their jobs. These alternatives ranged from "Like very much" to "Dislike very much." Employees were divided into two groups depending on whether they said they "Had experienced change and disliked it or had not experienced change and liked it" or said they "Had experienced change and liked it or had not experienced change and disliked it." The correlation between dogmatism and feelings about changes which had or had not taken place on the job was computed.

Tetrachoric $r = 0$ (not significant). If experiencing change and liking it or not experiencing change and disliking it can be

considered a measure of positive reaction to change, then the hypothesis that high dogmatism will be inversely related to a positive reaction to change is not supported on this measure.

e. Feeling about installation of the computer.--Employees were asked (item 11-38, posttest, Appendix B), "What is your general feeling about the fact that the company has installed a computer?" There were six possible alternatives ranging from "I like it very much" to "I dislike it very much." Those employees who stated they "Liked it very much" were placed in one group, and employees choosing the other alternatives were placed in another group. The correlation between dogmatism and feeling about installation of the computer was computed.

Tetrachoric $r = -.30$ (significant at the 1% level). If liking the fact that the company installed a computer very much is a measure of a positive reaction to change, then the hypothesis that high dogmatism will be inversely related to a positive reaction to change is supported.

Table 3 summarizes home office results so far and shows that high dogmatism is inversely related to a positive attitude toward change both before and after technological change is introduced into the work situation and that three out of five suggested measures of reaction to change support the hypothesis that high dogmatism will be inversely related to a positive reaction to change after technological change is introduced into the work situation.

TABLE 3

SUMMARY OF CORRELATIONS BETWEEN DOGMATISM AND BOTH
ATTITUDE TOWARD CHANGE AND REACTION TO CHANGE
IN THE HOME OFFICE (N=170)

Positive Attitude and Reaction to Change	High Dogmatism	
	r	Significance Level
<u>Attitude</u>		
Pre change	-.37	1%
Post change	-.47	1%
<u>Reaction</u>		
Change in job satisfaction	0	not significant
Extent computer felt to be disrupting	-.31	1%
Length of time taken to get used to computer	-.31	1%
Feeling about changes which had or had not taken place	0	not significant
Feeling about installation of computer	-.30	1%

In order to check results obtained in the home office on the relationship between dogmatism and both attitude toward and reaction to change, computations were made using relationships found between dogmatism and attitude toward and reaction to change in the home office to predict scores on the variables for each individual in the branch office and then showing the relationship between predicted and observed scores for branch office employees.

Attitude Toward Change

The correlation between predicted and observed relationships for pre change attitude toward change as predicted by dogmatism yielded a phi coefficient of $+.40$.

The correlation between predicted and observed relationships for post change attitude toward change as predicted by dogmatism yielded a phi coefficient of $+.35$.

Reaction to Change

Prediction was not made for change in job satisfaction or feeling about change which had or had not taken place on the job because no significant relationship was found between dogmatism and these variables in the home office.

The correlation between predicted and observed relationships for the extent the computer is felt to be disrupting as predicted by dogmatism was a phi of $+.06$.

The correlation between predicted and observed relationships for the length of time taken to get used to the computer as predicted by dogmatism was a phi of $+.04$.

The correlations between predicted and observed relationships for feeling about installation of the computer as predicted by dogmatism was a phi of $+.25$.

Thus, in the branch office, relationships between predicted and observed variables were ~~positive and sometimes~~ greater than zero, which supports the hypotheses concerning the inverse relationships between dogmatism and ~~attitude toward but not~~ reaction to change. (See Appendix D for a discussion of the above phi coefficients.) (Also See Appendix D for predictions from branch to home).

4. To test the fourth hypothesis, the correlation between anxiety and pre change attitude toward change was computed.

Tetrachoric $r = -.27$ (significant at the 2% level). The hypothesis that high anxiety will be inversely related to a positive attitude toward change before technological change is introduced into the work situation is supported.

5. The correlation between anxiety and post change attitude toward change was computed to test the fifth hypothesis.

Tetrachoric $r = -.41$ (significant at the 1% level). The hypothesis that high anxiety will be inversely related to a positive attitude toward change after technological change is introduced into the work situation is supported.

6. The correlation between anxiety and each of the five suggested measures of reaction to change was computed to test the sixth hypothesis.

a. Change in job satisfaction.--The correlation between anxiety and change in job satisfaction after introduction of the computer was computed.

Tetrachoric $r = -.75$ (significant at the 1% level). If being more satisfied after introduction of the computer than before can be considered a measure of a positive reaction to change, then the hypothesis that high anxiety will be inversely related to a positive reaction to change after technological change is introduced into the work situation is supported.

b. Extent computer felt to be disrupting.--The correlation between anxiety and feelings about introduction of the computer into the work situation was computed.

Tetrachoric $r = -.27$ (significant at the 2% level). If not finding the changeover to the new computer disrupting can be considered a positive reaction to change, then the hypothesis that high anxiety will be inversely related to a positive reaction to change is supported.

c. Length of time taken to get used to the computer.--The correlation between anxiety and the length of time taken to get used to the computer after its introduction into the work situation was computed.

Tetrachoric $r = -.44$ (significant at the 1% level). If taking a long time to get used to change brought on by the computer can be considered a negative reaction to change, then the hypothesis that high anxiety will be inversely related to a positive reaction to change is supported.

d. Feeling about changes which had or had not taken place on the job. The correlation between anxiety and feeling about changes which had or had not taken place on the job was computed.

Tetrachoric $r = -.03$ (not significant). If experiencing change and liking it or not experiencing change and disliking it can be considered a measure of positive reaction to change, then the hypothesis that high anxiety will be inversely related to a positive reaction to change is not supported.

e. Feeling about installation of the computer. The correlation between anxiety and feeling about installation of the computer was computed.

Tetrachoric $r = -.40$ (significant at the 1% level). If liking the fact that the company installed a computer is a measure of a positive reaction to change, then the hypothesis that high anxiety will be inversely related to a positive reaction to change is supported.

Table 4 summarizes home office results showing that high anxiety is inversely related to a positive attitude toward change both before and after technological change is introduced into the work situation and that four out of five suggested measures of reaction to change support the hypothesis that high anxiety will be inversely related to a positive reaction to change after technological change is introduced into the work situation.

TABLE 4
SUMMARY OF CORRELATIONS BETWEEN ANXIETY AND BOTH
ATTITUDE TOWARD CHANGE AND REACTION TO CHANGE
IN THE HOME OFFICE (N=170)

Positive Attitude and Reaction to Change	High Anxiety	
	r	Significance Level
<u>Attitude</u>		
Pre change	-.27	2%
Post change	-.41	1%
<u>Reaction</u>		
Change in job satisfaction	-.75	1%
Extent computer felt to be disrupting	-.27	2%
Length of time taken to get used to computer	-.44	1%
Feeling about changes which had or had not taken place	-.03	not significant
Feeling about installation of computer	-.40	1%

In order to check results obtained in the home office on the relationship between anxiety and both attitude toward and reaction to change, computations were made using relationships found between anxiety and attitude toward and reaction to change in the home office to predict scores on the variables for each individual in the branch office and then showing the relationship between predicted and observed scores for branch office employees.

Attitude Toward Change

The correlation between predicted and observed relationships for pre change attitude toward change as predicted by anxiety yielded a phi coefficient of $+0.20$.

The correlation between predicted and observed relationships for post change attitude toward change as predicted by anxiety yielded a phi coefficient of $+0.24$.

Reaction to Change

Prediction was not made for feeling about change which had or had not taken place on the job because no significant relationship was found between anxiety and this variable in the home office.

The correlation between predicted and observed relationships for change in job satisfaction as predicted by anxiety was a phi of $+0.11$.

The correlation between predicted and observed relationships for the extent the computer is felt to be disrupting as predicted by anxiety was a phi of $+0.11$.

The correlation between predicted and observed relationships for the length of time taken to get used to the computer as predicted by anxiety was a phi of $+.12$.

The correlation between predicted and observed relationships for feeling about installation of the computer as predicted by anxiety was a phi of $+.12$.

Thus, in the branch office, relationships between predicted and observed variables were found to be positive and ~~sometimes greater~~ than zero, which supports the hypotheses concerning the inverse relationships between anxiety and ~~attitude toward but~~ not reaction to change. (See Appendix D for a discussion of the above phi coefficients.)

7. In order to test the hypothesis that dogmatism and anxiety will have a positive relationship, the correlation between dogmatism and anxiety was computed. Anxiety scores were used to split employees into two groups at the median score of 8 and dogmatism scores were designated high dogmatism if they were 42 or above, and low dogmatism if they were 41 or below.

In the home office, tetrachoric $r = +.49$ (significant at the 1% level). Thus, the hypothesis that dogmatism and anxiety will have a positive relationship to one another was supported.

In order to check the relationship found in the home office between dogmatism and anxiety, computations were made using relationships between dogmatism and anxiety in the home office to predict scores on the variables for each individual in the branch office and then showing the relationship between predicted and observed scores for branch office employees. The correlation between predicted and observed relationships for anxiety as predicted by dogmatism yielded

a phi coefficient of +.13. Since this coefficient was positive and greater than zero, it was concluded that branch office data support the hypothesis that dogmatism and anxiety are related.

8. In order to test the hypothesis that dogmatism and anxiety in combination will be inversely related to a positive attitude toward change before technological change is introduced into the work situation, the correlation between dogmatism and anxiety combined and pre change attitude toward change was computed.

Tetrachoric $r = -.27$ (significant at the 5% level). The hypothesis that high dogmatism and anxiety in combination will be inversely related to a positive attitude toward change before technological change is introduced into the work situation is supported.

9. To test the hypothesis that dogmatism and anxiety in combination will be inversely related to a positive attitude toward change after technological change is introduced into the work situation, the correlation between dogmatism and anxiety in combination and post change attitude toward change was computed.

Tetrachoric $r = -.38$ (significant at the 1% level). The hypothesis that high dogmatism and anxiety in combination will be inversely related to a positive attitude toward change after technological change is introduced into the work situation is supported.

10. The correlations between dogmatism and anxiety in combination and the five suggested measures of reaction to change were computed.

a. Change in job satisfaction.--The correlation between dogmatism and anxiety in combination and change in job satisfaction after introduction of the computer was computed.

Tetrachoric $r = +.15$ (not significant). If being more satisfied after introduction of the computer than before can be considered a measure of a positive reaction to change, then the hypothesis that high anxiety will be inversely related to a positive reaction to change after technological change is introduced into the work situation is not supported.

b. Extent computer felt to be disrupting.--The correlation between dogmatism and anxiety in combination and feelings about introduction of the computer into the work situation was computed.

Tetrachoric $r = -.27$ (significant at the 2% level). If not finding the changeover to the new computer disrupting can be considered a positive reaction to change, then the hypothesis that high dogmatism and anxiety in combination will be inversely related to a positive reaction to change is supported.

c. Length of time taken to get used to the computer.--The correlation between dogmatism and anxiety in combination and the length of time taken to get used to the computer after its introduction into the work situation was computed.

Tetrachoric $r = -.35$ (significant at the 1% level). If taking a long time to get used to change brought on by the computer can be considered a negative reaction to change, then the hypothesis that high dogmatism and anxiety in combination will be inversely related to a positive reaction to change is supported.

d. Feeling about changes which had or had not taken place on the job.--The correlation between dogmatism and anxiety in combination and feeling about changes which had or had not taken place on the job was computed.

Tetrachoric $r = +.09$ (not significant). If experiencing change and liking it or not experiencing change and disliking it can be considered a measure of positive reaction to change, then the hypothesis that high dogmatism and anxiety in combination will be inversely related to a positive reaction to change is not supported.

e. Feeling about installation of the computer.--The correlation between dogmatism and anxiety in combination and feeling about installation of the computer was computed.

Tetrachoric $r = -.31$ (significant at the 1% level). If liking the fact that the company installed a computer very much is a measure of a positive reaction to change, then the hypothesis that high anxiety will be inversely related to a positive reaction to change is supported.

Table 5 summarizes home office results showing that high dogmatism and anxiety in combination are inversely related to a positive attitude toward change both before and after technological change is introduced into the work situation and that three out of five suggested measures of reaction to change support the hypothesis that high dogmatism and anxiety in combination will be inversely related to a positive reaction to change after technological change is introduced into the work situation.

TABLE 5

SUMMARY OF CORRELATIONS BETWEEN DOGMATISM AND ANXIETY IN COMBINATION
AND BOTH ATTITUDE TOWARD CHANGE AND REACTION TO CHANGE
IN THE HOME OFFICE (N=170)

Positive Attitude and Reaction to Change	High Dogmatism and Anxiety	
	r	Significance Level
<u>Attitude</u>		
Pre change	-.27	5%
Post change	-.38	1%
<u>Reaction</u>		
Change in job satisfaction	+.15	not significant
Extent computer felt to be disrupting	-.27	2%
Length of time taken to get used to computer	-.35	1%
Feeling about changes which had or had not taken place	+.09	not significant
Feeling about installation of computer	-.31	1%

In order to check results obtained in the home office on the relationship between dogmatism and anxiety combined with both attitude toward and reaction to change, computations were made using relationships found between dogmatism and attitude toward and reaction to change in the home office to predict scores on the variables for each individual in the branch office and then showing the relationship between predicted and observed scores for branch office employees.

Attitude Toward Change

The correlation between predicted and observed relationships for pre change attitude toward change as predicted by dogmatism and anxiety in combination was a phi of $+0.35$.

The correlation between predicted and observed relationships for post change attitude toward change as predicted by dogmatism and anxiety in combination was a phi of $+0.29$.

Reaction to Change

Prediction was not made for change in job satisfaction or feeling about change which had or had not taken place on the job because no significant relationship was found between dogmatism and anxiety in combination and these variables in the home office.

The correlation between predicted and observed relationships for the extent the computer is felt to be disrupting as predicted by dogmatism and anxiety in combination was a phi of $+0.06$.

The correlation between predicted and observed relationships for the length of time taken to get used to the computer as predicted by dogmatism and anxiety in combination was a phi of $+0.04$.

The correlation between predicted and observed relationships for feeling about installation of the computer as predicted by dogmatism and anxiety in combination was a phi of $+0.25$.

Thus, in the branch office, relationships between predicted and observed variables were found to be positive and ~~sometimes greater than~~ zero, which supports the hypotheses concerning the inverse relationships between dogmatism and anxiety in combination and ~~attitude toward~~ ~~but not~~ reaction to change. (See Appendix D for a discussion of the above phi coefficients.)

Table 6 gives a visual summary of the results of testing the first ten hypotheses in both the home and branch offices.

TABLE 6

SUMMARY OF HOME OFFICE CORRELATIONS AND BRANCH OFFICE PREDICTIONS FOR THE RELATIONSHIP BETWEEN DOGMATISM (D), ANXIETY (A), DOGMATISM AND ANXIETY IN COMBINATION (D&A), AND BOTH ATTITUDE TOWARD CHANGE AND REACTION TO CHANGE

Positive Attitude and Reaction to Change	Home Office (N=170)			Branch Office (N=74)		
	Correlations			Predictions ^a		
	D	A	D&A	D	A	D&A
<u>Attitude</u>						
Pre change	-.37**	-.27*	-.27*	B	B	B
Post change	-.47**	-.41**	-.38**	B	B	B
<u>Reaction</u>						
Change in job satisfaction	0	-.75**	+.15	. .	a	. .
Extent computer felt to be disrupting	-.31**	-.27*	-.27*	a	a	a
Length of time taken to get used to computer	-.31**	-.44**	-.35**	a	a	a
Feeling about changes which had or had not taken place on job	0	-.03	+.09	. .	. .	. .
Feeling about installation of computer	-.30**	-.40**	-.31**	B	a	B

** = significant at the 1% level or higher.

* = significant at the 5% level or higher.

B = hypothesis upheld in branch office.

. . = prediction not made for branch office.

^a(See Appendix D for a discussion of predictions made in the branch office.)

Exploring Other Relationships Between Variables

■. The remainder of this chapter will be devoted to exploration of the relationships between a number of specifically selected variables in order to add to information concerning such relationships and perhaps indicate promising areas for further research.

Appendix C gives descriptions of statistical procedures used and shows tables of data relating to the variables described on the following pages. For the remaining analyses in this chapter, home office and branch office data were combined, making the total number of employees used 244. Of the 244 employees, 46 were supervisors and 198 were nonsupervisory employees.

On each variable considered, data were examined separately for supervisors, nonsupervisors, and the total group of employees. On the whole, however, attention was paid to the whole group of employees and data will be mentioned for supervisory personnel only where it seems appropriate and meaningful to do so. Unless otherwise indicated, correlations given will be for the total group of employees.

a. Testing the relationship between several variables and dogmatism.--

Dogmatism and sex were found to be related. $\Phi = .17$, Chi Square = 7.05 (significant at the 1% level). A significantly greater proportion of women were found to be high dogmatics than men.

Dogmatism and age were found to be related. Tetrachoric $r = .30$ (significant at the 1% level). Younger employees tended to be higher on dogmatism than older employees.

Dogmatism and education were found to be related. Tetrachoric $r = .46$ for supervisors and $.25$ for the total group (significant at the 5% level for both correlations). Employees with less education were found to be higher on dogmatism.

No significant relationship was found between dogmatism and either pre change job satisfaction or post change job satisfaction.

b. Testing the relationship between several variables and anxiety.--

Anxiety and sex were found to be related. $\Phi = .28$, Chi Square = 19.52 (significant at the 1% level). Women were more anxious than men.

Anxiety was not found to be related to either age or education.

Relationships between anxiety and both pre change and post change job satisfaction were found to be significant for supervisors, nonsupervisors and the total group of employees. For the total group, tetrachoric $r = .64$ (significant at the 1% level) on pre change job satisfaction, and tetrachoric $r = .43$ (significant at the 1% level) on post change job satisfaction. Those who were less satisfied with their jobs were more anxious than those who were more satisfied with their jobs.

c. Testing the relationship between several variables and pre change attitude toward change.⁵

Pre change attitude toward change and sex were found to be related. $\Phi = .18$, Chi Square = 7.90 (significant at the 1% level).

⁵ As shown in Appendix C, pre and post change attitude toward change were positively correlated and no significant difference was found in their means. Thus, only pre change attitude toward change is used with the exploratory data.

A greater proportion of men than women had a high pre change attitude toward change.

Although pre change attitude toward change and age were not found to be related for the nonsupervisory or total group of employees, they were found to be related in the supervisory group. Tetrachoric $r = .57$ (significant at the 1% level). Among supervisors, older supervisors had a higher pre change attitude toward change than younger supervisors.

Pre change attitude toward change was found to be significantly related to education. Tetrachoric $r = .40$ (significant at the 1% level). A greater proportion of employees who had some college or more also had a higher pre change attitude toward change than employees with 12 years of school or less.

Pre change attitude toward change was also found to be significantly related to change in job satisfaction after introduction of the computer. Tetrachoric $r = .22$ (significant at the 5% level). A greater proportion of those with a high pre change attitude toward change said they were more satisfied after introduction of the computer than did other employees.

No significant relationships were found between pre change attitude toward change and pre or post change job satisfaction, extent computer was felt to be disrupting, or length of time taken to get used to the computer.

A significant relationship was found between feeling about changes which had or had not taken place on the job and pre change attitude toward change for the supervisory group, but not for the nonsupervisory or total group of employees. Among supervisors, a

greater proportion of those who declared after installation of the computer that they had experienced change and disliked it or not experienced change and liked it had had a higher pre change attitude toward change than other supervisors. Tetrachoric $r = .41$ (significant at the 5% level).

A significant relationship was also found between pre change attitude toward change and feeling about installation of the computer. Tetrachoric $r = .49$ (significant at the 1% level). A greater proportion of those who said they liked very much the fact that the computer had been installed also had a higher pre change attitude toward change than did those who did not like the installation of the computer so much.

d. Testing the relationship between several variables and age.--

A significant relationship was found between age and sex. $\Phi = .27$, Chi Square = 22.19 (significant at the 1% level). A greater proportion of men were older than women were.

Age and education were found to be related. Tetrachoric $r = .45$ (significant at the 1% level). A greater proportion of older employees had higher education than did younger employees.

Age was also found to be related to the length of time taken to get used to the computer for nonsupervisory employees only. Tetrachoric $r = .69$ (significant at the 1% level). A greater proportion of younger nonsupervisory employees said they took less time to get used to the computer than did the older employees.

No significant relationship was found between age and pre or post change job satisfaction, extent computer was felt to be disrupting,

feeling about changes which had or had not taken place on the job, or feeling about installation of the computer.

e. Testing the relationship between several variables and sex.--

A significant relationship was found between sex and education for supervisors, nonsupervisors and the total employee group. For the total group, $\phi = .39$, Chi Square = 37.11 (significant at the 1% level). A greater proportion of the males had some college or more than did females.

No significant relationship was found between sex and post change job satisfaction, the length of time taken to get used to the computer, or feeling about changes which had or had not taken place on the job.

A significant relationship was found between sex and the extent the computer was felt to be disrupting. $\phi = .14$, Chi Square = 4.78 (significant at the 5% level). A greater proportion of women felt the computer was more disrupting than did men.

Sex was found to be related to feeling about installation of the computer. For the supervisors, $\phi = .32$, Chi Square = 4.71 (significant at the 5% level). Among supervisors, a greater proportion of men said they liked the fact that the computer had been installed than did women. However, for nonsupervisory personnel and for the total group of employees, the relationship was reversed. For non-supervisory personnel, $\phi = .15$, Chi Square = 4.46 (significant at the 5% level) and a greater proportion of women said they liked the fact that the computer had been installed than did men.

f. Testing the relationship between several variables and education.--

A significant relationship was found between education and both pre change and post change job satisfaction. For pre change job satisfaction, tetrachoric $r = .34$ (significant at the 1% level) and for post change job satisfaction, tetrachoric $r = .19$ (significant at the 5% level). A greater proportion of those with higher education said they were less satisfied with their jobs than did those with less education.

No significant relationship was found between education and the extent the computer was felt to be disrupting, the length of time taken to get used to the computer, or feeling about changes which had or had not taken place on the job.

A significant relationship was found between education and feeling about installation of the computer. For supervisors, tetrachoric $r = .58$ (significant at the 5% level) and a greater proportion of supervisors with high education said they liked the fact that the computer had been installed very much. However, the relationship was reversed for nonsupervisory personnel. Tetrachoric $r = .35$ (significant at the 5% level) and a greater proportion of employees with 12 years of school or less said they liked very much the fact that the computer had been installed.

g. Testing the relationship between several variables and pre change job satisfaction.--

A significant relationship was found between pre change job satisfaction and sex. $\Phi = .13$, Chi Square = 4.12 (significant at the 5% level). A greater proportion of males were less satisfied with their jobs than females.

There was a significant relationship between pre change and post change job satisfaction. Tetrachoric $r = .44$ (significant at the 1% level). Those who had high job satisfaction before installation of the computer also tended to have high job satisfaction after installation of the computer.

There was also a significant relationship between pre change job satisfaction and change in job satisfaction after installation of the computer. Tetrachoric $r = .27$ (significant at the 5% level). A greater proportion of those who had high job satisfaction before installation of the computer said they were more satisfied after installation of the computer than they had been before.

No significant relationships were found between pre change job satisfaction and extent computer was felt to be disrupting, length of time taken to get used to computer, feeling about changes which had or had not taken place on the job, or feeling about installation of the computer.

h. Testing the relationship between several variables and change in job satisfaction after installation of the computer.--

A significant relationship was found between change in job satisfaction after installation of the computer and the extent the computer was felt to be disrupting. Tetrachoric $r = .24$ (significant at the 5% level). A greater proportion of those who said they were less satisfied now than they were 6 months ago also said they found the installation of the computer to be more disrupting than did other employees.

A significant relationship was also found between change in job satisfaction and feeling about changes which had or had not taken

place on the job. Tetrachoric $r = .32$ (significant at the 5% level).

A greater proportion of those who said they were more satisfied now than they were 6 months ago also said they had either experienced change and liked it or had not experienced change and disliked it.

No significant relationship was found between change in job satisfaction and age, sex, education, length of time taken to get used to the computer, or feeling about installation of the computer.

Table 7 gives a summary sketch of relationships found in the exploratory section of this chapter.

TABLE 7
SUMMARY OF SIGNIFICANT RELATIONSHIPS FOUND IN EXPLORATORY DATA
USING BOTH HOME AND BRANCH OFFICE EMPLOYEES (N=244)

Variables	Variables							
	Dogmatism	Anxiety	Pre change to attitude to change	Sex	Age	Education	Pre change job Satisfaction	Change in job Satisfaction
Sex	S	S	S	. .	S	S	S	n
Age	S	n	(S)	S	. .	S	n	n
Education	S	n	S	S	S	. .	S	n
Pre change job satisfaction	n	S	n	S	n	S	. .	S
Post change job satisfaction	n	S	n	n	n	S	S	. .
Change in job satisfaction	. .	. .	S	n	n	n	S	. .
Extent computer felt to be disrupting	. .	. .	n	S	n	n	n	S
Length of time taken to get used to computer	. .	. .	n	n	(S)	n	n	n
Feeling about changes which had or had not taken place on job	. .	. .	(S)	n	n	n	n	S
Feeling about installation of computer	. .	. .	S	(S)	n	(S)	n	n

S = significant relationship.

n = not a significant relationship.

(S) = change in significance depending on occupational breakdown.

CHAPTER IX

SUMMARY OF RESULTS AND DISCUSSION

Although Rokeach (60), in discussing his theory of dogmatism, does not say that a more dogmatic individual should be less willing to accept change than a less dogmatic individual, this is implied when he describes dogmatism as containing closed cognitive systems, general authoritarianism, and general intolerance. It is his intention that dogmatism will be considered broader than general authoritarianism and will apply to areas beyond ethnic prejudice, politics and religion.

It seems clear that a highly dogmatic person, with his tightly bound beliefs and general intolerance of ideas outside his own belief system, would be reluctant to welcome either the idea of change or change itself when it is presented to him in any form. Thus, it was hypothesized in this thesis that individuals high in dogmatism would not show a positive attitude toward the concept of change in general and would not welcome change when it surrounds them on their jobs.

The results of this study show that the hypothesis that individuals high in dogmatism will not have a positive attitude toward the concept of change (as measured by the Attitude Toward Change Scale) is upheld. There was a significant inverse relationship between high dogmatism and a positive attitude toward change both before and after technological change was introduced into the work situation.

Trumbo (66), using the same measure of dogmatism on a different population of insurance company employees and using a different statistical treatment of the data, also found an inverse relationship between dogmatism and readiness to accept change.

The hypothesis that high dogmatism is inversely related to a positive attitude toward change seems to be very firmly supported.

The hypothesized relationship between high dogmatism and negative reaction to change seems to be rather complex. It was hypothesized that high dogmatic individuals would show a negative reaction to change when it occurred because of their closed cognitive systems and intolerance. Using five possible measures of reaction to change (Change in job satisfaction after introduction of the computer, Extent computer was felt to be disrupting, Length of time taken to get used to computer, Feeling about changes which had or had not taken place on the job, and Feeling about installation of the computer), it was found that high dogmatism was inversely related to a positive reaction to change as measured by three of the five variables (Extent computer was felt to be disrupting, Length of time taken to get used to the computer, and Feeling about installation of the computer). (Also see Appendix D.)

It makes sense that high dogmatic individuals would find the computer disrupting, would take longer than low dogmatic individuals to get used to the changeover to the computer and would be less likely to say that they liked the fact that the computer had been installed very much. The computer involved change or at least represented change to the high dogmatic individuals whether their jobs were affected by the change or not. This fact should make the computer not so acceptable in the eyes of the high dogmatic employees, because they would be expected to be intolerant of change around them.

Perhaps the reason why no significant relationship was found between high dogmatism and change in job satisfaction is that high dogmatic individuals are reluctant to admit to change in their feelings, whether their feelings have actually changed or not. To stretch the point a bit, perhaps high dogmatic individuals feel that admission of less job satisfaction would imply that they should consider changing jobs, and changing jobs is a major change, whereas the computer may not have affected the high dogmatic employee's job in a way that he could not at least gradually assimilate into his belief system.

The finding that high dogmatism was not related to feelings about change which took place on the job is harder to explain. One would expect that high dogmatic individuals would either not like changes that were introduced into their jobs, or would like the fact that change had not been introduced on their jobs. Since this was not consistently found to be true, one must speculate on the reasons. A possible reason why high dogmatic individuals might find that they liked change on their jobs would be if the change did not disrupt their belief system. That is, if they had a job on which they expected to have promotion or increased responsibilities accompanied by increases in pay from time to time, then such a change on the job (whether brought on by the computer or not) would not invoke displeasure in the high dogmatic individual. If the high dogmatic individual would see lack of promotion or lack of change in responsibility (and the failure of a pay increase that would accompany such changes) as a poor thing, then he should feel displeasure if such changes did not occur in his job, regardless of whether or not such changes were brought on by technological change.

It was hypothesized that anxiety would be related to attitude toward and reaction to change because it makes sense to assume that a person who is highly anxious would not be as willing to risk anything that might change his status quo and thus would be less willing to accept either the concept or the fact of change. An inverse relationship was found in this study between high anxiety and a positive attitude toward change both before and after introduction of the computer into the work situation. Trumbo (66), using a one item measure of anxiety instead of a two item measure as used in this study, and testing the relationship between anxiety and attitude toward change after a computer had been introduced into another insurance company, also found an inverse relationship between high anxiety and a positive attitude toward change.

In this study, it was hypothesized that highly anxious individuals would show a negative reaction to change when it occurred because they would find change required them to make new adjustments to situations they might see as threatening to their probably highly structured systems of ego-defense. Using the five suggested measures of reaction to change, it was found that anxiety was related to all but Feeling about changes which had or had not taken place on the job. In all but the latter measure, high anxiety was inversely related to a positive reaction to change. It is interesting to note that the highest relationship found (tetrachoric $r = -.75$) was between high anxiety and Change in job satisfaction after installation of the computer. Apparently those who are willing to admit that they are anxious also will admit that they are less satisfied since installation of the computer than they were before. (Also see Appendix D.)

The high correlation found between anxiety and change in job satisfaction (tetrachoric r of $-.75$) is hard to explain. One reason has been suggested on the previous page.....(that is, that perhaps those willing to admit they are anxious also will admit they are less satisfied with their jobs after installation of the computer). It also fits in with the findings in the exploratory data that, although dogmatism is not related to job satisfaction before or after the computer installation, or to change in job satisfaction after the computer installation, anxiety is.

On theoretical grounds, one might speculate that the high dogmatic, with his closed cognitive system, would not admit a change in his feelings, especially about something so important as his job satisfaction, whereas the anxious employee would perhaps feel more affected (or perhaps more threatened) by any change on his job and would also be ready to blame any dissatisfaction he may feel onto his job.

It is characteristic of anxious persons to need to attribute their anxiety to something concrete whenever possible, whereas highly dogmatic persons would set up tight defenses against even the manifestation of the anxiety itself.

Despite all of the above explanations of why the relationship was found between anxiety and Change in Job Satisfaction, the size of the relationship is still high enough to be surprising, and it is suggested that, if further experimentation replicates this finding, then research should be designed to lead to greater understanding of the relationship between anxiety and job satisfaction and anxiety and changes in job satisfaction.

The lack of relationship found between anxiety and feeling about changes which had or had not taken place on the job may possibly be due to the fact that some of the changes that took place may have been less anxiety producing than others, or some of the high anxious employees may have been dissatisfied with their present jobs, and, although not welcoming the idea of change, may have been disappointed to see good changes such as promotions taking place which they do not themselves receive.

It was hypothesized that dogmatism and employee anxiety would be related, and they were found to be so in this study. Rokeach (60) has described the high dogmatic as being a highly anxious individual who is constantly defending himself against anxiety.

It was hypothesized that dogmatism and anxiety in combination would be related to both attitude toward and reaction to change. It was found that the combination of high dogmatism and anxiety were inversely related to both pre change and post change positive attitudes toward change, and that three out of five of the suggested positive measures of reaction to change were inversely related to high dogmatism and anxiety in combination. Since a simple summation of dogmatism and anxiety scores was used to achieve the combination score and since this meant combining eleven items of dogmatism with two items of anxiety, the combination had to be weighted more highly with dogmatism than anxiety. Therefore, it is not surprising that the combination was related to the same measures of reaction to change as dogmatism (Extent computer felt to be disrupting, Length of time taken to get used to computer, and Feeling about installation of computer). The same explanations for these relationships should apply as applied for both dogmatism and anxiety. (Also see Appendix D.)

Three of the five suggested measures of reaction to change (Extent Computer felt to be Disrupting, Length of Time Taken to Get Used to the Computer, and Feeling about Installation of the Computer) were consistently related to dogmatism, anxiety, and dogmatism and anxiety in combination. It is notable that all three of these reactions to change are concerned specifically with reactions to the computer, whereas the other two proposed measures of reaction to change (Change in Job Satisfaction and Feeling About Changes Which Had or Had Not Taken Place on the Job) are not specifically dealing with reactions to the computer. It may be (and the results of this study suggest) that three of the five items are measuring one kind of reaction to change and two are measuring another. This possibility could be followed up with further research.

It would be a good idea in future research similar to the research carried out in this study, to make sure some behavioral measures of reaction to change are designed into the study. (Perhaps measures such as change in rate of turnover in employment for the company, changes in rate of absenteeism, etc., could be used). Such measures, although admittedly complex in most companies, and not necessarily easy to obtain, would be worthwhile to act as criteria for scaling attitudinal measures of reaction to change. They could also be used in making more comparisons possible between personality, attitudes, and other variables with behavioral manifestations of reaction to change.

The exploratory data seem most illuminating when summarized. High education was found to be related to low dogmatism, being male, being older, having a positive attitude toward change, and being less satisfied with the job, both before and after introduction of the computer.

Concerning age, relationships were found between being older and being male, being less dogmatic, and having a positive attitude toward change. Older supervisors had the most positive attitude toward change among supervisors, but on a nonsupervisory level, younger employees took less time to get used to the computer. It was also found that those who had a positive attitude toward change as supervisors were less pleased than other supervisors when they had experienced change or else were more pleased than other supervisors when no change occurred on their jobs.

A relationship was found between being male and being a low dogmatic, low on anxiety, older, having a higher education, having a more positive attitude toward change, finding the computer less disrupting and being less satisfied with the job both before and after introduction of the computer into the work situation. It was also found that male supervisors liked the fact that the computer had been installed better than female supervisors, but male nonsupervisory employees did not like the fact that the computer had been installed as well as female nonsupervisory employees did. This last finding probably indicates that male nonsupervisory employees found their jobs most threatened or most seriously changed with the introduction of the computer. Nonsupervisory males would probably be in nonclerical positions such as accountant or claims adjustor . . . and these positions

would be perceived to be (and probably ^{are} actually) most threatened by introduction of the computer.

Further research is necessary to show whether education, age or sex are the primary determinants or primary correlates of dogmatism, anxiety, attitude toward change and reaction to change. At this point, it is hypothesized that education is the primary factor. Research to date on the authoritarian-type personality would lead to the belief that individuals with higher education are more open to the consideration of new ideas, and more willing to take part in new events. It makes more sense theoretically to postulate that education would be a determinant of lower dogmatism and higher attitude toward change rather than sex or age. In the insurance company used in this study, it happened that higher educated employees were also older males. Other groups should be studied which do not have such a small group of employees with such similar characteristics so the differential effects of higher education, sex and age could be more easily studied.

It is interesting to note that Trumbo (66), in his study using a different insurance company, also found males in higher, more responsible positions most favoring change and that they were least anxious, most critical, least dogmatic and best educated. His findings with a different group of people in similar jobs lend support to the findings of this study on these particular variables.

One may speculate on the reason why the high educated male employee was not so satisfied with his job. Since job satisfaction was not found to be related to reactions to the computer, it seems likely that the lack of satisfaction stems from the nature of the jobs held by the high educated males, aside from the relationship of the

jobs to the computer. Perhaps these jobs do not fully utilize the skills and capacities of the high educated males or perhaps these males (whom Trumbo (66) found to be more involved in their jobs than females, in another insurance company) are not satisfied with the career potential of their present positions.

Because of the nature of the relationships found between a variety of variables in this study, a multivariate analysis in a group of larger size is suggested in future experimentation.

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Although cross validation of the relationships between personality variables and reaction to change did not turn out well when predicting from branch to home office, it was considered likely that this happened at least in part because of the small number of employees in the branch office.

As shown in Appendix D, when the branch office was used to predict home office results, the validation was accomplished. Since validation was successful when predicting in one direction but not in the other, validation of relationships found between personality variables and reaction to change is not as satisfying as it might be.

It is suggested that in similar future experiments, a cross validation group of larger size be used.

CHAPTER X

CONCLUSIONS

The major findings of this study are that high dogmatism and high anxiety, separately and in combination, are inversely related to a positive attitude toward change; that high dogmatism and anxiety, separately and in combination, are inversely related to a positive reaction to change as measured by the extent the change-producing computer is felt to be disrupting, the length of time taken to get used to the computer, and feeling about installation of the computer. In addition, high anxiety is inversely related to having less satisfaction with the job after introduction of the computer.

Dogmatism and anxiety were found to be related to each other, and each is related to essentially the same attitudes and reactions to change.

Exploring the relationship between several variables led to a picture of high education being related to low dogmatism, being male, being older, having a positive attitude toward change, and being less satisfied with the job. It was also found that male supervisors were more pleased about installation of the computer than female supervisors, but among nonsupervisory personnel, males were less pleased than females about installation of the computer.

These findings add information about employee attitudes toward their jobs, toward technological change, and reaction to technological

change in a work situation. Further research should be undertaken in other work settings to see whether these results hold for workers other than white-collar workers in medium-sized insurance companies.

The findings of major theoretical interest are that individuals with closed cognitive belief systems not only have a negative attitude toward the concept of change, but show negative reactions to change in a work setting, and that the same holds true for highly anxious individuals.

The practical suggestions resulting from the findings of this study are that company personnel involved in planning for change should give the most preparation for change to individuals who are high dogmatics, nonsupervisory, anxious, young women with 12 years of education or less. Education and sex data are available to the personnel people on personnel records, and the eleven item dogmatism scale and two item anxiety scale are easily administered and not easy to "fake."

It appears that attention should be paid to finding means to increase job satisfaction for male employees with higher education. These employees are very likely to be valuable employees and in critical positions, and their job satisfaction should be of some concern to the company.

Not only should particular attention be given to easing the impact of technological change on high dogmatic, nonsupervisory, anxious, young women with 12 years of education or less, but particular attention should also be paid to males in nonsupervisory positions, since this group, although having a positive attitude toward change, were not as pleased as other employees about the fact that the computer

had been installed. Particularly if these nonsupervisory males are going to be most affected by introduction of the computer, this group should be the object of a carefully planned information and discussion program which will give the most realistic picture possible about what technological change will do to their jobs and what action they might take to make the experience of change more satisfying.

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APPENDIX A

To: All Home Office and _____ Branch Office Personnel

The Labor and Industrial Relations Center of Michigan State University have been authorized by the Michigan Legislature to conduct a research program with the people employed in industrial organizations and in the larger offices of various types of companies.

They have requested, and we have given, permission for them to make a research study of the ideas and the opinions that our employees may have of their positions with the Company.

On Tuesday, November 19, 1957, you will be asked by the men from the Labor and Industrial Relations Center of the University, who are doing this study, to fill out a questionnaire. This questionnaire will be seen only by these research men. No one in the Company will see the questionnaire nor be told what any individual employee has answered. You may, therefore, feel absolutely free to fill out the questionnaire with complete sincerity and we would appreciate it if you would do so.

The Company would like to be of as much help and assistance as we can in this research, as the findings of these research men are intended to promote a better understanding of the problems of people employed in large offices.

Would you, therefore, freely express your individual views and opinions to these research men from the University.

_____ President

P. S. _____ Office - 1:00 and 3:00 in the afternoon
Place - Lunch Room

_____ Office - 1:15 P.M.
Place - Desk

Any further information can be given by your supervisor.

APPENDIX B

Pretest Employee Questionnaire

Pretest Supervisory Questionnaire

Posttest

PRETEST EMPLOYEE QUESTIONNAIRE

MICHIGAN STATE UNIVERSITY

OF AGRICULTURE AND APPLIED SCIENCE • EAST LANSING

LABOR AND INDUSTRIAL RELATIONS CENTER

Project OE 112-E-4

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November 1957

To: Employees of [REDACTED] Automobile Insurance Company

The Labor and Industrial Relations Center at Michigan State University is carrying on a broad program of research having to do with people working together effectively in industrial organizations. Much of the research consists of getting the ideas and opinions of people about their jobs.

You are being asked to fill out a questionnaire as a part of this series of studies. Your answers, along with those from people in other organizations, will be analyzed to help discover what things are most important in making the working situation better for the people in it.

The value of this study depends upon the sincerity and care with which you answer the questions. It is important to get your real feelings. We are looking for frank statements about your attitudes, feelings, opinions and judgments about certain aspects of your job.

The answers that you give will be made available only to the research team in the Labor and Industrial Relations Center. No one connected in any way with your organization will see or use any of the individual questionnaires or be able in any way to find out what kind of answers you have given. Your information will be held in the strictest confidence and the results of the study will be tabulated on a group basis only.

Reports on the general findings from the study will be prepared for you, the company and the general public.

Einar Hardin
Research Associate
Labor and Industrial Relations Center
Michigan State University

Please print your name below. When you have finished the questionnaire, tear this part off and place it in the "ballot box" by the door. THIS INFORMATION WILL BE USED TO HELP US ANALYZE THE QUESTIONNAIRE. IT WILL NOT BE AVAILABLE TO ANYONE IN THE COMPANY.

Name _____

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1. The first part of the report is a general introduction to the subject.

2. The second part is a detailed description of the methods used.

3. The third part is a discussion of the results obtained.

4. The fourth part is a conclusion and a summary of the findings.

5. The fifth part is a list of references.

6. The sixth part is a list of figures and tables.

7. The seventh part is a list of appendices.

8. The eighth part is a list of acknowledgments.

9. The ninth part is a list of footnotes.

10. The tenth part is a list of references.

11. The eleventh part is a list of figures and tables.

12. The twelfth part is a list of appendices.

13. The thirteenth part is a list of acknowledgments.

14. The fourteenth part is a list of footnotes.

15. The fifteenth part is a list of references.

16. The sixteenth part is a list of figures and tables.

17. The seventeenth part is a list of appendices.

GO THROUGH THESE QUESTIONS QUICKLY. CHOOSE THE ONE ANSWER THAT COMES CLOSEST TO THE WAY THAT YOU FEEL. PLACE A CHECK MARK (✓) IN THE SPACE IN FRONT OF YOUR CHOICE. PLEASE TRY TO ANSWER EVERY QUESTION.

I-40 Check the one statement that best describes the rate at which changes are taking place in the world today.

- ☐ 1. Much more rapidly than before.
- ☐ 2. Somewhat more rapidly than before.
- ☐ 3. At about the same rate as before.
- ☐ 4. Somewhat less rapidly than before.
- ☐ 5. Much less rapidly than before.
- ☐ 9. Don't know.

I-41 How do you feel about this?

- ☐ 1. I like it very much.
- ☐ 2. I like it.
- ☐ 3. It makes no difference to me.
- ☐ 4. I dislike it.
- ☐ 5. I dislike it very much.

I-42 In general, new developments in machines and processes for handling work

- ☐ 1. Benefit all of the people.
- ☐ 2. Benefit most of the people.
- ☐ 3. Benefit some of the people.
- ☐ 4. Benefit only a few people.
- ☐ 5. Benefit only a very few people.
- ☐ 9. Don't know.

I-43 At what rate do you feel new developments in machines and methods for doing work are taking place?

- ☐ 1. Much less rapidly than is desirable.
- ☐ 2. Somewhat less rapidly than is desirable.
- ☐ 3. At about the ideal rate.
- ☐ 4. Somewhat more rapidly than is desirable.
- ☐ 5. Much more rapidly than is desirable.
- ☐ 9. Don't know.

I-44 Have new machines changed the tasks performed on your kind of job in the past year?

- ☐ 1. Yes, to a very large extent.
- ☐ 2. Yes, to a rather large extent.
- ☐ 3. Yes, to a moderate extent.
- ☐ 4. Yes, to a slight extent.
- ☐ 5. No, not at all.
- ☐ 9. Don't know.

I-45 How do you feel about this?

- ☐ 1. I like it very much.
- ☐ 2. I like it.
- ☐ 3. It makes no difference to me.
- ☐ 4. I dislike it.
- ☐ 5. I dislike it very much.

I-46 Have machines caused employees in insurance companies to transfer to different jobs within the company in the past year?

- ☐ 1. Yes, to a very large extent.
- ☐ 2. Yes, to a large extent.
- ☐ 3. Yes, to a moderate extent.
- ☐ 4. Yes, to a slight extent.
- ☐ 5. No, not at all.
- ☐ 9. Don't know.

I-47 How do you feel about this?

- ☐ 1. I like it very much.
- ☐ 2. I like it.
- ☐ 3. It makes no difference to me.
- ☐ 4. I dislike it.
- ☐ 5. I dislike it very much.

I-48 Have machines caused employees to lose their jobs in insurance companies in the past year?

- ☐ 1. Yes, to a very large extent.
- ☐ 2. Yes, to a large extent.
- ☐ 3. Yes, to a moderate extent.
- ☐ 4. Yes, to a slight extent.
- ☐ 5. No, not at all.
- ☐ 9. Don't know.

I-49 How do you feel about this?

- ☐ 1. I like it very much.
- ☐ 2. I like it.
- ☐ 3. It makes no difference to me.
- ☐ 4. I dislike it.
- ☐ 5. I dislike it very much.

I-50 Are the chances that a machine will cause you to do different work on your job greater or less than for most jobs in this company?

- ☐ 1. Much greater than for most jobs.
- ☐ 2. Somewhat greater than for most jobs.
- ☐ 3. Greater than some, less than others.
- ☐ 4. Somewhat less than for most jobs.
- ☐ 5. Much less than for most jobs.
- ☐ 9. Don't know.

I-51 How do you feel about this?

- ☐ 1. I like it very much.
- ☐ 2. I like it.
- ☐ 3. It makes no difference to me.
- ☐ 4. I dislike it.
- ☐ 5. I dislike it very much.

I-52 In your company, have employees lost their jobs because of machines in the past year?

- ☐ 1. Yes, to a very large extent.
- ☐ 2. Yes, to a large extent.
- ☐ 3. Yes, to a moderate extent.
- ☐ 4. Yes, to a slight extent.
- ☐ 5. No, not at all.
- ☐ 9. Don't know.

I-53 How do you feel about this?

- ☐ 5. I dislike it very much.
- ☐ 4. I dislike it.
- ☐ 3. It makes no difference to me.
- ☐ 2. I like it.
- ☐ 1. I like it very much.

I-54 What will happen to the total number of people doing your kind of job in insurance companies in the next five years?

- ☐ 1. Greatly increase.
- ☐ 2. Slightly increase.
- ☐ 3. Remain about the same.
- ☐ 4. Slightly decrease.
- ☐ 5. Greatly decrease.
- ☐ 9. Don't know.

I-55 How do you feel about this?

- ☐ 5. I dislike it very much.
- ☐ 4. I dislike it.
- ☐ 3. It makes no difference to me.
- ☐ 2. I like it.
- ☐ 1. I like it very much.

I-56 The job that you would consider ideal for you would be one where the way you do your work:

- ☐ 5. Is always the same.
- ☐ 4. Changes very little.
- ☐ 3. Changes somewhat.
- ☐ 2. Changes quite a bit.
- ☐ 1. Changes a great deal.

I-57 On the job that you have now, how much of your present work involves the use of office machines?

- ☐ 1. Almost all of it.
- ☐ 2. A large part of it.
- ☐ 3. Some of it.
- ☐ 4. A small part of it.
- ☐ 5. Almost none of it.
- ☐ 9. Don't know.

I-58 On the job that would be ideal for you, how much of your work would involve the use of office machines?

- ☐ 1. Almost all of it.
- ☐ 2. A large part of it.
- ☐ 3. Some of it.
- ☐ 4. A small part of it.
- ☐ 5. Almost none of it.
- ☐ 9. Don't know.

I-59 Do you feel that your kind of job will require more or less use of machines by 1960?

- ☐ 1. Much more use of machines.
- ☐ 2. Somewhat more use of machines.
- ☐ 3. A little more use of machines.
- ☐ 4. No more use of machines than now.
- ☐ 5. A little less use of machines.
- ☐ 9. Don't know.

5.

I-40 In general, how much change takes place from time to time in the way you are expected to do your present job?

- ☐ 1. Much more change than for most jobs.
- ☐ 2. Somewhat more change than for most jobs.
- ☐ 3. About the same amount of change as for most jobs.
- ☐ 4. Somewhat less change than for most jobs.
- ☐ 5. A lot less change than for most jobs.

I-41 How do you feel about this?

- ☐ 5. I dislike it very much.
- ☐ 4. I dislike it.
- ☐ 3. It makes no difference to me.
- ☐ 2. I like it.
- ☐ 1. I like it very much.

On the next page you will find a list of statements about aspects of your job. You are asked to answer two questions about each aspect of your job. "Has this aspect of your job changed in the past six months?" (Question "A"), and "How do you feel about the change (or lack of change) in this aspect of your job?" (Question "B")

1. If you had the same job title here at [REDACTED] six months ago, compare the way your job is now with the way it was six months ago on each of the job aspects.

2. If you had a different job here at [REDACTED] six months ago, compare your present job with the job you had six months ago on each of the job aspects.

3. If you have not been with [REDACTED] for at least six months, indicate any changes which have occurred in the aspects of your job since you came to [REDACTED].

Example: Suppose the statement had to do with hours of work. If you are working more hours now ("A") and don't like it ("B"), you would check the spaces like this:

QUESTION "A"

How has this aspect of your job changed in the past six months?

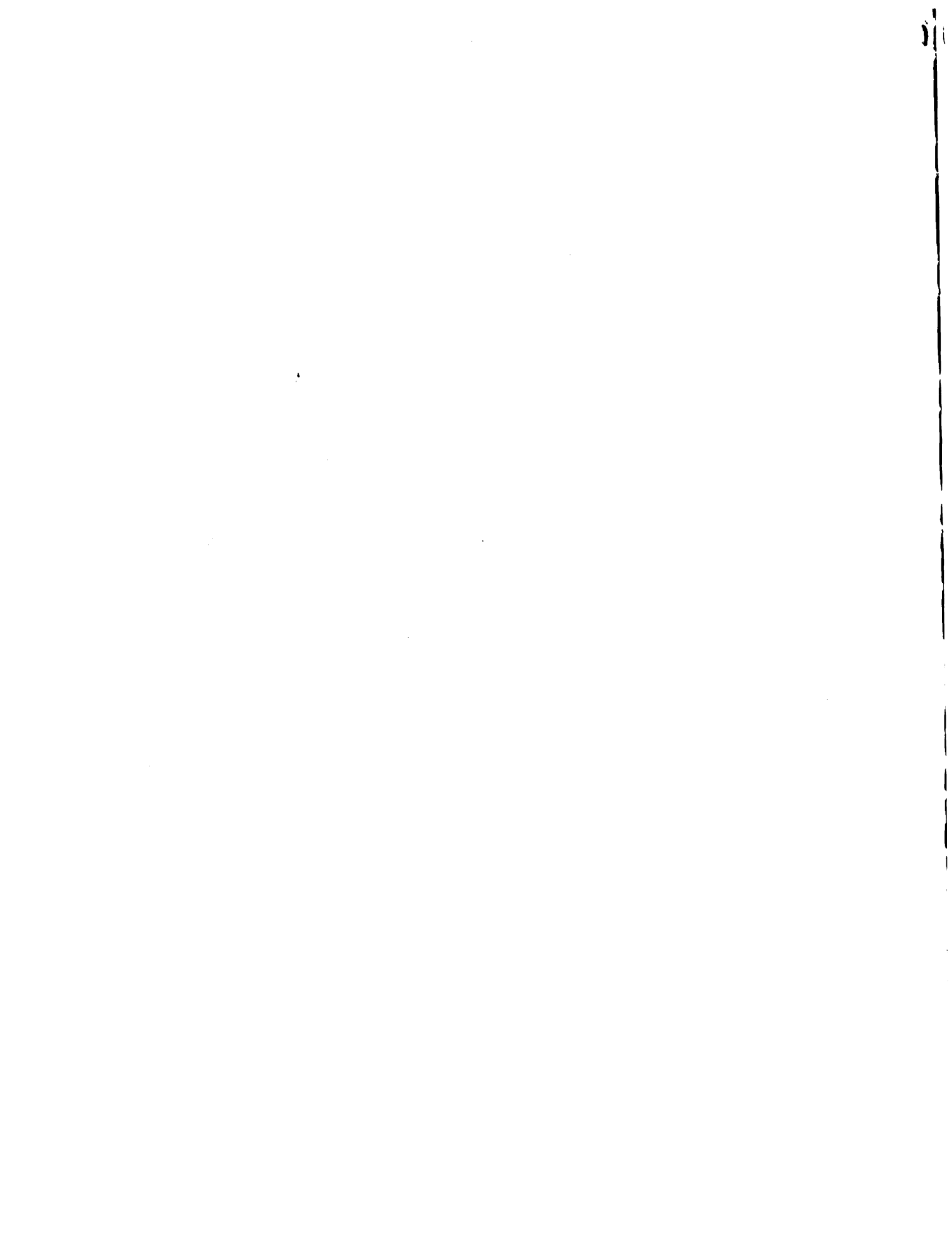
QUESTION "B"

How do you feel about this change (or lack of change) in your job?

much more now	more now	no change	less now	much less now	like a lot	like	don't care	dis- like	dis- like a lot
---------------------	-------------	--------------	-------------	---------------------	------------------	------	---------------	--------------	-----------------------

The hours
I work on
this job....

— ✓ — — — — — — ✓ —



ANSWER QUESTIONS "A"
AND "B" FOR EACH OF
THESE STATEMENTS

	QUESTION "A"				QUESTION "B"			
	How has this aspect of your job changed in the past six months?				How do you feel about this change (or lack of change) in your job?			
	much more now	more now	no change	less now	much less now	like it a lot	don't care like it a lot	dislike it a lot
I-62 1. The amount of variety in my work.....	—	—	—	—	—	—	—	—
I-63 2. The amount of work required on my job.....	—	—	—	—	—	—	—	—
I-64 3. The degree of accuracy demanded by my job.....	—	—	—	—	—	—	—	—
I-65 4. My control over the pace of my work.....	—	—	—	—	—	—	—	—
I-66 5. The importance of my job for the company.....	—	—	—	—	—	—	—	—
I-67 6. The amount of supervision I get on my job.....	—	—	—	—	—	—	—	—
I-68 7. The amount of skill needed on my job.....	—	—	—	—	—	—	—	—
I-69 8. The amount of responsibility demanded by my job.....	—	—	—	—	—	—	—	—
I-70 9. The amount of planning I have to do on my job.....	—	—	—	—	—	—	—	—
I-71 10. The amount of judgment I have to use on my job.....	—	—	—	—	—	—	—	—
I-72 11. The degree to which my work is interesting.....	—	—	—	—	—	—	—	—
I-73 12. The amount of security I feel on my job.....	—	—	—	—	—	—	—	—
I-74 13. My chances for promotion to a better job.....	—	—	—	—	—	—	—	—
I-75 14. The amount of pay I get on my job.	—	—	—	—	—	—	—	—

8.

The following questions are concerned with the contacts you have with other people in your work, and with how you feel about the information you receive regarding changes in your job.

II-40 During a regular workday I generally exchange information connected with my work with the following number of people:

- 1. None
- 2. 1 - 2
- 3. 3 - 5
- 4. 6 - 10
- 5. More than 10

II-41 My job requires me to give information to my supervisor:

- 1. Very frequently
- 2. Often
- 3. Sometimes
- 4. Seldom
- 5. Very infrequently

II-42 When there is some gossip or information in the "grape-vine":

- 1. I am always the first one to hear about it.
- 2. I am usually one of the first to hear about it.
- 3. I hear about it at about the same time as everyone else does.
- 4. I am usually one of the last to hear about it.
- 5. I never hear about it.

II-43 How satisfied are you with the information you receive concerning changes in the company and in your job?

- 1. Completely satisfied
- 2. Very satisfied
- 3. Quite satisfied
- 4. Somewhat satisfied
- 5. Not satisfied

II-44 How satisfied are you with the number of opportunities you have to discuss things about your job with your fellow employees?

- 1. Completely satisfied
- 2. Very satisfied
- 3. Quite satisfied
- 4. Somewhat satisfied
- 5. Not satisfied

II-45 How satisfied are you with the number of opportunities you have to discuss things about your job with your supervisor?

- ☐ 1. Completely satisfied
☐ 2. Very satisfied
☐ 3. Quite satisfied
☐ 4. Somewhat satisfied
☐ 5. Not satisfied

II-46 How much information has the company given the employees this fall?

- ☐ 1. Much more than usual.
☐ 2. More than usual.
☐ 3. About the same as usual.
☐ 4. Less than usual.
☐ 5. Much less than usual.

In the right-hand column next to each item place a check mark under the statement which best describes your satisfaction with information received from the company.

ASPECTS OF INFORMATION	Satisfaction				
	Completely satisfied	Very satisfied	Quite satisfied	Somewhat satisfied	Not satisfied
<u>II-47</u> 1. Amount of information.....	☐	☐	☐	☐	☐
<u>II-48</u> 2. Accuracy of information.....	☐	☐	☐	☐	☐
<u>II-49</u> 3. Understandability of information.....	☐	☐	☐	☐	☐
<u>II-50</u> 4. Getting information soon enough.....	☐	☐	☐	☐	☐

As you may know, your company is planning to install an IBM "650" Computer in December. We are interested in how you think this machine may affect your job here at [REDACTED]. The following questions ask for your opinions as to what the effects may be.

II-51 Which statement best describes the effect you expect the computer to have on you in the next six months?

- ☐ 1. I expect to be promoted.
- ☐ 2. I expect to be transferred to a different job.
- ☐ 3. I expect to keep the same job, but with the work greatly changed.
- ☐ 4. I expect to keep the same job, but with the work noticeably changed.
- ☐ 5. I expect to keep the same job with the work only slightly changed.
- ☐ 6. I expect to keep the same job with no change at all.
- ☐ 7. I don't expect to be affected for I plan to quit working soon.
- ☐ 8. Other (describe) _____
- ☐ 9. I have no idea.

II-52 How do you feel about this?

- ☐ 1. I like it very much.
- ☐ 2. I like it.
- ☐ 3. It makes no difference to me.
- ☐ 4. I dislike it.
- ☐ 5. I dislike it very much.

II-53 Do you think that the computer will influence your job in the next year or two?

- ☐ 1. It is very likely.
- ☐ 2. It is quite likely.
- ☐ 3. It is possible, but not very likely.
- ☐ 4. It is not very likely.
- ☐ 5. It is not at all likely.
- ☐ 6. I have no idea.

II-54 How do you feel about this?

- ☐ 1. I like it very much.
- ☐ 2. I like it.
- ☐ 3. It makes no difference to me.
- ☐ 4. I dislike it.
- ☐ 5. I dislike it very much.

II-55 What is your general feeling about the fact that the company has decided to install the computer?

- ☐ 1. I like it very much.
- ☐ 2. I like it.
- ☐ 3. It makes no difference to me.
- ☐ 4. I dislike it.
- ☐ 5. I dislike it very much.

II-56 Why do you feel this way? _____

Now you are asked to indicate in what way you expect the computer to influence each aspect of your present job within the next six months. Place a check mark in one of the spaces under Question "C" for each statement about your job.

QUESTION "C"
IN WHAT WAY DO YOU EXPECT THE COMPUTER TO
INFLUENCE THIS ASPECT OF YOUR JOB WITHIN
THE NEXT SIX MONTHS?

		I think there will be ...					I
		much more	more	no	less	much less	have no
		than now	than now	change	than now	than now	idea
II-57	1. The amount of variety in my work.....	—	—	—	—	—	—
II-58	2. The amount of work required on my job.....	—	—	—	—	—	—
II-59	3. The degree of accuracy demanded by my job.....	—	—	—	—	—	—
II-60	4. My control over the pace of my work.....	—	—	—	—	—	—
II-61	5. The importance of my job for the company.....	—	—	—	—	—	—
II-62	6. The amount of supervision I get on my job..	—	—	—	—	—	—
II-63	7. The amount of skill needed on my job.....	—	—	—	—	—	—
II-64	8. The amount of responsibility demanded by my job	—	—	—	—	—	—
II-65	9. The amount of planning I have to do on my job....	—	—	—	—	—	—
II-66	10. The amount of judgment I have to use on my job.	—	—	—	—	—	—
II-67	11. The degree to which my work is interesting.....	—	—	—	—	—	—
II-68	12. The amount of security I feel on my job.....	—	—	—	—	—	—
II-69	13. My chances for promotion to a better job.....	—	—	—	—	—	—
II-70	14. The amount of pay I get on my job.....	—	—	—	—	—	—

The following items deal with company information about the IBM "650":

III-40 I can recall first hearing that the company was installing an IBM "650" computer:

- 1. More than a year ago
- 2. Between six months and one year ago
- 3. Several months ago
- 4. A few weeks ago
- 5. A few days ago
- 6. I didn't know until today that a computer was to be installed.

III-41 Of the information distributed about the IBM "650" computer prior to its installation I think I have received:

- 1. All of it
- 2. Most of it
- 3. Some of it
- 4. Only a little of it
- 5. None of it

III-42 I have discussed the IBM "650" computer with others:

- 1. Very often
- 2. Often
- 3. Sometimes
- 4. Not often
- 5. Never

The company has made various statements and announcements in connection with the preparations for the computer. Some have been made in [REDACTED], some have been made in special bulletins, and some may have been made in information meetings or by your direct supervisor. We are interested in finding out how well the information has reached you. In the table below there is a series of statements. For each of the statements indicate, to the best of your knowledge, whether the company has: (A) made any statement with that meaning, (B) made any statement with the opposite meaning, or (C) not said anything about the subject.

STATEMENT	The company has:		
	<u>A</u> Said so	<u>B</u> Said the opposite	<u>C</u> Said nothing about the subject
III-44 The computer will not make any mistakes of its own.....	—	—	—
III-45 The computer cannot correct errors that exist in the data it receives.....	—	—	—
III-46 The IBM 650 programmer will spend a lot of time preparing coded instructions for the machine.....	—	—	—
III-47 Most of the time the computer will be operated by the IBM 650 programmer.....	—	—	—
III-48 One of the immediate tasks of the IBM 650 programmer is to develop a procedure for figuring payroll on the computer.....	—	—	—
III-49 The IBM 650 computer can be operated properly only by people who know some electrical engineering.....	—	—	—
III-50 It has become necessary to write a detailed procedural manual for preparation of data to be used in the computer.....	—	—	—
III-51 The computer will change the work methods in all parts of the company.....	—	—	—

(Continuation of table on page 14)

STATEMENT	The company has:		
	<u>A</u> Said so	<u>B</u> Said the opposite	<u>C</u> Said nothing about the subject
<u>III</u> - 52 Representatives of the IBM Corporation say that [REDACTED] is doing quite well in preparing for the computer.....	—	—	—
<u>III</u> - 53 The computer will be handled by the automobile underwriting department.....	—	—	—
<u>III</u> - 54 There will be a lot more people needed in the IBM accounting department as a result of the computer.....	—	—	—
<u>III</u> - 55 The company will be able to issue policies more quickly thanks to the computer.....	—	—	—
<u>III</u> - 56 The computer will soon be used for deciding which applications the company should accept and which it should reject.....	—	—	—
<u>III</u> - 57 The computer will first be used for figuring loss ratios for each of the agents.....	—	—	—
<u>III</u> - 58 The computer will figure out how the company should settle claims from a policyholder.....	—	—	—
<u>III</u> - 59 The computer will not endanger anybody's employment at [REDACTED]	—	—	—

Now we would like to know what you personally think will happen as a result of the computer. Below are several questions. Mark your answer in one of the columns "Yes", "Possibly", and "No", depending on your opinion.

In your opinion:		Your answer		
		Yes	Possibly	No
III-60	Will the computer make mistakes of its own?.....	—	—	—
III-61	Will the computer change the work methods in all parts of the company?.....	—	—	—
III-62	Will the company be able to issue policies more quickly thanks to the computer?.....	—	—	—
III-63	Will the computer soon be used for deciding which applications the company should accept and which it should reject?.....	—	—	—
III-64	Will the computer endanger anybody's employment at [REDACTED]?.....	—	—	—
III-65	Will the computer make jobs too difficult to understand for a lot of people?.....	—	—	—
III-66	Will a lot of people be able to use more of their skills as a result of the installation of the computer?.....	—	—	—
III-67	Will the computer actually help increase employment at [REDACTED]?.....	—	—	—

The following items deal with preferences about changes in your job:

IV-40 If I could do as I pleased, I would change the kind of work I do every few months.

- ☐ 5. I strongly agree
- ☐ 4. I agree a little
- ☐ 3. I neither agree nor disagree
- ☐ 2. I disagree a little
- ☐ 1. I strongly disagree

IV-41 One can never feel at ease on a job where the ways of doing things are always being changed.

- ☐ 1. I strongly agree
- ☐ 2. I agree a little
- ☐ 3. I neither agree nor disagree
- ☐ 4. I disagree a little
- ☐ 5. I strongly disagree

IV-42 The trouble with most jobs is that you just get used to doing things in one way and then they want you to do them differently.

- ☐ 1. I strongly agree
- ☐ 2. I agree a little
- ☐ 3. I neither agree nor disagree
- ☐ 4. I disagree a little
- ☐ 5. I strongly disagree

IV-43 I would prefer to stay with a job I know I can handle than to change to one where most things would be new to me.

- ☐ 1. I strongly agree
- ☐ 2. I agree a little
- ☐ 3. I neither agree nor disagree
- ☐ 4. I disagree a little
- ☐ 5. I strongly disagree

IV-44 The trouble with many people is that when they find a job they can do well they don't stick with it.

- ☐ 1. I strongly agree
- ☐ 2. I agree a little
- ☐ 3. I neither agree nor disagree
- ☐ 4. I disagree a little
- ☐ 5. I strongly disagree

IV-45 I like a job where I know that I will be doing my work about the same way from one week to the next.

- 1. I strongly agree
- 2. I agree a little
- 3. I neither agree nor disagree
- 4. I disagree a little
- 5. I strongly disagree

IV-46 When I get used to doing things in one way it is disturbing to have to change to a new method.

- 1. I strongly agree
- 2. I agree a little
- 3. I neither agree nor disagree
- 4. I disagree a little
- 5. I strongly disagree

IV-47 It would take a sizable raise in pay to get me to accept a different job here.

- 1. I strongly agree
- 2. I agree a little
- 3. I neither agree nor disagree
- 4. I disagree a little
- 5. I strongly disagree

IV-48 There are many unnecessary tasks performed in this company.

- 1. I strongly agree
- 2. I agree
- 3. I neither agree nor disagree
- 4. I disagree
- 5. I strongly disagree

IV-49 This company is slow in adopting more efficient methods of work.

- 1. I strongly agree
- 2. I agree
- 3. I neither agree nor disagree
- 4. I disagree
- 5. I strongly disagree

IV-50 It is hard to gain acceptance of proposals for changes that would lead to increased efficiency.

- 1. I strongly agree
- 2. I agree
- 3. I neither agree nor disagree
- 4. I disagree
- 5. I strongly disagree

IV-51 Many persons in this company are so used to doing things in the present way that they cannot see the advantages of new methods of work.

- 1. I strongly agree
- 2. I agree
- 3. I neither agree nor disagree
- 4. I disagree
- 5. I strongly disagree

IV-52 Personal interests are too often allowed to stand in the way of improved efficiency in this company.

- 1. I strongly agree
- 2. I agree
- 3. I neither agree nor disagree
- 4. I disagree
- 5. I strongly disagree

Some supervisors are more likely to handle certain situations in one way than in another way.

Check the one answer which best describes the way your supervisor would handle each of the following situations. Notice: "Supervisor" refers to the person to whom you report directly.

V-40 What is your supervisor's name? _____

V-41 How long has this person been your supervisor? _____ years _____ months

V-42 When a question arises about how something should be done, my supervisor is most apt to

- _____ 1. Insist that the individual should adjust to the work in his own way.
- _____ 2. Insist that everything be done in the supervisor's way.
- _____ 3. Insist that the work group should come to a common agreement about the work.
- _____ 4. Insist everything be done according to company rules and regulations.

V-43 When my supervisor finds someone disagreeing with him, he is most likely to

- _____ 1. Refer to his own experience and know-how to back up his opinions.
- _____ 2. Try to persuade those who disagree with him.
- _____ 3. Refer to the company policy and procedures to back his opinions.
- _____ 4. Go along with the decision of the work group in deciding the issue.

V-44 My supervisor would prefer to hire a person who is

- _____ 1. Intelligent and has a good deal of drive.
- _____ 2. A hard worker, who doesn't need much supervision.
- _____ 3. Open-minded and willing to share responsibilities.
- _____ 4. Agreeable and willing to follow the regulations.

V-45 Ratings and promotions in this department seem to be based on

- _____ 1. A person's records which show his job skills, length of employment, etc.
- _____ 2. A person's technical knowledge and experience in the department.
- _____ 3. A person's ambition and ability to learn.
- _____ 4. Recommendations by both supervisors and employees.

IV-46 My supervisor is most apt to give out new orders and information by

- 1. Discussing them with the group, getting the group's comments and questions.
- 2. Sending a written notice to every employee concerned.
- 3. Explaining the orders or information to each employee concerned.
- 4. Telling each employee about them informally at the appropriate time and place.

IV-47 My supervisor seems most interested in developing his ability to

- 1. Properly make reports, handle paperwork, etc.
- 2. Handle any problems of work flow, machine operation, etc.
- 3. Understand employees' ideas, interests and standards.
- 4. Deal with individuals efficiently without causing friction.

IV-48 My supervisor seems to feel that he should

- 1. Not use his authority -- respect the employees' opinions.
- 2. Not make a snap judgment -- be systematic and fair.
- 3. Have employees respect his authority -- make prompt, firm decisions.
- 4. Avoid unnecessary conflicts -- give praise and personal attention.

IV-49 My supervisor's idea of training seems to be

- 1. To repeat instructions until he's satisfied that the person is really efficient.
- 2. To develop the person's interest in the job by praising his progress.
- 3. To make sure the person has a complete set of instructions and job requirements.
- 4. To explain what the job requires then let the person develop his own methods.

V-50 If a major reorganization of the work in this department were necessary, my supervisor would probably

- 1. Notify us that the personnel department would reassign us as fairly as possible.
- 2. Try to persuade certain employees to take the new assignments.
- 3. Ask the work group for suggestions on how the reassignments should be made.
- 4. Tell employees they were being reassigned in the best way to get the work out.

V-51 My supervisor tries to get the work out by

- 1. Carefully directing and disciplining employees.
- 2. Appealing to the individual's desire for self-improvement.
- 3. Following plans for scheduling work in detail.
- 4. Trying to get employees to work together as a team.

V-52 My supervisor seems to be most interested in

- 1. A neat, well-regulated department.
- 2. A friendly, well-integrated work group.
- 3. An efficient, well-controlled department.
- 4. An ambitious, competitive spirit among employees.

V-53 If we decided on a new way to handle part of our work, our supervisor would probably

- 1. Tell us to go ahead if he was sure it would be more efficient.
- 2. Talk to us individually to see how each of us felt about it.
- 3. Urge us to go ahead if none of us had any questions about it.
- 4. Insist that we wait until he had consulted his boss about it.

V-54 If a disagreement were to arise -- say, about vacation schedule -- my supervisor would probably

- 1. Remind us of the loyalty we owe to the company.
- 2. Emphasize the need for a cooperative settlement by the work group.
- 3. Suggest that the ambitious person gets ahead in the long run.
- 4. Emphasize the need to follow his (her) work schedule to get the work out.

V-55 My supervisor seems to depend most on

- 1. His (her) knowledge of company policies and procedures.
- 2. His (her) ability to work with the employees as a group.
- 3. His (her) ability to influence people to do what has to be done.
- 4. His (her) technical knowledge of the jobs and the work flow.

V-56 If one of us continued to pester our supervisor with a minor complaint, he (she) would probably

- ☐ 1. Help him to become interested in something more constructive.
- ☐ 2. Politely but firmly show him just why the complaint is not justified.
- ☐ 3. Talk the problem over with him, trying to understand how he feels about it.
- ☐ 4. Send him up the line to the proper authority for an official and final answer that the employee will have to accept.

V-57 If I suggested an improvement in the section, my supervisor would be most apt to

- ☐ 1. Urge me to send it directly to the Operating Committee.
- ☐ 2. Urge me to talk it over with the others for their comments.
- ☐ 3. Ask to have time to go over it before he (she) makes any comments.
- ☐ 4. Go over it with me; point out that this is the way to get ahead.

V-58 In general, my supervisor seems to

- ☐ 1. Create an "I don't care" attitude among the employees.
- ☐ 2. Make people antagonistic toward him.
- ☐ 3. Create cooperation among the employees.
- ☐ 4. Create competition between employees.

V-59 The last time there was a change in our work routine, my supervisor

- ☐ 1. Talked to each individual about the changes in his job.
- ☐ 2. Asked the group how the problem should be handled.
- ☐ 3. Read (or posted) the instructions which he had received.
- ☐ 4. Told us how he thought the change should be handled.

V-60 My supervisor attempts to maintain discipline by

- ☐ 1. Letting each employee be responsible for his own conduct once he knows the rules.
- ☐ 2. Helping employees work out a common standard of action based on the rules.
- ☐ 3. Taking direct personal action against serious violators of the rules.
- ☐ 4. Treating all employees alike and according to the rules.

IV-61 Supervisors seem to be chosen around here on the basis of

- ☐ 1. How well they are liked by fellow employees
- ☐ 2. Their ability to influence people to get things done.
- ☐ 3. How well they know official policy.
- ☐ 4. How well they know the technical aspect of the work.

V-62 I feel that the main reason my supervisor handles the above situations the way he does is:

- ☐ 1. The attitude of his boss about supervision.
- ☐ 2. The general company policy on supervision.
- ☐ 3. His own attitude about supervision.
- ☐ 4. The attitude of his employees about supervision.
- ☐ 5. Other (explain) _____
- ☐ 9. I have no idea.

V-63 How do you feel about the relationship between you and your supervisor?

- ☐ 1. Completely satisfied.
- ☐ 2. Very satisfied.
- ☐ 3. Quite satisfied.
- ☐ 4. Somewhat satisfied.
- ☐ 5. Not satisfied.

V-64 How do you feel about the way your supervisor handles his (her) job?

- ☐ 1. Completely satisfied.
- ☐ 2. Very satisfied.
- ☐ 3. Quite satisfied.
- ☐ 4. Somewhat satisfied.
- ☐ 5. Not satisfied.

The following questions deal with your personal attitudes and opinions about a number of important social and personal questions. The best answer to each statement below is your personal opinion.

VI-40 Even though freedom of speech for all groups is a worthwhile goal, it is unfortunately necessary to restrict the freedom of certain political groups.

- 1. I disagree very much.
- 2. I disagree on the whole.
- 3. I disagree a little.
- 4. I agree a little.
- 5. I agree on the whole.
- 6. I agree very much.

VI-41 The worst crime a person could commit is to attack publicly the people who believe in the same thing he does.

- 6. I agree very much.
- 5. I agree on the whole.
- 4. I agree a little.
- 3. I disagree a little.
- 2. I disagree on the whole.
- 1. I disagree very much.

VI-42 It is only natural that a person would have a much better acquaintance with ideas he believes in than with ideas he opposes.

- 1. I disagree very much.
- 2. I disagree on the whole.
- 3. I disagree a little.
- 4. I agree a little.
- 5. I agree on the whole.
- 6. I agree very much.

VI-43 In this complicated world of ours the only way we can know what's going on is to rely on leaders or experts who can be trusted.

- 1. I disagree very much.
- 2. I disagree on the whole.
- 3. I disagree a little.
- 4. I agree a little.
- 5. I agree on the whole.
- 6. I agree very much.

VI-44 The present is all too often full of unhappiness. It is only the future that counts.

- 6. I agree very much.
- 5. I agree on the whole.
- 4. I agree a little.
- 3. I disagree a little.
- 2. I disagree on the whole.
- 1. I disagree very much.

VI-45 It is only when a person devotes himself to an ideal or cause that life becomes meaningful.

- 6. I agree very much.
- 5. I agree on the whole.
- 4. I agree a little.
- 3. I disagree a little.
- 2. I disagree on the whole.
- 1. I disagree very much.

VI-46 There are two kinds of people in this world: those who are for the truth and those who are against the truth.

- 1. I disagree very much.
- 2. I disagree on the whole.
- 3. I disagree a little.
- 4. I agree a little.
- 5. I agree on the whole.
- 6. I agree very much.

VI-47 Man on his own is a helpless and miserable creature.

- 1. I disagree very much.
- 2. I disagree on the whole.
- 3. I disagree a little.
- 4. I agree a little.
- 5. I agree on the whole.
- 6. I agree very much.

VI-48 It is only natural for a person to be rather fearful of the future.

- 6. I agree very much.
- 5. I agree on the whole.
- 4. I agree a little.
- 3. I disagree a little.
- 2. I disagree on the whole.
- 1. I disagree very much.

VI-49 It is better to be a dead hero than a live coward.

- 6. I agree very much.
- 5. I agree on the whole.
- 4. I agree a little.
- 3. I disagree a little.
- 2. I disagree on the whole.
- 1. I disagree very much.

VI-50 The main thing in life is for a person to want to do something important.

- 1. I disagree very much.
- 2. I disagree on the whole.
- 3. I disagree a little.
- 4. I agree a little.
- 5. I agree on the whole.
- 6. I agree very much.

VI-51 If something grows up over a long time, there will always be much wisdom in it.

- 1. I disagree very much.
- 2. I disagree on the whole.
- 3. I disagree a little.
- 4. I agree a little.
- 5. I agree on the whole.
- 6. I agree very much.

VI-52 It bothers me when something unexpected interrupts my daily routine.

- 1. I disagree very much.
- 2. I disagree on the whole.
- 3. I disagree a little.
- 4. I agree a little.
- 5. I agree on the whole.
- 6. I agree very much.

VI-53 Young people would be a lot better off if they all received strict discipline from their parents.

- 6. I agree very much.
- 5. I agree on the whole.
- 4. I agree a little.
- 3. I disagree a little.
- 2. I disagree on the whole.
- 1. I disagree very much.

VI-54 A well-ordered way of life, with regular hours and an established routine, is best for my kind of temperament.

- 6. I agree very much.
- 5. I agree on the whole.
- 4. I agree a little.
- 3. I disagree a little.
- 2. I disagree on the whole.
- 1. I disagree very much.

VI-55 Bosses should say just what is to be done and exactly how to do it if they expect us to do a good job.

- 1. I disagree very much.
- 2. I disagree on the whole.
- 3. I disagree a little.
- 4. I agree a little.
- 5. I agree on the whole.
- 6. I agree very much.

VI-56 I am not, and never have been, the sort of person who would do something dangerous for the thrill of it.

- 6. I agree very much.
- 5. I agree on the whole.
- 4. I agree a little.
- 3. I disagree a little.
- 2. I disagree on the whole.
- 1. I disagree very much.

VI-57 Do things here at work ever make you feel "jumpy" or nervous?

- 1. Never.
- 2. Very seldom.
- 3. Seldom.
- 4. Sometimes.
- 5. Quite often.
- 6. Very often.

VI-58 When things get boring, I'm the sort of person who likes to stir up some excitement.

- 1. I agree very much.
- 2. I agree on the whole.
- 3. I agree a little.
- 4. I disagree a little.
- 5. I disagree on the whole.
- 6. I disagree very much.

VI-59 Frankly, most things that happen to me don't affect my feelings much one way or the other.

- 1. I agree very much.
- 2. I agree on the whole.
- 3. I agree a little.
- 4. I disagree a little.
- 5. I disagree on the whole.
- 6. I disagree very much.

VI-60 How hard do you usually have to work in order to get your work done?

- 1. I hardly ever get done, although I work very hard to do so.
- 2. I know I can hardly ever get done anyway, so I work at the pace that seems most comfortable for me.
- 3. I sometimes get done, but I have to work very hard to do so.
- 4. I sometimes get done, and I work at the pace that seems most comfortable for me.
- 5. I almost always get done, but I have to work very hard to do so.
- 6. I almost always get done, and I work at the pace that seems most comfortable for me.

V-67 The following questions are about the group of people with whom you work.

About how many people are there in the group with whom you work?

- ☐ 1. 2
- ☐ 2. 3 - 5
- ☐ 3. 6 - 10
- ☐ 4. 11 - 15
- ☐ 5. More than 15
- ☐ 6. I don't work with any one group of people.

V-68 Do you feel that you are really a part of your work group?

- ☐ 1. I'm really a part of my work group.
- ☐ 2. I'm included in most ways.
- ☐ 3. I'm included in some ways, but not in others.
- ☐ 4. I don't feel I really belong.
- ☐ 5. I don't work with any one group of people.

V-69 If you had a chance to do the same kind of work for the same pay in another work group, how would you feel about moving?

- ☐ 1. I would want very much to move.
- ☐ 2. I would rather move than stay where I am.
- ☐ 3. It would make no difference to me.
- ☐ 4. I would rather stay where I am than move.
- ☐ 5. I would want very much to stay where I am.
- ☐ 6. I don't work with any one group of people.

How does your work group compare with other work groups in this company on each of the following points?

V-70 The way members get along together 1. ☐ Better than most 2. ☐ About the same as most 3. ☐ Not as well as most

V-71 The way members stick together 1. ☐ Better than most 2. ☐ About the same as most 3. ☐ Not as well as most

V-72 The way members help each other on the job 1. ☐ Better than most 2. ☐ About the same as most 3. ☐ Not as well as most

4. ☐ I don't work with any one group of people.

V-73 All things considered, how easy would it be for XXXXXXXXXX to find someone else to do the job you are now doing?

- ☐ 1. Very difficult.
- ☐ 2. Fairly difficult.
- ☐ 3. A little bit difficult.
- ☐ 4. Fairly easy.
- ☐ 5. Very easy.
- ☐ 9. Don't know.

V-75

As far as you can tell, what do your supervisors think about your work performance here at [REDACTED]?

- ☐ 1. They like it very much.
- ☐ 2. They like it.
- ☐ 3. They like most things about it, but there are some exceptions.
- ☐ 4. There are several things about my work performance that they don't like.
- ☐ 5. There are many things about my work performance that they don't like.
- ☐ 9. Don't know.

V-76

How qualified do you feel you are to handle different jobs in this company?

- ☐ 1. Much more than most employees.
- ☐ 2. More than most employees.
- ☐ 3. About the same as most employees.
- ☐ 4. Less than most employees.
- ☐ 5. Much less than most employees.

V-77

Considering what you want in a job, how do the other jobs for which you are qualified compare with your present job?

- ☐ 1. All are better than my present job.
- ☐ 2. Most are better but a few are worse than my present job.
- ☐ 3. Some are better and some are worse than my present job.
- ☐ 4. A few are better but most are worse than my present job.
- ☐ 5. All are worse than my present job.

The check list on the next page gives you an opportunity to express how you feel about certain aspects of your job. Consider the first aspect listed in the column to the left. Place a check mark under the statement in Column A which best describes how satisfied you are with this aspect of your job. Then decide whether you want an increase in this aspect of your job, a decrease in it, or no change in it, and place a check mark under the appropriate statement in Column B. Then go on to the next aspect.

Example: Suppose the job aspect had to do with the amount of illumination on your job. If you felt "somewhat satisfied" with the amount of illumination and if you wanted a decrease in illumination (to reduce glare), you should put one check mark under "somewhat satisfied" in Column A and one check mark under "a decrease" in Column B.

Job Aspect	Column A					Column B		
	Completely satisfied	Very satisfied	Quite satisfied	Somewhat satisfied	Not satisfied	For this aspect I would want to see:		a decrease
						an increase	no change	
1. The amount of variety in IV-53 my work.....	—	—	—	—	—	—	—	—
2. The amount of work re- IV-54 quired on my job.....	—	—	—	—	—	—	—	—
3. The degree of accuracy IV-55 demanded by my job.....	—	—	—	—	—	—	—	—
4. My control over the pace IV-56 of my work.....	—	—	—	—	—	—	—	—
5. The importance of my job IV-57 for the company.....	—	—	—	—	—	—	—	—
6. The amount of supervision IV-58 I get on my job.....	—	—	—	—	—	—	—	—
7. The amount of skill needed IV-59 on my job.....	—	—	—	—	—	—	—	—
8. The amount of responsi- IV-60 bility demanded by my job..	—	—	—	—	—	—	—	—
9. The amount of planning I IV-61 have to do on my job.....	—	—	—	—	—	—	—	—
10. The amount of judgment I IV-62 have to use or my job.....	—	—	—	—	—	—	—	—
11. The degree to which my IV-63 work is interesting.....	—	—	—	—	—	—	—	—
12. The amount of security I IV-64 feel on my job.....	—	—	—	—	—	—	—	—
13. My chances for promotion to IV-65 a better job.....	—	—	—	—	—	—	—	—
14. The amount of pay I get on IV-66 my job.....	—	—	—	—	—	—	—	—

X-36 How satisfied are you with the way changes are handled around here?

- ☐ 1. Completely satisfied
- ☐ 2. Very satisfied
- ☐ 3. Quite satisfied
- ☐ 4. Somewhat satisfied
- ☐ 5. Not satisfied

X-37 How satisfied are you with the kind of work you do?

- ☐ 1. Completely satisfied
- ☐ 2. Very satisfied
- ☐ 3. Quite satisfied
- ☐ 4. Somewhat satisfied
- ☐ 5. Not satisfied

X-38 How satisfied are you with the company you work for?

- ☐ 1. Completely satisfied
- ☐ 2. Very satisfied
- ☐ 3. Quite satisfied
- ☐ 4. Somewhat satisfied
- ☐ 5. Not satisfied

X-39 Taking everything into account, how satisfied are you with your job?

- ☐ 1. Completely satisfied
- ☐ 2. Very satisfied
- ☐ 3. Quite satisfied
- ☐ 4. Somewhat satisfied
- ☐ 5. Not satisfied

IV-67 Why are you working? _____

IV-68 If you received a large inheritance or a large sum of money from some source, would you still work?

Yes _____ No _____
Why? _____

IV-69 If you received a large inheritance or a large sum of money from some source, would you still work at _____?

Yes _____ No _____
Why? _____

X-35 How easy would it be for you to get a job as good as the one you now have at some other company?

- ☐ 1. Very easy
- ☐ 2. Fairly easy
- ☐ 3. A little bit difficult
- ☐ 4. Fairly difficult
- ☐ 5. Very difficult
- ☐ 6. I don't know

X-34 How many employees in the company think that your job is more desirable than their own jobs?

- ☐ 1. Almost all
- ☐ 2. Many
- ☐ 3. Some
- ☐ 4. Few
- ☐ 5. Almost none

X-33 What do you expect to be doing five years from now?

- ☐ 1. Being a supervisor in this company
- ☐ 2. Working at the same job in this company
- ☐ 3. Working at a better job in this company
- ☐ 4. Being a supervisor in some other company
- ☐ 5. Working at a nonsupervisory job elsewhere
- ☐ 6. Running own business
- ☐ 7. Being a housewife
- ☐ 8. Retired
- ☐ 9. Other _____
- ☐ 0. Don't know

IV-70 Are you now taking any special training?

- ☐ 1. No, and I don't really plan to
- ☐ 2. No, and I don't know whether I will or not
- ☐ 3. No, but I plan to within 5 years
- ☐ 4. Yes, training to help me on the job I'm on now
- ☐ 5. Yes, training for a different job in this company
- ☐ 6. Yes, training for a job elsewhere
- ☐ 7. Yes, training to help me enter a profession or start my own business

X-32 What do you think the possibilities are of your getting a promotion in the next year?

- ☐ 1. Very likely
- ☐ 2. Fairly likely
- ☐ 3. Likely in some ways, not in others
- ☐ 4. Unlikely
- ☐ 5. Very unlikely

X-17 How many years have you worked since leaving school?

- ☐ 1. Less than 1 year
- ☐ 2. 1 - 2 years
- ☐ 3. 3 - 5 years
- ☐ 4. 6 - 10 years
- ☐ 5. 11 or more years

X-18 How many more years do you expect to work?

- ☐ 1. Less than 1 year
- ☐ 2. 1 - 2 years
- ☐ 3. 3 - 5 years
- ☐ 4. 6 - 10 years
- ☐ 5. 11 or more years
- ☐ 9. I don't know

X-12 When were you hired by _____? Year _____ Month _____

X-10,11 What is your present job title? (example: key-punch operator) _____

X-13 When did you start on your present job? Year _____ Month _____

X-4,5 What is your section and department? _____

X-14 Within the past 6 months have you tried to transfer from your present job to another job or department within the company? Yes _____ No _____

X-15 Within the past 6 months have you registered with any employment agency or applied for a job with any other organization? Yes _____ No _____

X-16 How many people do you supervise directly here at work? _____ people

X-23 Are you the only wage earner in your household? Yes _____ No _____

X-24 Are you the main wage earner in your household? Yes _____ No _____

X-25 Could your household live adequately if you were not working? Yes _____ No _____

X-26 Is your household living adequately now? Yes _____ No _____

X-27 What is your present salary before taxes and other deductions? _____ dollars

Check whether this is per month _____, week _____, or 2 weeks _____.

X-9 Date of birth: Month _____ Day _____ Year _____

X-6 Sex: Male _____ Female _____

X-7 Marital status: Single _____ Married _____ Divorced _____
Separated _____
Widowed _____

X-8 How many years of school have you completed? Circle highest grade completed.

7	8	9	10	11	12	Some College	College	Graduate Work
---	---	---	----	----	----	-----------------	---------	------------------

X-19 Have you spent most of your life in a

- ☐ 1. farm area
- ☐ 2. small town
- ☐ 3. city

X-20 What is (was) your father's occupation? (examples: farmer, machinist, doctor) _____

X-21 What is (was) your father's annual income?

- ☐ 1. less than 3000 dollars
- ☐ 2. 3000 - 7000 dollars
- ☐ 3. 7000 - 15,000 dollars
- ☐ 4. over 15,000 dollars

X-22 In your community do you consider yourself a member of the

- ☐ 1. upper class
- ☐ 2. upper middle class
- ☐ 3. middle class
- ☐ 4. lower middle class
- ☐ 5. working class
- ☐ 6. lower class

Thank you for your cooperation. Now tear off the ballot at the bottom of the cover page of the questionnaire. Place the ballot in the "Ballot Box" and place the questionnaire in the box marked "Questionnaires".

PRETEST SUPERVISORY QUESTIONNAIRE

LABOR AND INDUSTRIAL RELATIONS CENTER

Michigan State University

SUPERVISORY QUESTIONNAIRE

Project OE 112-E-4

NOTE: The Supervisory Questionnaire is exactly the same as the Employee Pretest Questionnaire except for the following pages.

MICHIGAN STATE UNIVERSITY

OF AGRICULTURE AND APPLIED SCIENCE • EAST LANSING

LABOR AND INDUSTRIAL RELATIONS CENTER

Project OE 112-E-4

396

November 1957

To: Employees of [REDACTED] Automobile Insurance Company

The Labor and Industrial Relations Center at Michigan State University is carrying on a broad program of research having to do with people working together effectively in industrial organizations. Much of the research consists of getting the ideas and opinions of people about their jobs.

You are being asked to fill out a questionnaire as a part of this series of studies. Your answers, along with those from people in other organizations, will be analyzed to help discover what things are most important in making the working situation better for the people in it.

The value of this study depends upon the sincerity and care with which you answer the questions. It is important to get your real feelings. We are looking for frank statements about your attitudes, feelings, opinions and judgments about certain aspects of your job.

The answers that you give will be made available only to the research team in the Labor and Industrial Relations Center. No one connected in any way with your organization will see or use any of the individual questionnaires or be able in any way to find out what kind of answers you have given. Your information will be held in the strictest confidence and the results of the study will be tabulated on a group basis only.

Reports on the general findings from the study will be prepared for you, the company and the general public.

Einar Hardin
Research Associate
Labor and Industrial Relations Center
Michigan State University

Please print your name below. When you have finished the questionnaire, tear this part off and place it in the "ballot box" by the door. THIS INFORMATION WILL BE USED TO HELP US ANALYZE THE QUESTIONNAIRE. IT WILL NOT BE AVAILABLE TO ANYONE IN THE COMPANY.

Name _____

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The following questions are concerned with the contacts you have with other people in your work and with how you feel about the information you receive regarding changes in your job.

S II-40 During a regular workday I generally exchange information connected with my work with the following number of people:

- ☐ 1. None
- ☐ 2. 1 - 2
- ☐ 3. 3 - 5
- ☐ 4. 6 - 10
- ☐ 5. More than 10

S II-41 My job requires me to give information to my own superior:

- ☐ 1. Very frequently
- ☐ 2. Often
- ☐ 3. Sometimes
- ☐ 4. Seldom
- ☐ 5. Very infrequently

S II-42 When there is some gossip or information in the "grape-vine":

- ☐ 1. I am always the first one to hear about it.
- ☐ 2. I am usually one of the first to hear about it.
- ☐ 3. I hear about it at about the same time as everyone else does.
- ☐ 4. I am always one of the last to hear about it.
- ☐ 5. I never hear about it.

S II-43 How satisfied are you with the information you receive concerning changes in the company and in your job?

- ☐ 1. Completely satisfied
- ☐ 2. Very satisfied
- ☐ 3. Quite satisfied
- ☐ 4. Somewhat satisfied
- ☐ 5. Not satisfied

S II-44 How satisfied are you with the number of opportunities you have to talk with the people you supervise?

- ☐ 1. Completely satisfied
- ☐ 2. Very satisfied
- ☐ 3. Quite satisfied
- ☐ 4. Somewhat satisfied
- ☐ 5. Not satisfied

S II 45 How satisfied are you with the opportunity you have to discuss things with your immediate supervisor regarding your job?

- _____ 1. Completely satisfied
- _____ 2. Very satisfied
- _____ 3. Quite satisfied
- _____ 4. Somewhat satisfied
- _____ 5. Not satisfied

S II-46 How much information has the company given the employees this fall?

- _____ 1. Much more than usual
- _____ 2. More than usual
- _____ 3. About the same as usual
- _____ 4. Less than usual
- _____ 5. Much less than usual

In the right-hand column next to each item, place a check mark under the statement which best describes your satisfaction with the information received from the company.

ASPECTS OF INFORMATION	Satisfaction				
	Completely satisfied	Very satisfied	Quite satisfied	Somewhat satisfied	Not satisfied
S II-47 1. Amount of information.....	_____	_____	_____	_____	_____
S II-48 2. Accuracy of information.....	_____	_____	_____	_____	_____
S II-49 3. Understandability of information...	_____	_____	_____	_____	_____
S II-50 4. Getting information soon enough.....	_____	_____	_____	_____	_____

S13.

The following items deal with company information about the IBM "650":

S III-40 I can recall first hearing that the company was installing an IBM "650" computer:

- ☐ 1. More than a year ago
- ☐ 2. Between six months and one year ago
- ☐ 3. Several months ago
- ☐ 4. A few weeks ago
- ☐ 5. A few days ago
- ☐ 6. I didn't know until today that a computer was to be installed.

S III-41 Of the information distributed about the IBM "650" computer prior to its installation I think I have received:

- ☐ 1. All of it
- ☐ 2. Most of it
- ☐ 3. Some of it
- ☐ 4. Only a little of it
- ☐ 5. None of it

S III-42 I have discussed the IBM "650" computer with others:

- ☐ 1. Very often
- ☐ 2. Often
- ☐ 3. Sometimes
- ☐ 4. Not often
- ☐ 5. Never

S III-43 Of the information I have received about the IBM "650" computer prior to its installation I felt it was necessary to pass along:

- ☐ 1. All of it
- ☐ 2. Most of it
- ☐ 3. Some parts of it
- ☐ 4. Only a little of it
- ☐ 5. None of it

The purpose of the following questions is to get your idea about the practical value of different supervisory practices for this organization. We are not asking you which method would be ideal nor which method is now actually being followed in your department. Instead, we are asking you to tell us which method you consider the most effective supervisory method in this organization.

Directions: Check the one answer which you feel would be the most effective supervisory method for each situation. Sometimes you may not see much difference between two or more of the choices or may not like any of them. Always make a choice even if you are forced to guess.

SIV-42 The real function of staff specialists is to

- ☐ 1. provide factual material that the supervisor can use in building up the technical efficiency of his own department.
- ☐ 2. provide the supervisor with new ideas that he can use to stimulate his men and keep them interested in improving their efficiency.
- ☐ 3. develop reliable methods and programs that the supervisor can use and depend on.
- ☐ 4. provide qualified people that the supervisor can call on when his department needs help in solving problems.

SIV-43 When usual methods fail to get action on an important departmental problem, the supervisor's best bet for getting results is

- ☐ 1. the advice and backing of his immediate superior.
- ☐ 2. the employees, who can informally back his request for action.
- ☐ 3. his own organized and forceful presentation of the facts.
- ☐ 4. his informal personal contacts with key people in the plant.

SIV-44 To understand how the employees really feel about things, the supervisor should

- ☐ 1. maintain a frank, informal, give-and-take relationship with them.
- ☐ 2. keep objective records of things that reflect their feelings -- like production, absenteeism, suggestions, and complaints.
- ☐ 3. arrange for informal private interviews with each employee.
- ☐ 4. notice their reactions to the work, to him, and to his orders.

S.V-45 When a supervisor gets an order that doesn't seem justified and that the employees dislike, he should

- _____ 1. study the order; then either change it so that he can personally justify its enforcement or send it back up the line with his objections.
- _____ 2. realize that everyone makes mistakes, and save his superiors unnecessary trouble by explaining the order in such a way that the employee will accept it.
- _____ 3. realize that there probably is a good reason for the order, and that if future orders are to be respected, this one must be carried out.
- _____ 4. explain to the employees that as supervisor he must see that the order is carried out, but that he'll help them organize their criticisms of it for presentation up the line.

S.V-46 If official policies are really to be followed, they should be

- _____ 1. clearly presented in the supervisor's handbook, with the names of the authorities to consult when any questions come up.
- _____ 2. presented as general guides for the employees, who should be able to get unpopular policies reconsidered.
- _____ 3. laid out as general rules that the supervisor is authorized to interpret and apply in his department.
- _____ 4. set up as general guides that the supervisor can change slightly to fit individual cases and problems.

S.V-47 The best way to get steady and dependable production is

- _____ 1. praising employees when they deserve it, and appealing to their desires for self-improvement.
- _____ 2. careful direction and disciplining of employees.
- _____ 3. to establish a pay schedule based on a job evaluation.
- _____ 4. through the employees' desire to be part of a satisfying work team.

S.V-48 The best level of coordination between departments comes mostly from

- _____ 1. training supervisors to handle minor problems between departments diplomatically, to avoid unnecessary conflicts.
- _____ 2. selecting supervisors who really know their work and take pride in competing with each other to get out first-class work.
- _____ 3. having a clear-cut delegation of authority for each department so that there is absolutely no overlapping of responsibility between supervisors.
- _____ 4. developing supervisory planning sessions in which the supervisors work out solutions to conflicts between departments.

SV-49 The average supervisor needs development most in

- _____ 1. the proper use of official channels and forms for making reports, filing complaints, handling transfers, requisitioning, etc.
- _____ 2. how to understand the employees' ideas, problems, and standards.
- _____ 3. the basic technical knowledge he'll need in the department he's supervising.
- _____ 4. the ways to deal with individuals efficiently without causing friction.

SV-50 If several employees are led informally by a very uncooperative individual, the supervisor should

- _____ 1. ask the personnel department to have the leader transferred.
- _____ 2. call them all in and talk the problem through with them.
- _____ 3. discredit this rival leader by showing the group how and where he is wrong.
- _____ 4. interest the leader in something else, and give the men more individual attention.

SV-51 When hiring a new employee, the supervisor should select a man who is

- _____ 1. intelligent and has a good deal of drive.
- _____ 2. a hard worker and who doesn't need much supervision.
- _____ 3. open-minded and willing to share responsibilities.
- _____ 4. agreeable and willing to follow the regulations.

SV-52 When a major reorganization of the employees' work is necessary in his department, the supervisor should

- _____ 1. ask the personnel department to reassign the employees impartially.
- _____ 2. call the employees together and get their suggestions about the reorganization.
- _____ 3. use this opportunity to shift employees to jobs where each of them will feel happiest and thus work best.
- _____ 4. use his own judgment and assign each employee to the kind of work the supervisor knows he does best.

SV-53 An ideal supervisor should

- _____ 1. avoid use of authority, and respect the employees' opinions and attitudes while helping them to work out common standards and methods of efficiency.
- _____ 2. avoid making snap judgments, and distribute both duties and privileges impartially.
- _____ 3. avoid "passing the buck" and make prompt, firm, clear decisions that his employees will respect and follow.
- _____ 4. avoid unnecessary conflicts, and use praise and personal attention to help each individual develop his abilities.

SV-54 Employees will turn out the highest production if the supervisor

- ____ 1. helps them work out departmental standards and teamwork that fit current needs.
- ____ 2. sees that the work is carried out according to the specific instructions given by higher management.
- ____ 3. uses psychology to aid each individual in developing himself to his highest potential.
- ____ 4. uses his practical knowledge, initiative, and organizing ability to run his department at maximum efficiency.

SV-55 To maintain departmental discipline, the supervisor should

- ____ 1. help the employees work out a common standard of action based on the rules.
- ____ 2. treat all employees alike and according to the established rules.
- ____ 3. see to it that each employee learns company rules and can therefore be responsible for his own conduct.
- ____ 4. take direct personal action on anyone who commits a serious violation of company rules.

SV-56 A smooth-running department depends mostly on

- ____ 1. how well the supervisor helps each employee to realize and use his abilities.
- ____ 2. how well the supervisor plans and directs the work.
- ____ 3. the understanding, responsibility, and teamwork developed by the work force.
- ____ 4. the systematic breakdown of the work load into separate and clearly described job duties for each employee.

SV-57 The rating or promotion of an employee should be based primarily on

- ____ 1. the ambition and ability to learn that he has shown.
- ____ 2. his technical knowledge and ability, and his departmental experience.
- ____ 3. objective records showing the amount of experience he's had, his length of employment, and his job skills.
- ____ 4. the recommendations of a supervisor-employee merit-rating committee.

SV-58 If an employee keeps coming in with an unreasonable complaint, the supervisor should

- ____ 1. help him to become interested in something more constructive.
- ____ 2. politely but firmly show him just why the complaint is not justified.
- ____ 3. talk the problem over with him, trying to understand how he feels about it.
- ____ 4. send him up the line to the proper authority for an official and final answer that the employee will have to accept.

S V-59 Informal personal relationships between supervisor and employees should be

- _____ 1. accepted the same way as any other friendship in which there is mutual respect of one another's opinions and individuality.
- _____ 2. avoided, because a supervisor who mingles with his employees loses their respect of him as a fair and impartial judge of their merits.
- _____ 3. generally avoided, except when the employee has been outstandingly responsible in his work and would make a good assistant in the department.
- _____ 4. encouraged, so that the supervisor can get to know each man's interests and stimulate him to develop his abilities.

S II-60 An employee's suggestion for an improvement in the department should be

- _____ 1. passed up through the supervisor, whose knowledge of the technical needs of the department may enable him to improve the suggestion.
- _____ 2. encouraged by the supervisor, so that the employee's initiative is developed and supported.
- _____ 3. passed around among others in the department for their comments and suggestions before it's sent up.
- _____ 4. sent directly to the Operating Committee.

S V-61 A supervisor should train a new employee by

- _____ 1. showing him repeatedly how to do the job, until the supervisor sees that he's developed efficient work habits in it.
- _____ 2. making the job interesting to him by praising him when he does it well and correcting him tactfully when he shows his weak points.
- _____ 3. giving him a complete written set of instructions to study, so that he can learn the right methods from the start.
- _____ 4. explaining what the job requires, then allowing him to develop his own methods from the supervisor's suggestions and his own experience and knowledge.

S V-62 When a new program begins, the supervisor should get

- _____ 1. enough information and freedom in carrying it out so that he can meet the personal needs of individual employees.
- _____ 2. firsthand information about his duties, and personal authority to carry them out in the way he thinks best.
- _____ 3. advance information about the program, so that he can get his employees' ideas about it and then help develop it.
- _____ 4. a clear description of his duties in the program, and a statement that he'll have the official backing needed to carry them out.

SIV-63 The supervisor can give out new orders and information most effectively by

- ___ 1. discussing them with the employees and getting their questions and comments.
- ___ 2. sending written notices to every employee concerned.
- ___ 3. explaining the orders or information to each employee concerned.
- ___ 4. telling each employee about them informally at the appropriate time and place.

SIV-64 A group leader would be most helpful to his supervisor if he

- ___ 1. evaluated each employee's complaints and passed on only those which were legitimate grievances under the regulations.
- ___ 2. helped the employees to organize and present their ideas about departmental problems.
- ___ 3. disciplined employees who took unfair advantages of regulations to justify loafing on the job.
- ___ 4. tried to help or advise individual employees who went to him to discuss their personal problems and complaints.

SIV-65 When a man is recommended for promotion to supervisor, the most important thing to consider is his

- ___ 1. ability to use practical psychology in getting things done.
- ___ 2. technical ability, initiative, creativity, and experience in the department.
- ___ 3. understanding of, and respect for, official policies and programs.
- ___ 4. standing among the employees as a leader.

SIV-66 A new employee will get along all right if he

- ___ 1. works with the other men in his department in turning out the day's production.
- ___ 2. follows the rules and regulations and is reliable.
- ___ 3. really tries to take advantage of opportunities to improve himself.
- ___ 4. follows the supervisor's instructions and develops the right work habits.

The following questions are about the group of people you supervise.

SV-67 About how many people are there in the group that you supervise directly?

- ☐ 1. 2
- ☐ 2. 3 - 5
- ☐ 3. 6 - 10
- ☐ 4. 11 - 15
- ☐ 5. More than 15

SV-68 Do you feel that you are really a part of the work group you supervise?

- ☐ 1. I'm really a part of this group.
- ☐ 2. I'm included in most ways.
- ☐ 3. I'm included in some ways, but not in others.
- ☐ 4. I don't feel I really belong.

SV-69 If you had a chance to be a supervisor for the same pay in another work group, how would you feel about moving?

- ☐ 1. I would want very much to move.
- ☐ 2. I would rather move than stay where I am.
- ☐ 3. It would make no difference to me.
- ☐ 4. I would rather stay where I am than move.
- ☐ 5. I would want very much to stay where I am.

How does the work group you supervise compare with other work groups in this company on each of the following points?

SV-70 The way members get along together 1. ☐ Better than most 2. ☐ About the same as most 3. ☐ Not as well as most

SV-71 The way members stick together 1. ☐ Better than most 2. ☐ About the same as most 3. ☐ Not as well as most

SV-72 The way members help each other on the job 1. ☐ Better than most 2. ☐ About the same as most 3. ☐ Not as well as most

SV-74 - I feel closer to the people I supervise than to the people who supervise me.

- ☐ 1. I agree very much.
- ☐ 2. I agree somewhat.
- ☐ 3. I agree a little.
- ☐ 4. I disagree a little.
- ☐ 5. I disagree somewhat.
- ☐ 6. I disagree very much.

S-V-73 All things considered, how easy would it be for [REDACTED]
to find someone else to do the job you are now doing?

- ☐ 1. Very difficult
- ☐ 2. Fairly difficult
- ☐ 3. A little bit difficult
- ☐ 4. Fairly easy
- ☐ 5. Very easy
- ☐ 6. Don't know

SX-35 How easy would it be for you to get a job as good as the one you now have at some other company?

- ☐ 1. Very easy
- ☐ 2. Fairly easy
- ☐ 3. A little bit difficult
- ☐ 4. Fairly difficult
- ☐ 5. Very difficult
- ☐ 6. I don't know

SX-34 How many supervisors in the company think that your job is more desirable than their own jobs?

- ☐ 1. Almost all
- ☐ 2. Many
- ☐ 3. Some
- ☐ 4. Few
- ☐ 5. Almost none

SX-33 What do you expect to be doing five years from now?

- ☐ 2. Working at the same job in this company
- ☐ 3. Working at a better job in this company
- ☐ 4. Being a supervisor in some other company
- ☐ 5. Working at a nonsupervisory job elsewhere
- ☐ 6. Running own business
- ☐ 7. Being a housewife
- ☐ 8. Retired
- ☐ 9. Other _____
- ☐ 0. Don't know

S IV-70 Are you now taking any special training?

- ☐ 1. No, and I don't really plan to
- ☐ 2. No, and I don't know whether I will or not
- ☐ 3. No, but I plan to within 5 years
- ☐ 4. Yes, training to help me on the job I'm on now
- ☐ 5. Yes, training for a different job in this company
- ☐ 6. Yes, training for a job elsewhere
- ☐ 7. Yes, training to help me enter a profession or start my own business

SX-32 What do you think the possibilities are of your getting a promotion in the next year?

- ☐ 1. Very likely
- ☐ 2. Fairly likely
- ☐ 3. Likely in some ways, not in others
- ☐ 4. Unlikely
- ☐ 5. Very unlikely

- X-12 When were you hired by _____? Year _____ Month _____
- X-10,11 What is your present job title? (example: department head)

- X-13 When did you start on your present job? Year _____ Month _____
- X-4,5 What is your section and department? _____
- X-14 Within the past 6 months have you tried to transfer from your present job to another job or department within the company? Yes _____ No _____
- X-15 Within the past 6 months have you registered with any employment agency or applied for a job with any other organization? Yes _____ No _____
- X-23 Are you the only wage earner in your household? Yes _____ No _____
- X-24 Are you the main wage earner in your household? Yes _____ No _____
- X-25 Could your household live adequately if you were not working? Yes _____ No _____
- X-26 Is your household living adequately now? Yes _____ No _____
- X-27 What is your present salary before taxes and other deductions? _____ dollars
Check whether this is per month _____, week _____, or 2 weeks _____.
- X-7 Date of birth: Month _____ Day _____ Year _____
- X-6 Sex: Male _____ Female _____
- X-7 Marital status: Single _____ Married _____ Divorced _____
Separated _____
Widowed _____
- X-8 How many years of school have you completed? Circle highest grade completed.
- | | | | | | | | | |
|---|---|---|----|----|----|-----------------|---------|------------------|
| 7 | 8 | 9 | 10 | 11 | 12 | Some
College | College | Graduate
Work |
|---|---|---|----|----|----|-----------------|---------|------------------|

POSTTEST

MICHIGAN STATE UNIVERSITY

Labor and Industrial Relations Center

May 1958

To: Employees of [REDACTED] Automobile Insurance Company

The Labor and Industrial Relations Center at Michigan State University is carrying on a broad program of research having to do with people working together effectively in industrial organizations. Much of the research consists of getting the ideas and opinions of people about their jobs.

Last November you were asked to fill out a questionnaire as a part of this series of studies. We are grateful for the very substantial help you gave us at that time and are finding the information we received very helpful in our research.

It is important to our research to know whether the conclusions we obtain at one time will remain true at a later date. We are therefore asking you to participate in this second questionnaire study.

As you go through this questionnaire, those of you who participated in the November study will recognize questions that we also asked in November. We have included them because we need to know how you look on your job and the company at this time.

Those of you who were not present to participate in the November study will have an opportunity to express how you feel about a variety of aspects of your job and your working situation.

The value of this study depends on the sincerity and care with which you answer the questions. It is important to get your real feelings. We are looking for frank statements about your attitudes, feelings, opinions and judgments about your job.

The answers that you give will be made available only to the research team in the Labor and Industrial Relations Center. No one connected in any way with your organization will see or use any of the individual questionnaires or be able in any way to find out what kind of answers you have given. Your information will be held in the strictest confidence and the results of the study will be tabulated on a group basis only.

A report on the findings of this study and of the November study will be made to you before the end of 1958.

Einar Hardin
Research Associate
Labor and Industrial Relations Center
Michigan State University

Please print your name below. When you have finished the questionnaire, tear this part off and place it in the "ballot box" by the door. THIS INFORMATION WILL BE USED TO HELP US ANALYZE THE QUESTIONNAIRE. IT WILL NOT BE AVAILABLE TO ANYONE IN THE COMPANY.

THE HISTORY OF THE UNITED STATES OF AMERICA

The history of the United States of America is a story of growth and development. It begins with the first settlers who came to the continent in search of a new life. They found a land of opportunity and freedom, and they built a nation that has become a model for the world. The story is one of struggle and triumph, of challenges and achievements. It is a story that has inspired generations and will continue to do so for many years to come.

The early years of the United States were marked by a period of exploration and discovery. The first settlers, who came from Europe, found a land of vast natural resources and a people who were eager to learn about the new world. They built a nation that was based on the principles of liberty and justice for all.

The United States has a rich and diverse cultural heritage. It is a land of many different peoples and traditions, each of which has contributed to the unique character of the nation. The story of the United States is a story of unity and diversity, of a people who have come together to build a better life for themselves and for the world.

The United States has a long and proud history of leadership in the world. It has been a force for good and progress, a champion of freedom and democracy. The story of the United States is a story of hope and optimism, of a people who believe in a better future for themselves and for the world.

The United States is a land of opportunity and freedom. It is a land where every person has the chance to achieve their dreams and to make a difference in the world. The story of the United States is a story of a people who have built a nation that is truly great.

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First is a check list that gives you an opportunity to express how you feel about certain aspects of your job. Consider the first aspect listed in the column to the left. Place a check mark under the statement which best describes how satisfied you are with this aspect of your job.

Job Aspect	Completely satisfied	Very satisfied	Quite satisfied	Somewhat satisfied	Not satisfied
I 4 The amount of variety in my work.....	_____	_____	_____	_____	_____
I 10 The amount of work required on my job.....	_____	_____	_____	_____	_____
I 11 The degree of accuracy de- manded by my job.....	_____	_____	_____	_____	_____
I 14 My control over the pace of my work.....	_____	_____	_____	_____	_____
I 13 The importance of my job for the company.....	_____	_____	_____	_____	_____
I 14 The amount of supervision I get on my job.....	_____	_____	_____	_____	_____
I 15 The amount of skill needed on my job.....	_____	_____	_____	_____	_____
I 16 The amount of responsibili- ty demanded by my job.....	_____	_____	_____	_____	_____
I 17 The amount of planning I have to do on my job.....	_____	_____	_____	_____	_____
I 18 The amount of judgment I have to use on my job.....	_____	_____	_____	_____	_____
I 19 The degree to which my work is interesting.....	_____	_____	_____	_____	_____
I 20 The amount of security I feel on my job.....	_____	_____	_____	_____	_____
I 21 My chances for promotion to a better job.....	_____	_____	_____	_____	_____
I 22 The amount of pay I get on my job.....	_____	_____	_____	_____	_____
-----	(1)	(2)	(3)	(4)	(5)

I 23 How do you feel about the relationship between you and your supervisor?

- ☐ 1. Completely satisfied
- ☐ 2. Very satisfied
- ☐ 3. Quite satisfied
- ☐ 4. Somewhat satisfied
- ☐ 5. Not satisfied

I 24 How satisfied are you with the way changes are handled around here?

- ☐ 1. Completely satisfied
- ☐ 2. Very satisfied
- ☐ 3. Quite satisfied
- ☐ 4. Somewhat satisfied
- ☐ 5. Not satisfied

I 25 How satisfied are you with the kind of work you do?

- ☐ 1. Completely satisfied
- ☐ 2. Very satisfied
- ☐ 3. Quite satisfied
- ☐ 4. Somewhat satisfied
- ☐ 5. Not satisfied

I 26 How satisfied are you with the company you work for?

- ☐ 1. Completely satisfied
- ☐ 2. Very satisfied
- ☐ 3. Quite satisfied
- ☐ 4. Somewhat satisfied
- ☐ 5. Not satisfied

I 27 Taking everything into account, how satisfied are you with your job?

- ☐ 1. Completely satisfied
- ☐ 2. Very satisfied
- ☐ 3. Quite satisfied
- ☐ 4. Somewhat satisfied
- ☐ 5. Not satisfied

I 28 What are the things you like best about working at [REDACTED]? _____

I 29 What are the things you like least about working at [REDACTED]? _____

1. The first part of the document is a letter from the President of the United States to the Congress, dated January 3, 1862. It is a very long letter, and it contains a great deal of information about the state of the country at that time. The President talks about the war, the economy, and the social conditions of the country. He also talks about the role of the government and the responsibilities of the citizens.

2. The second part of the document is a report from the Secretary of the Treasury, dated January 3, 1862. It is a very long report, and it contains a great deal of information about the state of the country's finances. The Secretary talks about the government's revenue, its expenses, and its debt. He also talks about the state of the country's currency and the value of its bonds.

3. The third part of the document is a report from the Secretary of the Interior, dated January 3, 1862. It is a very long report, and it contains a great deal of information about the state of the country's land and natural resources. The Secretary talks about the government's land policies, its land sales, and its management of the public lands. He also talks about the state of the country's natural resources, such as its forests, its minerals, and its water.

4. The fourth part of the document is a report from the Secretary of the War, dated January 3, 1862. It is a very long report, and it contains a great deal of information about the state of the country's military. The Secretary talks about the government's military policies, its military forces, and its military operations. He also talks about the state of the country's military equipment, its military supplies, and its military personnel.

5. The fifth part of the document is a report from the Secretary of the Navy, dated January 3, 1862. It is a very long report, and it contains a great deal of information about the state of the country's navy. The Secretary talks about the government's naval policies, its naval forces, and its naval operations. He also talks about the state of the country's naval equipment, its naval supplies, and its naval personnel.

6. The sixth part of the document is a report from the Secretary of the State, dated January 3, 1862. It is a very long report, and it contains a great deal of information about the state of the country's foreign relations. The Secretary talks about the government's foreign policies, its foreign relations, and its foreign operations. He also talks about the state of the country's foreign trade, its foreign investments, and its foreign aid.

7. The seventh part of the document is a report from the Secretary of the Education, dated January 3, 1862. It is a very long report, and it contains a great deal of information about the state of the country's education system. The Secretary talks about the government's educational policies, its educational institutions, and its educational operations. He also talks about the state of the country's educational resources, its educational personnel, and its educational outcomes.

8. The eighth part of the document is a report from the Secretary of the Agriculture, dated January 3, 1862. It is a very long report, and it contains a great deal of information about the state of the country's agriculture. The Secretary talks about the government's agricultural policies, its agricultural programs, and its agricultural operations. He also talks about the state of the country's agricultural resources, its agricultural personnel, and its agricultural outcomes.

9. The ninth part of the document is a report from the Secretary of the Commerce, dated January 3, 1862. It is a very long report, and it contains a great deal of information about the state of the country's commerce. The Secretary talks about the government's commercial policies, its commercial programs, and its commercial operations. He also talks about the state of the country's commercial resources, its commercial personnel, and its commercial outcomes.

10. The tenth part of the document is a report from the Secretary of the Labor, dated January 3, 1862. It is a very long report, and it contains a great deal of information about the state of the country's labor market. The Secretary talks about the government's labor policies, its labor programs, and its labor operations. He also talks about the state of the country's labor resources, its labor personnel, and its labor outcomes.

The following questions concern your immediate supervisor and the company you work for:

I 30 My supervisor does his best to keep me informed about changes that will affect me.

- ☐ 1. I strongly agree
- ☐ 2. I agree
- ☐ 3. I neither agree, nor disagree
- ☐ 4. I disagree
- ☐ 5. I strongly disagree

I 31 Often my supervisor's decisions are pretty arbitrary.

- ☐ 5. I strongly agree
- ☐ 4. I agree
- ☐ 3. I neither agree, nor disagree
- ☐ 2. I disagree
- ☐ 1. I strongly disagree

I 32 My supervisor is quite willing to stand up for my rights in the company.

- ☐ 1. I strongly agree
- ☐ 2. I agree
- ☐ 3. I neither agree, nor disagree
- ☐ 4. I disagree
- ☐ 5. I strongly disagree

I 33 There is not much my supervisor can do to protect my interests in the company.

- ☐ 5. I strongly agree
- ☐ 4. I agree
- ☐ 3. I neither agree, nor disagree
- ☐ 2. I disagree
- ☐ 1. I strongly disagree

I 34 The company keeps the welfare of its employees in mind whenever it makes an important decision.

- ☐ 1. I strongly agree
- ☐ 2. I agree
- ☐ 3. I neither agree, nor disagree
- ☐ 4. I disagree
- ☐ 5. I strongly disagree

I 35 The company goes out of its way to help employees who run into difficulties.

- ☐ 1. I strongly agree
- ☐ 2. I agree
- ☐ 3. I neither agree, nor disagree
- ☐ 4. I disagree
- ☐ 5. I strongly disagree

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I 36 The company is much more concerned with cost of operation than with employee welfare.

- ☐ 5. I strongly agree
- ☐ 4. I agree
- ☐ 3. I neither agree, nor disagree
- ☐ 2. I disagree
- ☐ 1. I strongly disagree

I 37 Whatever the company decides will be for the benefit of most employees.

- ☐ 1. I strongly agree
- ☐ 2. I agree
- ☐ 3. I neither agree, nor disagree
- ☐ 4. I disagree
- ☐ 5. I strongly disagree

I 38 This company seems to be run more competently than are most other companies I know about.

- ☐ 1. I strongly agree
- ☐ 2. I agree
- ☐ 3. I neither agree, nor disagree
- ☐ 4. I disagree
- ☐ 5. I strongly disagree

The following questions deal with preferences about changes in your job:

I 39 If I could do as I pleased, I would change the kind of work I do every few months.

- ☐ 5. I strongly agree
- ☐ 4. I agree a little
- ☐ 3. I neither agree, nor disagree
- ☐ 2. I disagree a little
- ☐ 1. I strongly disagree

I 40 One can never feel at ease on a job where the ways of doing things are always being changed.

- ☐ 1. I strongly agree
- ☐ 2. I agree a little
- ☐ 3. I neither agree, nor disagree
- ☐ 4. I disagree a little
- ☐ 5. I strongly disagree

I 41 The trouble with most jobs is that you just get used to doing things in one way and then they want you to do them differently.

- ☐ 1. I strongly agree
- ☐ 2. I agree a little
- ☐ 3. I neither agree, nor disagree
- ☐ 4. I disagree a little
- ☐ 5. I strongly disagree

I 42 I would prefer to stay with a job I know I can handle than to change to one where most things would be new to me.

- ☐ 1. I strongly agree
- ☐ 2. I agree a little
- ☐ 3. I neither agree, nor disagree
- ☐ 4. I disagree a little
- ☐ 5. I strongly disagree

I 43 The trouble with many people is that when they find a job they can do well they don't stick with it.

- ☐ 1. I strongly agree
- ☐ 2. I agree a little
- ☐ 3. I neither agree, nor disagree
- ☐ 4. I disagree a little
- ☐ 5. I strongly disagree

I 44 I like a job where I know that I will be doing my work about the same way from one week to the next.

- ☐ 1. I strongly agree
- ☐ 2. I agree a little
- ☐ 3. I neither agree, nor disagree
- ☐ 4. I disagree a little
- ☐ 5. I strongly disagree

I 45 When I get used to doing things in one way it is disturbing to have to change to a new method.

- ☐ 1. I strongly agree
- ☐ 2. I agree a little
- ☐ 3. I neither agree, nor disagree
- ☐ 4. I disagree a little
- ☐ 5. I strongly disagree

I 46 It would take a sizable raise in pay to get me to accept a different job here.

- ☐ 1. I strongly agree
- ☐ 2. I agree a little
- ☐ 3. I neither agree, nor disagree
- ☐ 4. I disagree a little
- ☐ 5. I strongly disagree

I 47 There are many unnecessary tasks performed in this company.

- ☐ 1. I strongly agree
- ☐ 2. I agree
- ☐ 3. I neither agree, nor disagree
- ☐ 4. I disagree
- ☐ 5. I strongly disagree

I 48 This company is slow in adopting more efficient methods of work.

- ☐ 1. I strongly agree
- ☐ 2. I agree
- ☐ 3. I neither agree, nor disagree
- ☐ 4. I disagree
- ☐ 5. I strongly disagree

1. The first part of the document is a list of names and addresses of the members of the committee.

2. The second part of the document is a list of names and addresses of the members of the committee.

3. The third part of the document is a list of names and addresses of the members of the committee.

4. The fourth part of the document is a list of names and addresses of the members of the committee.

5. The fifth part of the document is a list of names and addresses of the members of the committee.

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13. The thirteenth part of the document is a list of names and addresses of the members of the committee.

14. The fourteenth part of the document is a list of names and addresses of the members of the committee.

I 49 It is hard to gain acceptance of proposals for changes that would lead to increased efficiency.

- ☐ 1. I strongly agree
- ☐ 2. I agree
- ☐ 3. I neither agree, nor disagree
- ☐ 4. I disagree
- ☐ 5. I strongly disagree

I 50 Many persons in this company are so used to doing things in the present way that they cannot see the advantages of new methods of work.

- ☐ 1. I strongly agree
- ☐ 2. I agree
- ☐ 3. I neither agree, nor disagree
- ☐ 4. I disagree
- ☐ 5. I strongly disagree

I 51 Personal interests are too often allowed to stand in the way of improved efficiency in this company.

- ☐ 1. I strongly agree
- ☐ 2. I agree
- ☐ 3. I neither agree, nor disagree
- ☐ 4. I disagree
- ☐ 5. I strongly disagree

The following questions are concerned with the contacts you have with other people in your work, and with how you feel about the information you receive regarding changes in your job.

I 52 During a regular workday I generally exchange information connected with my work with the following number of people:

- ☐ 1. None
- ☐ 2. 1 - 2
- ☐ 3. 3 - 5
- ☐ 4. 6 - 10
- ☐ 5. More than 10

I 53 My job requires me to give information to my supervisor:

- ☐ 1. Very frequently
- ☐ 2. Often
- ☐ 3. Sometimes
- ☐ 4. Seldom
- ☐ 5. Very infrequently

I 54 How satisfied are you with the number of opportunities you have to discuss things about your job with your supervisor?

- ☐ 1. Completely satisfied
- ☐ 2. Very satisfied
- ☐ 3. Quite satisfied
- ☐ 4. Somewhat satisfied
- ☐ 5. Not satisfied

1

7.

I 55 How satisfied are you with the number of opportunities you have to talk with the people you supervise?

- ☐ 1. Completely satisfied
- ☐ 2. Very satisfied
- ☐ 3. Quite satisfied
- ☐ 4. Somewhat satisfied
- ☐ 5. Not satisfied

I 56 How satisfied are you with the information you receive concerning changes in the company and in your job?

- ☐ 1. Completely satisfied
- ☐ 2. Very satisfied
- ☐ 3. Quite satisfied
- ☐ 4. Somewhat satisfied
- ☐ 5. Not satisfied

In the right-hand column next to each item place a check mark under the statement which best describes your satisfaction with information received from the company.

ASPECTS OF INFORMATION	Satisfaction				
	Completely satisfied	Very satisfied	Quite satisfied	Somewhat satisfied	Not satisfied
I 57 Amount of information.....	☐	☐	☐	☐	☐
I 58 Accuracy of information.....	☐	☐	☐	☐	☐
I 59 Understandability of information.....	☐	☐	☐	☐	☐
I 60 Getting information soon enough.....	☐	☐	☐	☐	☐

0.3. The first section of the report is devoted to the study of the properties of the function $f(x)$ defined on the interval $[0, 1]$ by the formula

$$f(x) = \begin{cases} x^2 \sin \frac{1}{x} & \text{if } x \neq 0 \\ 0 & \text{if } x = 0 \end{cases}$$

It is shown that the function $f(x)$ is continuous on the interval $[0, 1]$ and that it has a unique maximum at $x = 1$.

$$f'(x) = \begin{cases} 2x \sin \frac{1}{x} - \cos \frac{1}{x} & \text{if } x \neq 0 \\ 0 & \text{if } x = 0 \end{cases}$$

It is also shown that the function $f(x)$ is differentiable at $x = 0$ and that its derivative is equal to 0.

The second section of the report is devoted to the study of the properties of the function $g(x)$ defined on the interval $[0, 1]$ by the formula

$$g(x) = \begin{cases} x^2 \sin \frac{1}{x} & \text{if } x \neq 0 \\ 0 & \text{if } x = 0 \end{cases}$$

It is shown that the function $g(x)$ is continuous on the interval $[0, 1]$ and that it has a unique maximum at $x = 1$.

$$g'(x) = \begin{cases} 2x \sin \frac{1}{x} - \cos \frac{1}{x} & \text{if } x \neq 0 \\ 0 & \text{if } x = 0 \end{cases}$$

It is also shown that the function $g(x)$ is differentiable at $x = 0$ and that its derivative is equal to 0.

The third section of the report is devoted to the study of the properties of the function $h(x)$ defined on the interval $[0, 1]$ by the formula

$$h(x) = \begin{cases} x^2 \sin \frac{1}{x} & \text{if } x \neq 0 \\ 0 & \text{if } x = 0 \end{cases}$$

It is shown that the function $h(x)$ is continuous on the interval $[0, 1]$ and that it has a unique maximum at $x = 1$.

$$h'(x) = \begin{cases} 2x \sin \frac{1}{x} - \cos \frac{1}{x} & \text{if } x \neq 0 \\ 0 & \text{if } x = 0 \end{cases}$$

It is also shown that the function $h(x)$ is differentiable at $x = 0$ and that its derivative is equal to 0.

On the next page you will find a list of statements about aspects of your job. You are asked to answer the questions about each aspect of your job. "Has this aspect of your job changed in the past six months?" (Question "A"), and "How do you feel about the change (or lack of change) in this aspect of your job?" (Question "B")

1. If you had the same job title here at [REDACTED] six months ago, compare the way your job is now with the way it was six months ago on each of the job aspects.

2. If you had a different job here at [REDACTED] six months ago, compare your present job with the job you had six months ago on each of the job aspects.

3. If you have not been with [REDACTED] for at least six months, indicate any changes which have occurred in the aspects of your job since you came to [REDACTED].

Example: Suppose the statement had to do with hours of work. If you are working more hours now ("A") and don't like it ("B"), you would check the spaces like this:

QUESTION "A"

How has this aspect of your job changed in the past six months?

much more now	more now	no change	less now	much less now
---------------------	-------------	--------------	-------------	---------------------

QUESTION "B"

How do you feel about this change (or lack of change) in your job?

like a lot	like	don't care	dis- like	dis- like a lot
------------------	------	---------------	--------------	-----------------------

The hours
I work on
this job...

____ ☒ ____

____ ☐ ____ ☒ ____

1. The first part of the document is a letter from the President of the United States to the Congress, dated January 3, 1862. It is a very long letter, and it contains a great deal of information about the state of the country at that time. The President talks about the war with Mexico, and about the relations between the United States and Great Britain. He also talks about the economy, and about the progress of the country. The letter is written in a very formal style, and it is very well organized. It is a very important document, and it is one of the most important documents in the history of the United States.

2. The second part of the document is a letter from the Secretary of the Treasury to the Congress, dated January 3, 1862. It is a very long letter, and it contains a great deal of information about the state of the country at that time. The Secretary talks about the war with Mexico, and about the relations between the United States and Great Britain. He also talks about the economy, and about the progress of the country. The letter is written in a very formal style, and it is very well organized. It is a very important document, and it is one of the most important documents in the history of the United States.

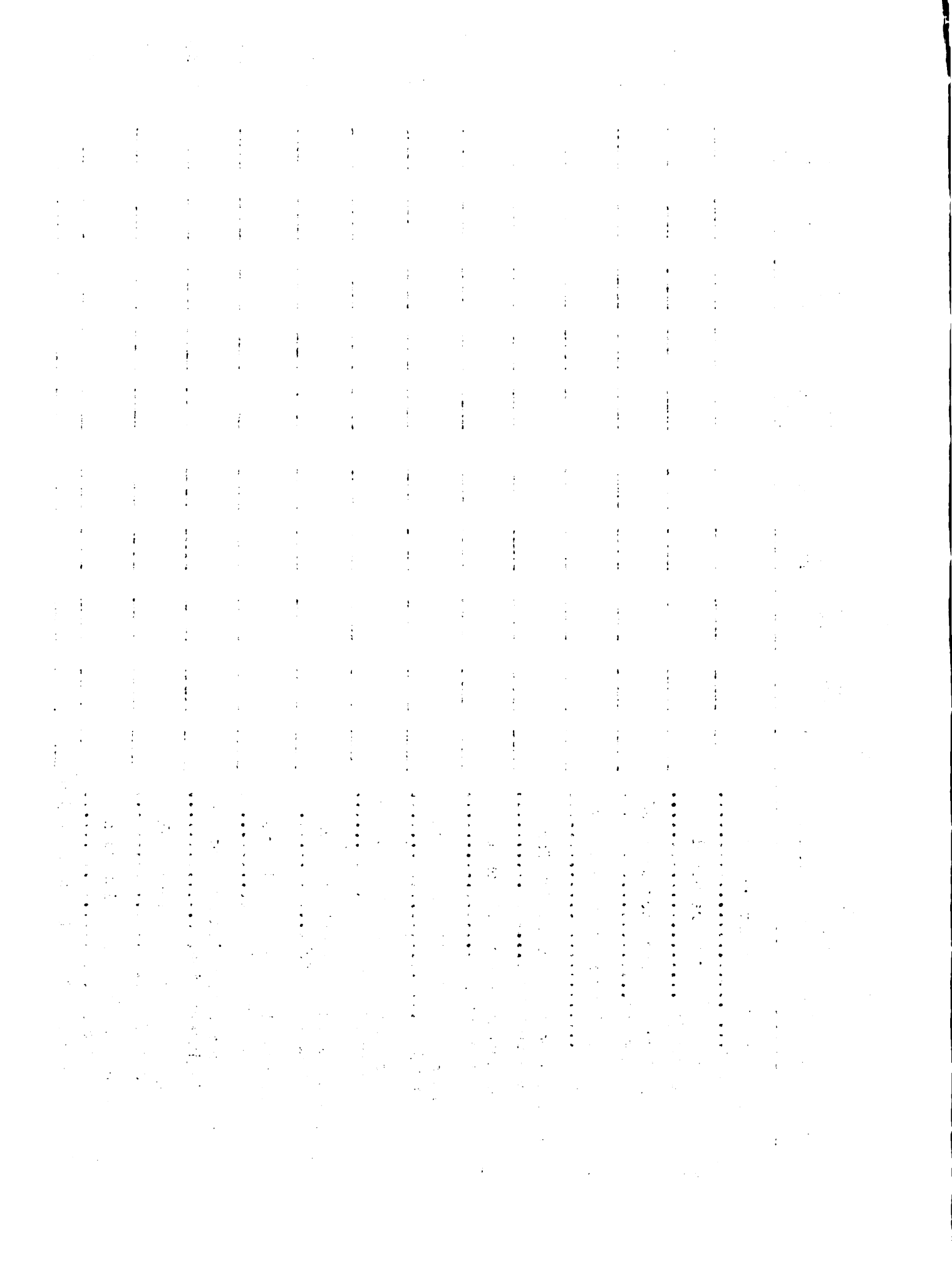
3. The third part of the document is a letter from the Secretary of the Interior to the Congress, dated January 3, 1862. It is a very long letter, and it contains a great deal of information about the state of the country at that time. The Secretary talks about the war with Mexico, and about the relations between the United States and Great Britain. He also talks about the economy, and about the progress of the country. The letter is written in a very formal style, and it is very well organized. It is a very important document, and it is one of the most important documents in the history of the United States.

4. The fourth part of the document is a letter from the Secretary of the War to the Congress, dated January 3, 1862. It is a very long letter, and it contains a great deal of information about the state of the country at that time. The Secretary talks about the war with Mexico, and about the relations between the United States and Great Britain. He also talks about the economy, and about the progress of the country. The letter is written in a very formal style, and it is very well organized. It is a very important document, and it is one of the most important documents in the history of the United States.

5. The fifth part of the document is a letter from the Secretary of the Navy to the Congress, dated January 3, 1862. It is a very long letter, and it contains a great deal of information about the state of the country at that time. The Secretary talks about the war with Mexico, and about the relations between the United States and Great Britain. He also talks about the economy, and about the progress of the country. The letter is written in a very formal style, and it is very well organized. It is a very important document, and it is one of the most important documents in the history of the United States.

How do you feel about this change (or lack of change) in your job?

[illegible]



II 37 Considering everything, would you say you are now more satisfied or less satisfied with your job than you were six months ago?

- ☐ 1. Much more satisfied now
- ☐ 2. More satisfied now
- ☐ 3. No more, no less satisfied now
- ☐ 4. Less satisfied now
- ☐ 5. Much less satisfied now

As you may know, the company installed an IBM 650 computer in December last year. The following questions deal with the role of this computer as you see it and with your feelings about it.

II 38 What is your general feeling about the fact that the company has installed a computer?

- ☐ 1. I like it very much
- ☐ 2. I like it
- ☐ 3. It makes no difference to me
- ☐ 4. I dislike it
- ☐ 5. I dislike it very much
- ☐ 9. I have never given it a thought

II 39 What was the general effect of the changeover to the new computer?

- ☐ 4. It was very disrupting
- ☐ 3. It was quite disrupting
- ☐ 2. It was slightly disrupting
- ☐ 1. It was not disrupting at all
- ☐ 9. I have no idea

II 40 How long would you say it took you to get used to the change?

- ☐ 1. No more than one week
- ☐ 2. 1 week to 1 month
- ☐ 3. 1 month to 3 months
- ☐ 4. More than 3 months
- ☐ 5. Not really used to it yet
- ☐ 9. I was not affected at all

II 41 Considering everything, do you think the computer has been a good thing or a bad thing for the employees in [REDACTED] ?

- ☐ 1. A very good thing
- ☐ 2. A good thing
- ☐ 3. Neither a good thing, nor a bad thing
- ☐ 4. A bad thing
- ☐ 5. A very bad thing
- ☐ 9. I have no idea

II 42 In your opinion, would it be a good idea to use the computer more widely or less widely in this company than is now the case?

- ☐ 1. Much more widely than now
- ☐ 2. More widely than now
- ☐ 3. About the same as now
- ☐ 4. Less widely than now
- ☐ 5. Much less widely than now
- ☐ 8. I don't care
- ☐ 9. I don't know

II 43 What has happened to your job since last November?

- ☐ 1. I have been promoted
- ☐ 2. I have been transferred to a different job
- ☐ 3. I have kept my job, but the work has been greatly changed
- ☐ 4. I have kept my job, but the work has been noticeably changed
- ☐ 5. I have kept my job, and the work has been changed only slightly
- ☐ 6. I have kept my job, and the work has not changed
- ☐ 9. I was not employed here last November

II 44 How do you feel about the change (or lack of change) since last November?

- ☐ 1. I like it very much
- ☐ 2. I like it
- ☐ 3. It makes no difference to me
- ☐ 4. I dislike it
- ☐ 5. I dislike it very much
- ☐ 9. I was not employed here last November

II 45 Did the computer play any part in the change in your job since last November?

- ☐ 1. Yes, it was the main factor in the change
- ☐ 2. Yes, but it was a minor factor in the change
- ☐ 3. No, it was not a factor in the change
- ☐ 4. No, for there was no change
- ☐ 8. I was not employed here last November
- ☐ 9. I have no idea

II 46 Do you think that the computer will influence your job in the next year or two?

- ☐ 1. It is very likely
- ☐ 2. It is quite likely
- ☐ 3. It is possible, but not very likely
- ☐ 4. It is not very likely
- ☐ 5. It is not at all likely
- ☐ 9. I have no idea

II 47 How do you feel about this?

- ☐ 1. I like it very much
- ☐ 2. I like it
- ☐ 3. It makes no difference to me
- ☐ 4. I dislike it
- ☐ 5. I dislike it very much

[illegible]

Now we would like to know what you think will happen as a result of the computer. Below are several questions. For each question mark your answer in one of the columns "Yes", "Possibly", and "No", depending on your opinion.

		Yes	Possibly	No
II 62	Will the computer change the work methods in all parts of the company?			
II 63	Will the company be able to issue policies more quickly thanks to the computer?			
II 64	Will the computer soon be used for deciding which applications the company should accept and which it should reject?			
II 65	Will the computer endanger anybody's employment at [REDACTED]?			
II 66	Will a lot of people be able to use more of their skills as a result of the installation of the computer?			
II 67	Will the computer actually help increase employment at [REDACTED]?			

III 9 Of the information distributed about the IBM "650" computer I think I have received:

- ☐ 1. All of it
- ☐ 2. Most of it
- ☐ 3. Some of it
- ☐ 4. Only a little of it
- ☐ 5. None of it

III 10 Of the information I have received about the IBM "650" computer prior to its installation I felt it was necessary to pass along:

- ☐ 1. All of it
- ☐ 2. Most of it
- ☐ 3. Some parts of it
- ☐ 4. Only a little of it
- ☐ 5. None of it

III 11 I have discussed the IBM "650" computer with others:

- ☐ 1. Very often
- ☐ 2. Often
- ☐ 3. Sometimes
- ☐ 4. Not often
- ☐ 5. Never

III 12 To what extent has the information you received from the company about the IBM "650" computer agreed with what actually took place?

- ☐ 1. It agreed very well
- ☐ 2. It agreed fairly well
- ☐ 3. It agreed in some ways and not in others
- ☐ 4. It disagreed somewhat
- ☐ 5. It disagreed very much

III 13 On the job that you have now, how much of your present work involves the use of office machines?

- ☐ 1. Almost all of it
- ☐ 2. A large part of it
- ☐ 3. Some of it
- ☐ 4. A small part of it
- ☐ 5. Almost none of it
- ☐ 9. Don't know

III 14 On the job that would be ideal for you, how much of your work would involve the use of office machines?

- ☐ 1. Almost all of it
- ☐ 2. A large part of it
- ☐ 3. Some of it
- ☐ 4. A small part of it
- ☐ 5. Almost none of it
- ☐ 9. Don't know

III 15 Do things here at work ever make you feel "jumpy" or nervous?

- ☐ 1. Never
- ☐ 2. Very seldom
- ☐ 3. Seldom
- ☐ 4. Sometimes
- ☐ 5. Quite often
- ☐ 6. Very often

III 16 The job that you would consider ideal for you would be one where the way you do your work:

- ☐ 1. Is always the same
- ☐ 2. Changes very little
- ☐ 3. Changes somewhat
- ☐ 4. Changes quite a bit
- ☐ 5. Changes a great deal

III 17 What are the things you like most about the way changes are handled in this company? _____

Figure 1. The effect of the concentration of the *Agrobacterium* suspension on the transformation efficiency of *Agrobacterium* strains. The *Agrobacterium* strains were incubated in the presence of 100 mg/ml of gentamicin and 100 mg/ml of rifampicin. The *Agrobacterium* strains were incubated in the presence of 100 mg/ml of gentamicin and 100 mg/ml of rifampicin. The *Agrobacterium* strains were incubated in the presence of 100 mg/ml of gentamicin and 100 mg/ml of rifampicin.

[illegible]

10. *How do you think the current situation in the world will change in the next 10 years?*

[illegible]

[illegible]

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2. Once the problem is identified, the next step is to develop a plan. This involves setting goals and determining the steps that need to be taken to achieve those goals.

3. The third step is to implement the plan. This involves putting the plan into action and monitoring progress.

4. The final step is to evaluate the results. This involves assessing the effectiveness of the plan and making adjustments as needed.

Figure 1. A schematic diagram of the experimental design. The subjects were divided into two groups: the control group and the experimental group. The control group received a standard training program, while the experimental group received a modified training program. The subjects were then tested on a series of tasks, and their performance was compared between the two groups.

[illegible][illegible]

III 18

What are the things you like least about the way changes are handled in this company? _____

III 19

The main reason I work at my present job is to make money.

- _____ 1. I strongly agree
- _____ 2. I agree
- _____ 3. I neither agree, nor disagree
- _____ 4. I disagree
- _____ 5. I strongly disagree

III 20

If I received an inheritance so large that I did not have to work, I would still work at my present job.

- _____ 5. I strongly agree
- _____ 4. I agree
- _____ 3. I neither agree, nor disagree
- _____ 2. I disagree
- _____ 1. I strongly disagree

III 21

The things I do off the job are generally more interesting to me than the things I do while at work.

- _____ 1. I strongly agree
- _____ 2. I agree
- _____ 3. I neither agree, nor disagree
- _____ 4. I disagree
- _____ 5. I strongly disagree

III 22

It is more important to me that I do well at my work here than at anything else I do.

- _____ 5. I strongly agree
- _____ 4. I agree
- _____ 3. I neither agree, nor disagree
- _____ 2. I disagree
- _____ 1. I strongly disagree

III 23

I care more about what the people I work with think of me than I do about what most others think.

- _____ 5. I strongly agree
- _____ 4. I agree
- _____ 3. I neither agree, nor disagree
- _____ 2. I disagree
- _____ 1. I strongly disagree

The first part of the paper discusses the importance of understanding the underlying mechanisms of the observed phenomena. This is followed by a detailed analysis of the data, which shows a clear trend towards higher values in the second half of the study period. The results are then compared with previous research, highlighting the similarities and differences. Finally, the paper concludes with a summary of the findings and some suggestions for future research.

The second part of the paper focuses on the methodological aspects of the study. It describes the data collection process, the statistical methods used, and the limitations of the study. The authors emphasize the need for transparency in reporting the results and the importance of replicability. They also discuss the potential biases that may have influenced the findings and how they were minimized.

The third part of the paper presents the results of the study in detail. It includes a series of tables and figures that illustrate the data trends and the statistical significance of the findings. The authors provide a thorough interpretation of the results, explaining the implications for the field of study. They also discuss the practical applications of the findings and the potential for further research in this area.

The fourth part of the paper discusses the broader context of the study and its contribution to the field. It compares the findings with other studies and highlights the unique aspects of the research. The authors also discuss the limitations of the study and the need for further research to address these limitations. Finally, they provide a conclusion that summarizes the main findings and the overall contribution of the study.

The paper concludes with a final summary of the findings and a list of references. The authors thank the funding agencies and the participants who made the study possible. They also provide contact information for those interested in further research or collaboration.

III 24 I cannot really be happy unless I do very well at my job.

- ☐ 5. I strongly agree
- ☐ 4. I agree
- ☐ 3. I neither agree, nor disagree
- ☐ 2. I disagree
- ☐ 1. I strongly disagree

III 25 The general field of work I am in now is the kind I would prefer to stay in until I retire.

- ☐ 5. I strongly agree
- ☐ 4. I agree
- ☐ 3. I neither agree, nor disagree
- ☐ 2. I disagree
- ☐ 1. I strongly disagree

III 26 I would feel like a loafer if I did not have a job.

- ☐ 5. I strongly agree
- ☐ 4. I agree
- ☐ 3. I neither agree, nor disagree
- ☐ 2. I disagree
- ☐ 1. I strongly disagree

III 27 All things considered, how easy would it be for Citizens' to find someone else to do the job you are now doing?

- ☐ 1. Very difficult
- ☐ 2. Fairly difficult
- ☐ 3. A little bit difficult
- ☐ 4. Fairly easy
- ☐ 5. Very easy
- ☐ 9. Don't know

III 28 How many employees in the company think that your job is more desirable than their own jobs?

- ☐ 1. Almost all
- ☐ 2. Many
- ☐ 3. Some
- ☐ 4. Few
- ☐ 5. Almost none

III 29 How many supervisors in the company think that your job is more desirable than their own jobs?

- ☐ 1. Almost all
- ☐ 2. Many
- ☐ 3. Some
- ☐ 4. Few
- ☐ 5. Almost none

III 30 As far as you can tell, what do your supervisors think about your work performance here at [REDACTED] ?

- ☐ 1. They like it very much.
- ☐ 2. They like it.
- ☐ 3. They like most things about it, but there are some exceptions.
- ☐ 4. There are several things about my work performance that they don't like.
- ☐ 5. There are many things about my work performance that they don't like.
- ☐ 9. Don't know.

III 31 How easy would it be for you to get a job as good as the one you now have at some other company?

- ☐ 1. Very easy
- ☐ 2. Fairly easy
- ☐ 3. A little bit difficult
- ☐ 4. Fairly difficult
- ☐ 5. Very difficult
- ☐ 9. I don't know

III 32 How qualified do you feel you are to handle different jobs in this company?

- ☐ 1. Much more than most employees.
- ☐ 2. More than most employees.
- ☐ 3. About the same as most employees.
- ☐ 4. Less than most employees.
- ☐ 5. Much less than most employees.

III 33 Are you now taking any special training?

- ☐ 1. No, and I don't really plan to
- ☐ 2. No, and I don't know whether I will or not
- ☐ 3. No, but I plan to within 5 years
- ☐ 4. Yes, training to help me on the job I'm on now
- ☐ 5. Yes, training for a different job in this company
- ☐ 6. Yes, training for a job elsewhere
- ☐ 7. Yes, training to help me enter a profession or start my own business

III 34- When were you hired by [REDACTED]? Year _____ Month _____

35

What is your present job title? (example: key-punch operator)

III 36- When did you start on your present job? Year _____ Month _____

37

What is your section and department? _____

- III 38-40 What is your supervisor's name? _____
- III 41-42 How many people do you supervise directly here at work?
_____ people
- III 43 Within the past 6 months have you tried to transfer from your present job to another job or department within the company?
Yes _____ No _____
- III 44 Within the past 6 months have you registered with any employment agency or applied for a job with any other organization?
Yes _____ No _____
- III 45 Are you the only wage earner in your household? Yes _____ No _____
- III 46 Are you the main wage earner in your household? Yes _____ No _____
- III 47 Could your household live adequately if you were not working?
Yes _____ No _____
- III 48 Is your household living adequately now? Yes _____ No _____
- III 49-50 Date of birth: Month _____ Day _____ Year _____
- III 51 Sex: Male _____ Female _____
- III 52 Marital status: Single _____ Married _____ Other _____
- III 53 How many years of school have you completed? Circle highest grade completed.

						Some		Graduate
7	8	9	10	11	12	College	College	Work

Thank you for your cooperation. Now tear off the ballot at the bottom of the cover page of the questionnaire. Place the ballot in the "Ballot Box" and place the questionnaire in the box marked "Questionnaires".

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APPENDIX C

APPENDIX C

This appendix contains a brief description of statistics used in Chapter VIII and then shows tables illustrating results in the order discussed in Chapter VIII.

When groups were dichotomized, an attempt was made to do so at or near the median wherever possible. Otherwise the most sensible break was made (as between male and female, college versus high school education, etc.).

Tetrachoric r was computed using the Cosine-pi approximation formula:

$$r_{\text{tet}} = \cos \left(\frac{180^\circ \sqrt{bc}}{\sqrt{ad} + \sqrt{bc}} \right)$$

To test the significance of tetrachoric r , the following computation was made:

$$\frac{\sqrt{pp' qq'}}{yy' \sqrt{N}}$$

When r was 2.58 or more times larger than the result obtained in the above formula, r was considered significant at the 1% level. When r was 1.96 times larger, it was considered significant at the 5% level.

The following formula was used for computing the phi coefficient:

$$\text{Phi} = \frac{(ad - bc)}{\sqrt{(a + b)(a + c)(b + d)(c + d)}}$$

In order to test the significance of phi, Chi Square was used.

$$\text{Chi Square} = N(\text{Phi})^2$$

Significance levels were determined by entering a Chi Square table with one degree of freedom and checking the obtained Chi Square against the one required at the 1% and 5% levels of significance.

The following tables use Home Office Data (N=170).

TABLE 8
CORRELATION OF DOGMATISM WITH PRE CHANGE
ATTITUDE TOWARD CHANGE

Pre Change Attitude Toward Change	Dogmatism	
	High (N=85)	Low (N=85)
High (N=94)	37	57
Low (N=76)	48	28

$r_{tet} = -.37$ (significant at the 1% level)

TABLE 9
CORRELATION OF DOGMATISM WITH POST CHANGE
ATTITUDE TOWARD CHANGE

Post Change Attitude Toward Change	Dogmatism	
	High (N=85)	Low (N=85)
High (N=87)	30	57
Low (N=83)	55	28

$r_{tet} = -.47$ (significant at the 1% level)

TABLE 10

CORRELATION OF DOGMATISM WITH CHANGE IN JOB SATISFACTION
AFTER INTRODUCTION OF COMPUTER

Change in Job Satisfaction	Dogmatism	
	High (N=85)	Low (N=85)
More satisfied now (N=57)	31	26
No change or less satisfied now (N=113)	54	59

Tetrachoric $r = 0$ (not significant)

TABLE 11

CORRELATION OF DOGMATISM WITH EXTENT COMPUTER FELT
TO BE DISRUPTING

Extent Felt to be Disrupting	Dogmatism	
	High (N=85)	Low (N=85)
Not disrupting at all or have no idea (N=83)	33	50
Slightly, quite, or very disrupting (N=87)	52	35

Tetrachoric $r = -.31$ (significant at the 1% level)

TABLE 12

CORRELATION OF DOGMATISM WITH LENGTH OF TIME TAKEN
TO GET USED TO CHANGEOVER TO COMPUTER

Length of Time	Dogmatism	
	High (N=85)	Low (N=85)
Up to one month or not affected by computer (N=120)	53	67
More than one month up to not used to computer yet (N=50)	32	18
Tetrachoric $r = -.31$ (significant at the 1% level)		

TABLE 13

CORRELATION OF DOGMATISM WITH FEELING ABOUT CHANGE
WHICH DID OR DID NOT TAKE PLACE ON JOB

Feeling about Change	Dogmatism	
	High (N=85)	Low (N=85)
Change and liked, No change and disliked (N=137)	69	68
Change and disliked, No change and liked (N=33)	16	17

Tetrachoric $r = 0$ (not significant)

TABLE 14

CORRELATION OF DOGMATISM WITH FEELING
ABOUT INSTALLATION OF COMPUTER

Feeling about Computer	Dogmatism	
	High (N=85)	Low (N=85)
Liked very much (N=21)	7	14
Liked less or Disliked (N=149)	78	71

Tetrachoric $r = -.30$ (significant at the 1% level)

The following tables were computed by using relationships found (if any) between dogmatism and attitude and reaction to change in the Home Office to predict scores on these variables for each individual in the Branch Office and then showing the relationship between predicted and observed scores for Branch Office employees (N=74).

TABLE 15

CORRELATION BETWEEN PREDICTED AND OBSERVED RELATIONSHIPS
FOR PRE CHANGE ATTITUDE TOWARD CHANGE AS
PREDICTED BY DOGMATISM

Predicted	Observed	
	Pre Change Attitude High (N=39)	Toward Change Low (N=35)
Pre Change Attitude Toward Change		
High (N=37)	27	10
Low (N=37)	12	25

$\Phi = +.40$

Chi Square = 11.84 (significant at the 1% level)

TABLE 16

CORRELATION BETWEEN PREDICTED AND OBSERVED RELATIONSHIPS
FOR POST CHANGE ATTITUDE TOWARD CHANGE AS
PREDICTED BY DOGMATISM

Predicted	Observed	
	Post Change Attitude Toward Change High (N=37)	Low (N=37)
Post Change Attitude Toward Change		
High (N=37)	25	12
Low (N=37)	12	25

$\Phi = +.35$

Chi Square = 8.32 (significant at the 1% level)

TABLE 17

CORRELATION BETWEEN PREDICTED AND OBSERVED RELATIONSHIPS
FOR EXTENT COMPUTER FELT TO BE DISRUPTING AS
PREDICTED BY DOGMATISM

Predicted	Observed	
	Extent Felt to be Disrupting	
	Not disrupting at all, or have no idea (N=48)	Slightly, quite, or very disrupting (N=26)
Extent Felt to be Disrupting		
Not disrupting at all, or have no idea (N=37)	25	12
Slightly, quite, or very disrupting (N=37)	23	14

$\Phi = +.06$

Chi Square = .27 (not significant)

TABLE 18

CORRELATION BETWEEN PREDICTED AND OBSERVED RELATIONSHIPS
FOR LENGTH OF TIME TAKEN TO GET USED TO CHANGEOVER
TO COMPUTER AS PREDICTED BY DOGMATISM

Predicted	Observed	
	Length of Time	
	Up to one month or not affected by computer (N=65)	More than one month up to not used to computer yet (N=9)
Length of Time		
Up to one month or not affected by computer (N=37)	33	4
More than one month up to not used to computer yet (N=37)	32	5

Phi = +.04

Chi Square = .12 (not significant)

TABLE 19

CORRELATION BETWEEN PREDICTED AND OBSERVED RELATIONSHIPS
FOR FEELING ABOUT INSTALLATION OF COMPUTER AS
PREDICTED BY DOGMATISM

Predicted	Observed	
	Feeling about Computer	
	Liked very much (N=18)	Liked less or Disliked (N=56)
Feeling about Computer		
Liked very much (N=37)	13	24
Liked less or Disliked (N=37)	5	32

Phi = +.25

Chi Square = 4.62 (significant at the 5% level)

The following tables use data from the Home Office (N=170).

TABLE 20
CORRELATION OF ANXIETY WITH PRE CHANGE
ATTITUDE TOWARD CHANGE

Pre Change Attitude Toward Change	Anxiety	
	High (N=85)	Low (N=85)
High (N=94)	35	59
Low (N=76)	50	26

Tetrachoric $r = -.27$ (significant at the 2% level)

TABLE 21
CORRELATION OF ANXIETY WITH POST CHANGE
ATTITUDE TOWARD CHANGE

Post Change Attitude Toward Change	Anxiety	
	High (N=85)	Low (N=85)
High (N=87)	32	55
Low (N=83)	53	30

Tetrachoric $r = -.41$ (significant at the 1% level)

TABLE 22

**CORRELATION OF ANXIETY WITH CHANGE IN JOB SATISFACTION
AFTER INTRODUCTION OF THE COMPUTER**

Change in Job Satisfaction	Anxiety	
	High (N=85)	Low (N=85)
More satisfied now (N=57)	9	48
No change or less satisfied now (N=113)	76	37

Tetrachoric $r = -.75$ (significant at the 1% level)

TABLE 23

**CORRELATION OF ANXIETY WITH EXTENT COMPUTER FELT
TO BE DISRUPTING**

Extent Felt to be Disrupting	Anxiety	
	High (N=85)	Low (N=85)
Not disrupting at all, or have no idea (N=83)	34	49
Slightly, quite, or very disrupting (N=87)	51	36

Tetrachoric $r = -.27$ (significant at the 2% level)

TABLE 24

CORRELATION OF ANXIETY WITH LENGTH OF TIME TAKEN
TO GET USED TO CHANGEOVER TO COMPUTER

Length of Time	Anxiety	
	High (N=85)	Low (N=85)
Up to one month or not affected by computer (N=120)	50	70
More than one month up to not used to computer yet (N=50)	35	15
Tetrachoric $r = -.44$ (significant at the 1% level)		

TABLE 25

CORRELATION OF ANXIETY WITH FEELING ABOUT CHANGE
WHICH DID OR DID NOT TAKE PLACE ON THE JOB

Feeling about Change	Anxiety	
	High (N=85)	Low (N=85)
Change and liked, No change and disliked (N=137)	68	69
Change and disliked, No change and liked (N=33)	17	16
Tetrachoric $r = -.03$ (not significant)		

TABLE 26

CORRELATION OF ANXIETY WITH FEELING
ABOUT INSTALLATION OF COMPUTER

Feeling about Computer	Anxiety	
	High (N=85)	Low (N=85)
Liked very much (N=21)	6	15
Liked less or Disliked (N=149)	79	70

Tetrachoric $r = -.40$ (significant at the 1% level)

The following tables were computed by using relationships found (if any) between anxiety and attitude and reaction to change in the Home Office to predict scores on these variables for each individual in the Branch Office and then showing the relationship between predicted and observed scores for Branch Office employees (N=74).

TABLE 27

CORRELATION BETWEEN PREDICTED AND OBSERVED RELATIONSHIPS
FOR PRE CHANGE ATTITUDE TOWARD CHANGE AS
PREDICTED BY ANXIETY

Predicted	Observed	
	Pre Change Attitude Toward Change High (N=39)	Low (N=35)
Pre Change Attitude Toward Change		
High (N=37)	23	14
Low (N=37)	16	21

Phi = +.20
Chi Square = 2.96 (significant at the 10% level)

TABLE 28

CORRELATION BETWEEN PREDICTED AND OBSERVED RELATIONSHIPS
FOR POST CHANGE ATTITUDE TOWARD CHANGE AS
PREDICTED BY ANXIETY

Predicted	Observed	
	Post Change Attitude Toward Change High (N=37)	Low (N=37)
Post Change Attitude Toward Change		
High (N=37)	23	14
Low (N=37)	14	23

Phi = +.24
Chi Square = 4.26 (significant at the 5% level)

TABLE 29

CORRELATION BETWEEN PREDICTED AND OBSERVED RELATIONSHIPS
FOR CHANGE IN JOB SATISFACTION AFTER INTRODUCTION
OF THE COMPUTER AS PREDICTED BY ANXIETY

Predicted	Observed	
	Change in Job Satisfaction More satisfied now (N=36)	No change or less satisfied now (N=38)
Change in Job Satisfaction		
More satisfied now (N=37)	20	17
No change or less satisfied now (N=37)	16	21

Phi = +.11
Chi Square = .90 (not significant)

TABLE 30

CORRELATION BETWEEN PREDICTED AND OBSERVED RELATIONSHIPS
FOR EXTENT COMPUTER FELT TO BE DISRUPTING AS
PREDICTED BY ANXIETY

Predicted	Observed	
	Extent Felt to be Disrupting Not disrupting at all, or have no idea (N=48)	Slightly, quite, or very disrupting (N=26)
Extent Felt to be Disrupting		
Not disrupting at all, or have no idea (N=37)	26	11
Slightly, quite, or very disrupting (N=37)	22	15

Phi = +.11

Chi Square = .90 (not significant)

TABLE 31

CORRELATION BETWEEN PREDICTED AND OBSERVED RELATIONSHIPS
FOR LENGTH OF TIME TAKEN TO GET USED TO COMPUTER AS
PREDICTED BY ANXIETY

Predicted	Observed	
	Length of Time	
	Up to one month or not affected by computer (N=65)	More than one month up to not used to computer yet (N=9)
Length of Time		
Up to one month or not affected by computer (N=37)	34	3
More than one month up to not used to computer yet (N=37)	31	6

Phi = +.12

Chi Square = 1.06 (not significant)

TABLE 32

CORRELATION BETWEEN PREDICTED AND OBSERVED RELATIONSHIPS
FOR FEELING ABOUT INSTALLATION OF COMPUTER AS
PREDICTED BY ANXIETY

Predicted	Observed	
	Feeling about Computer	
	Liked very much (N=18)	Liked less or Disliked (N=56)
Feeling about Computer		
Liked very much (N=37)	11	26
Liked less or Disliked (N=37)	7	30

$\Phi = +.12$

Chi Square = 1.06 (not significant)

TABLE 33

CORRELATION OF ANXIETY WITH DOGMATISM
IN THE HOME OFFICE (N=170)

Dogmatism	Anxiety	
	High (N=85)	Low (N=85)
High (N=86)	57	29
Low (N=84)	28	56

Tetrachoric $r = +.49$ (significant at the 1% level)

TABLE 34

CORRELATION BETWEEN PREDICTED AND OBSERVED RELATIONSHIPS
FOR ANXIETY AND DOGMATISM IN THE BRANCH OFFICE (N=74)
AS PREDICTED BY DOGMATISM

Predicted	Observed	
	Anxiety	
	High (N=37)	Low (N=37)
Anxiety		
High (N=37)	21	16
Low (N=37)	16	21

$\Phi = +.13$

Chi Square = 1.48 (not significant)

The following tables use data from the Home Office (N=170).

TABLE 35

CORRELATION OF DOGMATISM AND ANXIETY COMBINED
WITH PRE CHANGE ATTITUDE TOWARD CHANGE

Pre Change Attitude Toward Change	Dogmatism and Anxiety	
	High (N=85)	Low (N=85)
High (N=94)	40	54
Low (N=76)	45	31

Tetrachoric $r = -.27$ (significant at the 5% level)

TABLE 36

CORRELATION OF DOGMATISM AND ANXIETY COMBINED
WITH POST CHANGE ATTITUDE TOWARD CHANGE

Post Change Attitude Toward Change	Dogmatism and Anxiety	
	High (N=85)	Low (N=85)
High (N=87)	33	54
Low (N=83)	52	31

Tetrachoric $r = -.38$ (significant at the 1% level)

TABLE 37

CORRELATION OF DOGMATISM AND ANXIETY COMBINED
WITH CHANGE IN JOB SATISFACTION

Change in Job Satisfaction	Dogmatism and Anxiety	
	High (N=85)	Low (N=85)
More satisfied now (N=57)	32	25
No change or less satisfied now (N=113)	53	60

Tetrachoric $r = +.15$ (not significant)

TABLE 38

CORRELATION OF DOGMATISM AND ANXIETY COMBINED
WITH EXTENT COMPUTER FELT TO BE DISRUPTING

Extent Felt to be Disrupting	Dogmatism and Anxiety	
	High (N=85)	Low (N=85)
Not disrupting at all or have no idea (N=83)	34	49
Slightly, quite, or very disrupting (N=87)	51	36
Tetrachoric $r = -.27$ (significant at the 2% level)		

TABLE 39

CORRELATION OF DOGMATISM AND ANXIETY COMBINED
WITH LENGTH OF TIME TAKEN
TO GET USED TO COMPUTER

Length of Time	Dogmatism and Anxiety	
	High (N=85)	Low (N=85)
Up to one month or not affected by computer (N=120)	52	68
More than one month up to not used to computer yet (N=50)	33	17
Tetrachoric $r = -.35$ (significant at the 1% level)		

TABLE 40

CORRELATION OF DOGMATISM AND ANXIETY COMBINED
WITH FEELING ABOUT CHANGES WHICH HAD
OR HAD NOT TAKEN PLACE

Feeling about Change	Dogmatism and Anxiety	
	High (N=85)	Low (N=85)
Change and liked, No change and disliked (N=137)	70	67
Change and disliked, No change and liked (N=33)	15	18

Tetrachoric $r = +.09$ (not significant)

TABLE 41

CORRELATION OF DOGMATISM AND ANXIETY COMBINED
WITH FEELING ABOUT INSTALLATION OF COMPUTER

Feeling about Computer	Dogmatism and Anxiety	
	High (N=85)	Low (N=85)
Liked very much (N=21)	9	12
Liked less or Disliked (N=149)	76	73

Tetrachoric $r = -.31$ (significant at the 1% level)

The following tables were computed by using relationships found (if any) between dogmatism and anxiety combined and attitude and reaction to change in the Home Office to predict scores on these variables for each individual in the Branch Office and then showing the relationship between predicted and observed scores for Branch Office employees (N=74).

TABLE 42

CORRELATION BETWEEN PREDICTED AND OBSERVED RELATIONSHIPS
FOR PRE CHANGE ATTITUDE TOWARD CHANGE AS PREDICTED
BY DOGMATISM AND ANXIETY IN COMBINATION

Predicted	Observed	
	Pre Change Attitude Toward Change	
	High (N=39)	Low (N=35)
Pre Change Attitude Toward Change		
High (N=37)	26	11
Low (N=37)	13	24

$\Phi = +.35$

Chi Square = 9.06 (significant at the 1% level)

TABLE 43

CORRELATION BETWEEN PREDICTED AND OBSERVED RELATIONSHIPS
FOR POST CHANGE ATTITUDE TOWARD CHANGE AS PREDICTED
BY DOGMATISM AND ANXIETY IN COMBINATION

Predicted	Observed	
	Post Change Attitude Toward Change	
	High (N=37)	Low (N=37)
Post Change Attitude Toward Change		
High (N=37)	24	13
Low (N=37)	13	24

$\Phi = +.29$

Chi Square = 6.22 (significant at the 1% level)

TABLE 44

CORRELATION BETWEEN PREDICTED AND OBSERVED RELATIONSHIPS
FOR EXTENT COMPUTER FELT TO BE DISRUPTING AS PREDICTED
BY DOGMATISM AND ANXIETY IN COMBINATION

Predicted	Observed	
	Extent Felt to be Disrupting	
	Not disrupting at all, or have no idea (N=48)	Slightly, quite, or very disrupting (N=26)
Extent Felt to be Disrupting		
Not disrupting at all, or have no idea (N=37)	25	12
Slightly, quite, or very disrupting (N=37)	23	14

Phi = +.06
Chi Square = .27 (not significant)

TABLE 45

CORRELATION BETWEEN PREDICTED AND OBSERVED RELATIONSHIPS
FOR LENGTH OF TIME TAKEN TO GET USED TO COMPUTER AS
PREDICTED BY DOGMATISM AND ANXIETY IN COMBINATION

Predicted	Observed	
	Length of Time	
	Up to one month or not affected by computer (N=65)	More than one month up to not used to computer yet (N=9)
Length of Time		
Up to one month or not affected by computer (N=37)	33	4
More than one month up to not used to computer yet (N=37)	32	5

Phi = +.04
Chi Square = .12 (not significant)

TABLE 46

CORRELATION BETWEEN PREDICTED AND OBSERVED RELATIONSHIPS
FOR FEELING ABOUT INSTALLATION OF COMPUTER AS PREDICTED
BY DOGMATISM AND ANXIETY IN COMBINATION

Predicted	Observed	
	Feeling about Computer	
	Liked very much (N=18)	Liked less or Disliked (N=56)
Feeling about Computer		
Liked very much (N=37)	13	24
Liked less or Disliked (N=37)	5	32

$\Phi = +.25$

Chi Square = 4.62 (significant at the 5% level)

The following tables use Home Office data (N=170).

TABLE 47

CORRELATION OF PRE CHANGE AND POST CHANGE
ATTITUDE TOWARD CHANGE

Post Change Attitude Toward Change	Pre Change Attitude Toward Change	
	High (N=85)	Low (N=85)
High (N=87)	58	29
Low (N=83)	27	56

Tetrachoric $r = .51$ (significant at the 1% level)

The correlation coefficients between dogmatism and pre change attitude toward change (-.37) and dogmatism and post change attitude toward change (-.47) were compared using a z' transformation. The z'_1 for -.37 was .39. The z'_2 for -.47 was .51. The difference between z'_1 and z'_2 was .12. The standard error of the difference was .1095. The $z = 1.09$. Such a z covers an area on the normal curve of .8621. Thus, the correlation between dogmatism and pre change attitude toward change and the correlation between dogmatism and post change attitude toward change are not significantly different.

Table 48 shows that pre change and post change attitude toward change means were not significantly different from one another.

TABLE 48
A COMPARISON OF PRE CHANGE AND POST CHANGE
ATTITUDE TOWARD CHANGE MEANS

Population Parameters	Attitude Toward Change	
	Pre Change (N=170)	Post Change (N=170)
Mean	26.35	26.86
Variance	35.22	37.48

Difference between means = -.51
 $t = -.79$ (not significant)

Despite the lack of difference shown in Table 48, an attempt was made to compare high and low dogmatism scores with increase or decrease in score between pre change and post change in attitude toward change. To do this, the number of employees in the upper 50 per cent

group on dogmatism were categorized into "down" (meaning their scores on attitude toward change were lower on the post change than the pre change) and "up" groups (meaning their scores on attitude toward change were higher on the post change than on the pre change). This was done also for those employees in the lower 50 per cent group on dogmatism.

Table 49 shows that dogmatism is not related to change in attitude toward change between pre change and post change, no matter whether the "no change" scores are added to the "up" or the "down" group.

TABLE 49

THE RELATION OF DOGMATISM SCORES TO CHANGE
IN ATTITUDE TOWARD CHANGE SCORES BETWEEN
PRE CHANGE AND POST CHANGE

Change in Attitude Toward Change Scores	Dogmatism	
	High (N=85)	Low (N=85)
Up	42	43
Down	39	40
No Change	4	2
(or)		
Up	42	43
Down and No Change	43	42

Phi = 0

Chi Square = 0 (not significant)

The following tables all use data from Home and Branch Offices combined (N=244).

TABLE 50
CORRELATIONS BETWEEN DOGMATISM AND SEX

Sex	Supervisors		Nonsupervisors		Total Group	
	Dogmatism					
	High (N=13)	Low (N=33)	High (N=103)	Low (N=95)	High (N=116)	Low (N=128)
Male (N, Total = 52)	5	20	11	16	16	36
Female (N, Total = 192)	8	13	92	79	100	92
	Phi = .20 Chi Square = 1.84 (not significant)		Phi = .08 Chi Square = 1.27 (not significant)		Phi = .17 Chi Square = 7.05 (significant at 1% level)	

TABLE 51
CORRELATIONS BETWEEN DOGMATISM AND AGE

Age	Supervisors		Nonsupervisors		Total Group	
	Dogmatism					
	High (N=13)	Low (N=33)	High (N=103)	Low (N=95)	High (N=116)	Low (N=128)
31 and older (N, Total = 78)	13	22	34	29	27	51
30 and younger (N, Total = 166)	. .	11	69	66	89	77
	$r_{tet} = 0$ (not significant)		$r_{tet} = .05$ (not significant)		$r_{tet} = .30$ (significant at 1% level)	

TABLE 52

CORRELATIONS BETWEEN DOGMATISM AND EDUCATION

Education	Supervisors		Nonsupervisors		Total Group	
	Dogmatism					
	High (N=13)	Low (N=33)	High (N=103)	Low (N=95)	High (N=116)	Low (N=128)
Some college or more (N, Total = 54)	4	20	15	15	19	35
High school or less (N, Total=190)	9	13	88	80	97	93
	$r_{tet} = .46$ (significant at 1% level)		$r_{tet} = .04$ (not significant)		$r_{tet} = .25$ (significant at 1% level)	

TABLE 53

CORRELATIONS BETWEEN DOGMATISM AND PRE CHANGE JOB SATISFACTION

Pre Change Job Satisfaction	Supervisors		Nonsupervisors		Total Group	
	Dogmatism					
	High (N=13)	Low (N=33)	High (N=103)	Low (N=95)	High (N=116)	Low (N=128)
Completely, very satisfied (N, Total = 118)	7	16	43	52	50	68
Quite, somewhat, not satisfied (N, Total = 126)	6	17	60	43	66	60
	$r_{tet} = .08$ (not significant)		$r_{tet} = .20$ (not significant)		$r_{tet} = .16$ (not significant)	

TABLE 54

CORRELATIONS BETWEEN DOGMATISM AND POST CHANGE JOB SATISFACTION

Post Change Job Satisfaction	Supervisors		Nonsupervisors		Total Group	
	Dogmatism					
	High (N=13)	Low (N=33)	High (N=103)	Low (N=95)	High (N=116)	Low (N=128)
Completely, very satisfied (N, Total =136)	9	18	59	50	68	68
Quite, somewhat, not satisfied (N, Total = 108)	4	15	44	45	48	60
	$r_{tet} = .24$ (not significant)		$r_{tet} = .07$ (not significant)		$r_{tet} = .09$ (not significant)	

TABLE 55

CORRELATIONS BETWEEN ANXIETY AND SEX

Sex	Supervisors		Nonsupervisors		Total Group	
	Anxiety					
	High (N=23)	Low (N=23)	High (N=99)	Low (N=99)	High (N=122)	Low (N=122)
Male (N, Total = 52)	10	15	2	25	12	40
Female (N, Total = 192)	13	8	97	74	110	82
	Phi = .20 Chi Square = 1.84 (not significant)		Phi = .34 Chi Square = 22.89 (significant at 1% level)		Phi = .28 Chi Square = 19.52 (significant at 1% level)	

TABLE 56

CORRELATIONS BETWEEN ANXIETY AND AGE

Age	Supervisors		Nonsupervisors		Total Group	
	Anxiety					
	High (N=23)	Low (N=23)	High (N=99)	Low (N=99)	High (N=122)	Low (N=122)
31 and older (N, Total = 98)	18	17	33	30	51	47
30 and younger (N, Total = 146)	5	6	66	69	71	75
	$r_{tet} = .09$ (not significant)		$r_{tet} = .06$ (not significant)		$r_{tet} = .05$ (not significant)	

TABLE 57

CORRELATIONS BETWEEN ANXIETY AND EDUCATION

Education	Supervisors		Nonsupervisors		Total Group	
	Anxiety					
	High (N=23)	Low (N=23)	High (N=99)	Low (N=99)	High (N=122)	Low (N=122)
Some college or more (N, Total = 54)	13	11	17	13	30	24
High school or less (N, Total = 190)	10	12	82	86	92	98
	$r_{tet} = .14$ (not significant)		$r_{tet} = .13$ (not significant)		$r_{tet} = .16$ (not significant)	

TABLE 58

CORRELATIONS BETWEEN ANXIETY AND PRE CHANGE JOB SATISFACTION

Pre Change Job Satisfaction	Supervisors		Nonsupervisors		Total Group	
	Anxiety					
	High (N=23)	Low (N=23)	High (N=99)	Low (N=99)	High (N=122)	Low (N=122)
Completely, very satisfied (N, Total = 118)	6	17	26	69	32	86
Quite, somewhat, not satisfied (N, Total = 126)	17	6	73	30	90	36
	$r_{tet} = .68$ (significant at 1% level)		$r_{tet} = .47$ (significant at 1% level)		$r_{tet} = .64$ (significant at 1% level)	

TABLE 59

CORRELATIONS BETWEEN ANXIETY AND POST CHANGE JOB SATISFACTION

Post Change Job Satisfaction	Supervisors		Nonsupervisors		Total Group	
	Anxiety					
	High (N=23)	Low (N=23)	High (N=99)	Low (N=99)	High (N=122)	Low (N=122)
Completely, very satisfied (N, Total = 136)	11	16	40	69	51	85
Quite, somewhat, not satisfied (N, Total = 108)	12	7	59	30	71	37
	$r_{tet} = .35$ (significant at 5% level)		$r_{tet} = .45$ (significant at 1% level)		$r_{tet} = .43$ (significant at 1% level)	

TABLE 60

CORRELATIONS BETWEEN PRE CHANGE ATTITUDE TOWARD CHANGE AND SEX

Sex	Supervisors		Nonsupervisors		Total Group	
	Attitude Toward Change					
	High (N=36)	Low (N=10)	High (N=98)	Low (N=100)	High (N=134)	Low (N=110)
Male (N, Total = 52)	21	4	17	10	38	14
Female (N, Total = 192)	15	6	81	90	96	96
	Phi = .15 Chi Square = 1.04 (not significant)		Phi = .10 Chi Square = 1.98 (not significant)		Phi = .18 Chi Square = 7.90 (significant at 1% level)	

TABLE 61

CORRELATIONS BETWEEN PRE CHANGE ATTITUDE TOWARD CHANGE AND AGE

Age	Supervisors		Nonsupervisors		Total Group	
	Attitude Toward Change					
	High (N=36)	Low (N=10)	High (N=98)	Low (N=100)	High (N=134)	Low (N=110)
31 and older (N, Total = 98)	30	5	29	34	59	39
30 and younger (N, Total = 146)	6	5	69	66	75	71
	$r_{tet} = .57$ (significant at 1% level)		$r_{tet} = .08$ (not significant)		$r_{tet} = .15$ (not significant)	

TABLE 62

CORRELATIONS BETWEEN PRE CHANGE ATTITUDE TOWARD CHANGE AND EDUCATION

Education	Supervisors		Nonsupervisors		Total Group	
	Attitude Toward Change					
	High (N=36)	Low (N=10)	High (N=98)	Low (N=100)	High (N=134)	Low (N=110)
Some college or more (N, Total = 54)	20	4	20	10	40	14
High school or less (N, Total = 190)	16	6	78	90	94	96
	$r_{tet} = .24$ (not significant)		$r_{tet} = .32$ (significant at 1% level)		$r_{tet} = .40$ (significant at 1% level)	

TABLE 63

CORRELATIONS BETWEEN PRE CHANGE ATTITUDE TOWARD CHANGE
AND PRE CHANGE JOB SATISFACTION

Pre Change Job Satisfaction	Supervisors		Nonsupervisors		Total Group	
	Attitude Toward Change					
	High (N=36)	Low (N=10)	High (N=98)	Low (N=100)	High (N=134)	Low (N=110)
Completely, very satisfied (N, Total = 118)	17	6	43	52	60	58
Quite, somewhat, not satisfied (N, Total = 126)	19	4	55	48	74	52
	$r_{tet} = .20$ (not significant)		$r_{tet} = .13$ (not significant)		$r_{tet} = .12$ (not significant)	

TABLE 64

**CORRELATIONS BETWEEN PRE CHANGE ATTITUDE TOWARD CHANGE
AND POST CHANGE JOB SATISFACTION**

Post Change Job Satisfaction	Supervisors		Nonsupervisors		Total Group	
	Attitude Toward Change					
	High (N=36)	Low (N=10)	High (N=98)	Low (N=100)	High (N=134)	Low (N=110)
Completely, very satisfied (N, Total = 136)	21	6	56	53	77	59
Quite, somewhat, not satisfied (N, Total = 108)	15	4	42	47	57	51
	$r_{tet} = .03$ (not significant)		$r_{tet} = .07$ (not significant)		$r_{tet} = .06$ (not significant)	

TABLE 65

**CORRELATIONS BETWEEN PRE CHANGE ATTITUDE TOWARD CHANGE AND
CHANGE IN JOB SATISFACTION AFTER COMPUTER INTRODUCTION**

Change in Job Satisfaction	Supervisors		Nonsupervisors		Total Group	
	Attitude Toward Change					
	High (N=36)	Low (N=10)	High (N=98)	Low (N=100)	High (N=134)	Low (N=110)
More satisfied now (N, Total = 93)	11	3	48	31	59	34
No change or less satisfied now (N, Total = 151)	25	7	50	69	75	76
	$r_{tet} = .01$ (not significant)		$r_{tet} = .29$ (significant at 5% level)		$r_{tet} = .22$ (significant at 5% level)	

TABLE 66

CORRELATIONS BETWEEN PRE CHANGE ATTITUDE TOWARD CHANGE AND
EXTENT COMPUTER FELT TO BE DISRUPTING

Extent Felt to be Disrupting	Supervisors		Nonsupervisors		Total Group	
	Attitude Toward Change					
	High (N=36)	Low (N=10)	High (N=98)	Low (N=100)	High (N=134)	Low (N=110)
Not disrupting at all, or have no idea (N, Total = 128)	14	6	58	50	72	56
Slightly, quite, or very disrupting (N, Total = 116)	22	4	40	50	62	54
	$r_{tet} = .33$ (not significant)		$r_{tet} = .15$ (not significant)		$r_{tet} = .04$ (not significant)	

TABLE 67

CORRELATIONS BETWEEN PRE CHANGE ATTITUDE TOWARD CHANGE AND
LENGTH OF TIME TAKEN TO GET USED TO COMPUTER

Length of Time	Supervisors		Nonsupervisors		Total Group	
	Attitude Toward Change					
	High (N=36)	Low (N=10)	High (N=98)	Low (N=100)	High (N=134)	Low (N=110)
Up to one month or not affected (N, Total = 186)	29	8	76	73	105	81
More than one month up to not used to computer yet (N, Total = 58)	7	2	22	27	29	29
	$r_{tet} = .01$ (not significant)		$r_{tet} = .09$ (not significant)		$r_{tet} = .10$ (not significant)	

TABLE 68

CORRELATIONS BETWEEN PRE CHANGE ATTITUDE TOWARD CHANGE AND
FEELING ABOUT CHANGES WHICH HAD OR HAD NOT TAKEN PLACE
ON THE JOB

Feeling about Change	Supervisors		Nonsupervisors		Total Group	
	Attitude Toward Change					
	High (N=36)	Low (N=10)	High (N=98)	Low (N=100)	High (N=134)	Low (N=110)
Change and liked, No change and disliked (N, Total = 201)	27	9	83	82	110	91
Change and dis- liked, No change and liked (N, Total = 43)	9	1	15	18	24	19
	$r_{tet} = .41$ (significant at 5% level)		$r_{tet} = .08$ (not significant)		$r_{tet} = .02$ (not significant)	

TABLE 69

CORRELATIONS BETWEEN PRE CHANGE ATTITUDE TOWARD CHANGE AND
FEELING ABOUT INSTALLATION OF COMPUTER

Feeling about Computer	Supervisors		Nonsupervisors		Total Group	
	Attitude Toward Change					
	High (N=36)	Low (N=10)	High (N=98)	Low (N=100)	High (N=134)	Low (N=110)
Liked very much (N, Total = 39)	11	3	20	5	31	8
Liked less or Disliked (N, Total = 205)	25	7	78	95	103	102
	$r_{tet} = .01$ (not significant)		$r_{tet} = .56$ (significant at 1% level)		$r_{tet} = .49$ (significant at 1% level)	

TABLE 70

CORRELATIONS BETWEEN AGE AND SEX

Sex	Supervisors		Nonsupervisors		Total Group	
	Age					
	High (N=35)	Low (N=11)	High (N=63)	Low (N=135)	High (N=98)	Low (N=146)
Male (N, Total = 52)	21	4	13	14	34	18
Female (N, Total = 192)	14	7	50	121	64	128
	Phi = .04 Chi Square = 1.84 (not significant)		Phi = .13 Chi Square = 3.35 (not significant)		Phi = .27 Chi Square = 22.19 (significant at 1% level)	

TABLE 71

CORRELATIONS BETWEEN AGE AND EDUCATION

Education	Supervisors		Nonsupervisors		Total Group	
	Age					
	High (N=35)	Low (N=11)	High (N=63)	Low (N=135)	High (N=98)	Low (N=146)
Some college or more (N, Total = 54)	19	5	15	15	34	20
High school or less (N, Total = 190)	16	6	48	120	64	126
	$r_{tet} = .14$ (not significant)		$r_{tet} = .35$ (significant at 1% level)		$r_{tet} = .45$ (significant at 1% level)	

TABLE 72

CORRELATIONS BETWEEN AGE AND PRE CHANGE JOB SATISFACTION

Pre Change Job Satisfaction	Supervisors		Nonsupervisors		Total Group	
	Age					
	High (N=35)	Low (N=11)	High (N=63)	Low (N=135)	High (N=98)	Low (N=146)
Completely, very satisfied (N, Total = 118)	23	. .	29	66	52	66
Quite, somewhat, not satisfied (N, Total = 126)	12	11	34	69	46	80
	$r_{tet} = 0$ (not significant)		$r_{tet} = .05$ (not significant)		$r_{tet} = .12$ (not significant)	

TABLE 73

CORRELATIONS BETWEEN AGE AND POST CHANGE JOB SATISFACTION

Post Change Job Satisfaction	Supervisors		Nonsupervisors		Total Group	
	Age					
	High (N=35)	Low (N=11)	High (N=63)	Low (N=135)	High (N=98)	Low (N=146)
Completely, very satisfied (N, Total = 136)	20	7	30	79	50	86
Quite, somewhat, not satisfied (N, Total = 108)	15	4	33	56	48	60
	$r_{tet} = .11$ (not significant)		$r_{tet} = .17$ (not significant)		$r_{tet} = .12$ (not significant)	

TABLE 74

CORRELATIONS BETWEEN AGE AND EXTENT COMPUTER FELT TO BE DISRUPTING

Extent Felt to be Disrupting	Supervisors		Nonsupervisors		Total Group	
	Age					
	High (N=35)	Low (N=11)	High (N=63)	Low (N=135)	High (N=98)	Low (N=146)
Not disrupting at all, or have no idea (N, Total = 128)	16	4	32	76	48	80
Slightly, quite, or very disrupting (N, Total = 116)	19	7	31	59	50	66
	$r_{tet} = .15$ (not significant)		$r_{tet} = .09$ (not significant)		$r_{tet} = .10$ (not significant)	

TABLE 75

CORRELATIONS BETWEEN AGE AND LENGTH OF TIME TAKEN
TO GET USED TO COMPUTER

Length of Time	Supervisors		Nonsupervisors		Total Group	
	Age					
	High (N=35)	Low (N=11)	High (N=63)	Low (N=135)	High (N=98)	Low (N=146)
Up to one month or not affected (N, Total = 186)	26	11	45	104	71	115
More than one month up to not used to computer yet (N, Total = 58)	9	. .	18	31	27	31
	$r_{tet} = 0$ (not significant)		$r_{tet} = .69$ (significant at 1% level)		$r_{tet} = .14$ (not significant)	

TABLE 76

CORRELATIONS BETWEEN AGE AND FEELING ABOUT CHANGES WHICH HAD OR
HAD NOT TAKEN PLACE ON THE JOB

Feeling about Change	Supervisors		Nonsupervisors		Total Group	
	Age					
	High (N=35)	Low (N=11)	High (N=63)	Low (N=135)	High (N=98)	Low (N=146)
Change and liked, No change and disliked (N, Total = 201)	27	9	51	114	78	123
Change and dis- liked, No change and liked (N, Total = 43)	8	2	12	21	20	23
	$r_{tet} = .13$ (not significant)		$r_{tet} = .09$ (not significant)		$r_{tet} = .16$ (not significant)	

TABLE 77

CORRELATIONS BETWEEN AGE AND FEELING ABOUT INSTALLATION OF COMPUTER

Feeling about Computer	Supervisors		Nonsupervisors		Total Group	
	Age					
	High (N=35)	Low (N=11)	High (N=63)	Low (N=135)	High (N=98)	Low (N=146)
Liked very much (N, Total = 39)	12	2	8	17	20	19
Liked less or Disliked (N, Total = 205)	23	9	55	118	78	127
	$r_{tet} = .32$ (not significant)		$r_{tet} = 0$ (not significant)		$r_{tet} = .21$ (not significant)	

TABLE 78

CORRELATIONS BETWEEN SEX AND EDUCATION

Education	Supervisors		Nonsupervisors		Total Group	
	Sex					
	Male (N=25)	Female (N=21)	Male (N=27)	Female (N=171)	Male (N=52)	Female (N=192)
Some college or more (N, Total = 54)	17	7	11	19	28	26
High school or less (N, Total = 190)	8	14	16	152	24	166
	Phi = .34 Chi Square = 5.32 (significant at 5% level)		Phi = .28 Chi Square = 15.52 (significant at 1% level)		Phi = .39 Chi Square = 37.11 (significant at 1% level)	

TABLE 79

CORRELATIONS BETWEEN SEX AND POST CHANGE JOB SATISFACTION

Post Change Job Satisfaction	Supervisors		Nonsupervisors		Total Group	
	Sex					
	Male (N=25)	Female (N=21)	Male (N=27)	Female (N=171)	Male (N=52)	Female (N=192)
Completely, very satisfied (N, Total = 136)	12	15	12	97	24	112
Quite, somewhat, not satisfied (N, Total = 108)	13	6	15	74	28	80
	Phi = .23 Chi Square = 2.43 (not significant)		Phi = .08 Chi Square = 1.27 (not significant)		Phi = .10 Chi Square = 2.44 (not significant)	

TABLE 80

CORRELATIONS BETWEEN SEX AND EXTENT COMPUTER FELT TO BE DISRUPTING

Extent Felt to be Disrupting	Supervisors		Nonsupervisors		Total Group	
	Sex					
	Male (N=25)	Female (N=21)	Male (N=27)	Female (N=171)	Male (N=52)	Female (N=192)
Not disrupting at all, or have no idea (N, Total = 128)	10	10	10	98	20	108
Slightly, quite, or very disrupting (N, Total = 116)	15	11	17	73	32	84
	Phi = .07 Chi Square = .22 (not significant)		Phi = .13 Chi Square = 3.35 (not significant)		Phi = .14 Chi Square = 4.78 (significant at 5% level)	

TABLE 81

CORRELATIONS BETWEEN SEX AND LENGTH OF TIME TAKEN TO GET USED TO COMPUTER

Length of Time	Supervisors		Nonsupervisors		Total Group	
	Sex					
	Male (N=25)	Female (N=21)	Male (N=27)	Female (N=171)	Male (N=52)	Female (N=192)
Up to one month or not affected (N, Total = 186)	21	16	17	132	38	148
More than one month up to not used to computer yet (N, Total = 58)	4	5	10	39	14	44
	Phi = .09 Chi Square = .37 (not significant)		Phi = .11 Chi Square = 2.40 (not significant)		Phi = .03 Chi Square = .22 (not significant)	

TABLE 82

CORRELATIONS BETWEEN SEX AND FEELING ABOUT CHANGES WHICH HAD OR
HAD NOT TAKEN PLACE ON THE JOB

Feeling about Change	Supervisors		Nonsupervisors		Total Group	
	Sex					
	Male (N=25)	Female (N=21)	Male (N=27)	Female (N=171)	Male (N=52)	Female (N=192)
Change and liked, No change and disliked (N, Total = 201)	20	16	23	142	43	158
Change and dis- liked, No change and liked (N, Total = 43)	5	5	4	29	9	34
	Phi = .04 Chi Square = .07 (not significant)		Phi = .01 Chi Square = .02 (not significant)		Phi = 0 Chi Square = 0 (not significant)	

TABLE 83

CORRELATIONS BETWEEN SEX AND FEELING ABOUT INSTALLATION OF COMPUTER

Feeling about Computer	Supervisors		Nonsupervisors		Total Group	
	Sex					
	Male (N=25)	Female (N=21)	Male (N=27)	Female (N=171)	Male (N=52)	Female (N=192)
Liked very much (N, Total = 39)	11	3	7	18	18	21
Liked less or Disliked (N, Total = 205)	14	18	20	153	34	171
	Phi = .32 Chi Square = 4.71 (significant at 5% level)		Phi = .15 Chi Square = 4.46 (significant at 5% level)		Phi = .26 Chi Square = 16.49 (significant at 1% level)	

TABLE 84

CORRELATIONS BETWEEN EDUCATION AND PRE CHANGE JOB SATISFACTION

Pre Change Job Satisfaction	Supervisors		Nonsupervisors		Total Group	
	Education					
	High (N=24)	Low (N=22)	High (N=30)	Low (N=168)	High (N=54)	Low (N=190)
Completely, very satisfied (N, Total = 118)	8	15	9	86	17	101
Quite, somewhat, not satisfied (N, Total = 126)	16	7	21	82	37	89
	$r_{tet} = .52$ (significant at 1% level)		$r_{tet} = .34$ (significant at 1% level)		$r_{tet} = .34$ (significant at 1% level)	

TABLE 85

CORRELATIONS BETWEEN EDUCATION AND POST CHANGE JOB SATISFACTION

Post Change Job Satisfaction	Supervisors		Nonsupervisors		Total Group	
	Education					
	High (N=24)	Low (N=22)	High (N=30)	Low (N=168)	High (N=54)	Low (N=190)
Completely, very satisfied (N, Total = 136)	12	15	13	96	25	111
Quite, somewhat, not satisfied (N, Total = 108)	12	7	17	72	29	79
	$r_{tet} = .29$ (not significant)		$r_{tet} = .22$ (significant at 5% level)		$r_{tet} = .19$ (significant at 5% level)	

TABLE 86

CORRELATIONS BETWEEN EDUCATION AND EXTENT COMPUTER FELT TO BE DISRUPTING

Extent Felt to be Disrupting	Supervisors		Nonsupervisors		Total Group	
	Education					
	High (N=24)	Low (N=22)	High (N=30)	Low (N=168)	High (N=54)	Low (N=190)
Not disrupting at all, or have no idea (N, Total = 128)	11	9	13	95	24	104
Slightly, quite, or very disrupting (N, Total = 116)	13	13	17	73	30	86
	$r_{tet} = .08$ (not significant)		$r_{tet} = .21$ (not significant)		$r_{tet} = .16$ (not significant)	

TABLE 87

CORRELATIONS BETWEEN EDUCATION AND LENGTH OF TIME TAKEN
TO GET USED TO COMPUTER

Length of Time	Supervisors		Nonsupervisors		Total Group	
	Education					
	High (N=24)	Low (N=22)	High (N=30)	Low (N=168)	High (N=54)	Low (N=190)
Up to one month or not affected (N, Total = 186)	20	17	21	128	41	145
More than one month up to not used to computer yet (N, Total = 58)	4	5	9	40	13	45
	$r_{tet} = .15$ (not significant)		$r_{tet} = .12$ (not significant)		$r_{tet} = .01$ (not significant)	

TABLE 88

CORRELATIONS BETWEEN EDUCATION AND FEELING ABOUT CHANGES
WHICH HAD OR HAD NOT TAKEN PLACE ON THE JOB

Feeling about Change	Supervisors		Nonsupervisors		Total Group	
	Education					
	High (N=24)	Low (N=22)	High (N=30)	Low (N=168)	High (N=54)	Low (N=190)
Change and liked, No change and disliked (N, Total = 201)	18	18	25	140	43	158
Change and dis- liked, No change and liked (N, Total = 43)	6	4	5	28	11	32
	$r_{tet} = .16$ (not significant)		$r_{tet} = 0$ (not significant)		$r_{tet} = .09$ (not significant)	

TABLE 89

CORRELATIONS BETWEEN EDUCATION AND FEELING ABOUT INSTALLATION OF COMPUTER

Feeling about Computer	Supervisors		Nonsupervisors		Total Group	
	Education					
	High (N=24)	Low (N=22)	High (N=30)	Low (N=168)	High (N=54)	Low (N=190)
Liked very much (N, Total = 39)	11	3	7	18	18	21
Liked less or Disliked (N, Total = 205)	13	19	23	150	36	169
	$r_{tet} = .58$ (significant at 5% level)		$r_{tet} = .35$ (significant at 5% level)		$r_{tet} = .50$ (significant at 1% level)	

TABLE 90

CORRELATIONS BETWEEN PRE CHANGE JOB SATISFACTION AND SEX

Sex	Supervisors		Nonsupervisors		Total Group	
	Job Satisfaction					
	High (N=23)	Low (N=23)	High (N=95)	Low (N=103)	High (N=118)	Low (N=126)
Male (N, Total = 52)	9	16	10	17	19	33
Female (N, Total = 192)	14	7	85	86	99	93
	Phi = .30 Chi Square = 4.14 (significant at 5% level)		Phi = .09 Chi Square = 1.60 (not significant)		Phi = .13 Chi Square = 4.12 (significant at 5% level)	

TABLE 91

CORRELATIONS BETWEEN PRE CHANGE JOB SATISFACTION AND
POST CHANGE JOB SATISFACTION

Post Change Job Satisfaction	Supervisors		Nonsupervisors		Total Group	
	Job Satisfaction					
	High (N=23)	Low (N=23)	High (N=95)	Low (N=103)	High (N=118)	Low (N=126)
Completely, very satisfied (N, Total = 136)	14	13	69	40	83	53
Quite, somewhat, not satisfied (N, Total = 108)	9	10	26	63	35	73
	r _{tet} = .07 (not significant)		r _{tet} = .51 (significant at 1% level)		r _{tet} = .44 (significant at 1% level)	

TABLE 92

**CORRELATIONS BETWEEN PRE CHANGE JOB SATISFACTION AND CHANGE
IN JOB SATISFACTION AFTER INSTALLATION OF COMPUTER**

Change in Job Satisfaction	Supervisors		Nonsupervisors		Total Group	
	Job Satisfaction					
	High (N=23)	Low (N=23)	High (N=95)	Low (N=103)	High (N=118)	Low (N=126)
More satisfied now (N, Total = 93)	10	4	45	34	55	38
No change or less satisfied now (N, Total = 151)	13	19	50	69	63	88
	$r_{tet} = .47$ (significant at 5% level)		$r_{tet} = .23$ (significant at 5% level)		$r_{tet} = .27$ (significant at 5% level)	

TABLE 93

**CORRELATIONS BETWEEN PRE CHANGE JOB SATISFACTION AND
EXTENT COMPUTER FELT TO BE DISRUPTING**

Extent Felt to be Disrupting	Supervisors		Nonsupervisors		Total Group	
	Job Satisfaction					
	High (N=23)	Low (N=23)	High (N=95)	Low (N=103)	High (N=118)	Low (N=126)
Not disrupting at all, or have no idea (N, Total = 128)	8	12	47	61	55	73
Slightly, quite, or very disrupting (N, Total = 116)	15	11	48	42	63	53
	$r_{tet} = .27$ (not significant)		$r_{tet} = .15$ (not significant)		$r_{tet} = .13$ (not significant)	

TABLE 94

CORRELATIONS BETWEEN PRE CHANGE JOB SATISFACTION AND LENGTH OF TIME TAKEN TO GET USED TO COMPUTER

Length of Time	Supervisors		Nonsupervisors		Total Group	
	Job Satisfaction					
	High (N=23)	Low (N=23)	High (N=95)	Low (N=103)	High (N=118)	Low (N=126)
Up to one month or not affected (N, Total = 186)	18	19	75	74	93	93
More than one month up to not used to computer yet (N, Total = 58)	5	4	20	29	25	33
	$r_{tet} = .11$ (not significant)		$r_{tet} = .15$ (not significant)		$r_{tet} = .11$ (not significant)	

TABLE 95

CORRELATIONS BETWEEN PRE CHANGE JOB SATISFACTION AND FEELING ABOUT CHANGES WHICH HAD OR HAD NOT TAKEN PLACE ON JOB

Feeling about Change	Supervisors		Nonsupervisors		Total Group	
	Job Satisfaction					
	High (N=23)	Low (N=23)	High (N=95)	Low (N=103)	High (N=118)	Low (N=126)
Change and liked, No change and disliked (N, Total = 201)	17	19	79	86	96	105
Change and dis- liked, No change and liked (N, Total = 43)	6	4	16	17	22	21
	$r_{tet} = .20$ (not significant)		$r_{tet} = .01$ (not significant)		$r_{tet} = .05$ (not significant)	

TABLE 96

CORRELATIONS BETWEEN PRE CHANGE JOB SATISFACTION
AND FEELING ABOUT INSTALLATION OF COMPUTER

Feeling about Computer	Supervisors		Nonsupervisors		Total Group	
	Job Satisfaction					
	High (N=23)	Low (N=23)	High (N=95)	Low (N=103)	High (N=118)	Low (N=126)
Liked very much (N, Total = 39)	6	8	10	15	16	23
Liked less or Disliked (N, Total = 205)	17	15	85	88	102	103
	$r_{tet} = .16$ (not significant)		$r_{tet} = .14$ (not significant)		$r_{tet} = .14$ (not significant)	

TABLE 97

CORRELATIONS BETWEEN CHANGE IN JOB SATISFACTION
AFTER INSTALLATION OF COMPUTER AND AGE

Age	Supervisors		Nonsupervisors		Total Group	
	Change in Job Satisfaction					
	Higher (N=14)	Lower (N=32)	Higher (N=79)	Lower (N=119)	Higher (N=93)	Lower (N=151)
31 and older (N, Total = 98)	14	21	23	40	37	61
30 and younger (N, Total = 146)	. .	11	56	79	56	90
	r = 0 (not significant)		r = .08 (not significant)		r = .05 (not significant)	

TABLE 98

CORRELATIONS BETWEEN CHANGE IN JOB SATISFACTION AND SEX

Sex	Supervisors		Nonsupervisors		Total Group	
	Change in Job Satisfaction					
	Higher (N=14)	Lower (N=32)	Higher (N=79)	Lower (N=119)	Higher (N=93)	Lower (N=151)
Male (N, Total = 52)	7	18	12	15	19	33
Female (N, Total = 192)	7	14	67	104	74	118
	Phi = .05 Chi Square = .12 (not significant)		Phi = .03 Chi Square = .18 (not significant)		Phi = 0 Chi Square = 0 (not significant)	

TABLE 99

CORRELATIONS BETWEEN CHANGE IN JOB SATISFACTION AND EDUCATION

Education	Supervisors		Nonsupervisors		Total Group	
	Change in Job Satisfaction					
	Higher (N=14)	Lower (N=32)	Higher (N=79)	Lower (N=119)	Higher (N=93)	Lower (N=151)
Some college or more (N, Total = 54)	8	16	12	18	20	34
High school or less (N, Total = 190)	6	16	67	101	73	117
	$r_{tet} = .11$ (not significant)		$r_{tet} = 0$ (not significant)		$r_{tet} = .02$ (not significant)	

TABLE 100

**CORRELATIONS BETWEEN CHANGE IN JOB SATISFACTION AND
EXTENT COMPUTER FELT TO BE DISRUPTING**

Extent Felt to be Disrupting	Supervisors		Nonsupervisors		Total Group	
	Change in Job Satisfaction					
	Higher (N=14)	Lower (N=32)	Higher (N=79)	Lower (N=119)	Higher (N=93)	Lower (N=151)
Not disrupting at all, or have no idea (N, Total = 128)	5	15	35	73	40	88
Slightly, quite, or very disrupting (N, Total = 116)	9	17	44	46	53	63
	$r_{tet} = .18$ (not significant)		$r_{tet} = .27$ (significant at 5% level)		$r_{tet} = .24$ (significant at 5% level)	

TABLE 101

**CORRELATIONS BETWEEN CHANGE IN JOB SATISFACTION AND LENGTH OF TIME TAKEN
TO GET USED TO COMPUTER**

Length of Time	Supervisors		Nonsupervisors		Total Group	
	Change in Job Satisfaction					
	Higher (N=14)	Lower (N=32)	Higher (N=79)	Lower (N=119)	Higher (N=93)	Lower (N=151)
Up to one month or not affected (N, Total = 186)	11	26	63	86	74	112
More than one month up to not used to computer yet (N, Total = 58)	3	6	16	33	19	39
	$r_{tet} = .07$ (not significant)		$r_{tet} = .16$ (not significant)		$r_{tet} = .12$ (not significant)	

TABLE 102

CORRELATIONS BETWEEN CHANGE IN JOB SATISFACTION AND FEELING ABOUT CHANGES WHICH HAD OR HAD NOT TAKEN PLACE ON JOB

Feeling about Change	Supervisors		Nonsupervisors		Total Group	
	Change in Job Satisfaction					
	Higher (N=14)	Lower (N=32)	Higher (N=79)	Lower (N=119)	Higher (N=93)	Lower (N=151)
Change and liked, No change and disliked (N, Total = 201)	10	26	73	92	83	118
Change and dis- liked, No change and liked (N, Total = 43)	4	6	6	27	10	33
	$r_{tet} = .21$ (not significant)		$r_{tet} = .47$ (significant at 1% level)		$r_{tet} = .32$ (significant at 5% level)	

TABLE 103

CORRELATIONS BETWEEN CHANGE IN JOB SATISFACTION AND FEELING ABOUT INSTALLATION OF COMPUTER

Feeling about Computer	Supervisors		Nonsupervisors		Total Group	
	Change in Job Satisfaction					
	Higher (N=14)	Lower (N=32)	Higher (N=79)	Lower (N=119)	Higher (N=93)	Lower (N=151)
Liked very much (N, Total = 39)	6	8	13	12	19	20
Liked less or Disliked (N, Total = 205)	8	24	66	107	74	131
	$r_{tet} = .30$ (not significant)		$r_{tet} = .22$ (not significant)		$r_{tet} = .21$ (not significant)	

APPENDIX D

ADDENDUM

DISCUSSION OF RELATIONSHIPS BETWEEN PREDICTED AND OBSERVED ATTITUDES AND REACTIONS TO CHANGE

If one insists that it is not enough to find a positive relationship between predicted and observed attitudes and reactions to change in the branch office, and that Chi Square should be given for each phi coefficient, the null hypothesis is tenable for reactions to change except for feeling about installation of the computer. Thus, for reaction to change, cross validation from home office to branch office is not well supported (probably because the number of employees in the branch office is so small...or perhaps because the computer was physically located in the home office and not in the branch office.)

As the following tables show, however, prediction from branch to home office tend to support the original findings that an inverse relationship exists between dogmatism, anxiety, dogmatism and anxiety in combination, and both attitudes toward and reactions to change. Since predictions in one direction are better than in the other, validation of the findings is less satisfying than it might be, although perhaps the different findings can be explained by difference in size of employee populations.

On the following pages, predictions from branch office data were made to home office data and the resulting relationships between predicted and observed relationships for both attitude and reaction to change were tested by Chi Square. In each case, Chi Square was significant.

Thus, first branch office relationships between personality variables and attitudes and reactions to change were measured and

each led to the same prediction for home office data made earlier in the home office when predicting for branch office data. Then tables were prepared which showed the number in the home office who achieved and did not achieve the scores predicted from branch office data. Phi coefficients and Chi Squares were then computed for the relationships between predicted and observed variables.

The following tables show the branch office data and then the double cross validation for prediction from branch to home office. The results shown on the following tables lead this author to the conclusion that statements made in the main text of the thesis concerning the relationships between variables are upheld.

TABLE 104

SUMMARY OF TETRACHORIC CORRELATIONS FOUND BETWEEN HIGH DOGMATISM, ANXIETY, DOGMATISM AND ANXIETY IN COMBINATION, AND POSITIVE ATTITUDE AND REACTION TO CHANGE

Positive Attitude and Reaction to Change	Correlations		
	Dogmatism	Anxiety	Dogmatism & Anxiety
<u>Attitude</u>			
Pre change	-.50	-.34	-.42
Post change	-.41	-.41	-.41
<u>Reaction</u>			
Change in job satisfaction	. .	-.17	. .
Extent computer felt to be disrupting	-.22	-.42	-.23
Length of time taken to get used to computer	-.30	-.51	-.30
Feeling about changes which had or had not taken place on job	. .	. .	. .
Feeling about installation of computer	-.46	-.57	-.46

TABLE 105

CORRELATION BETWEEN PREDICTED AND OBSERVED RELATIONSHIPS
FOR PRE CHANGE ATTITUDE TOWARD CHANGE AS
PREDICTED BY DOGMATISM

Predicted	Observed	
	Pre Change Attitude Toward Change	
	High (N=94)	Low (N=76)
Pre Change Attitude Toward Change		
High (N=85)	37	48
Low (N=85)	57	28

$\Phi = +.23$

Chi Square = 8.50 (significant at the 1% level)

TABLE 106

CORRELATION BETWEEN PREDICTED AND OBSERVED RELATIONSHIPS
FOR POST CHANGE ATTITUDE TOWARD CHANGE AS
PREDICTED BY DOGMATISM

Predicted	Observed	
	Post Change Attitude Toward Change	
	High (N=87)	Low (N=83)
Post Change Attitude Toward Change		
High (N=85)	30	55
Low (N=85)	57	28

$\Phi = +.31$

Chi Square = 17.00 (significant at the 1% level)

TABLE 107

CORRELATION BETWEEN PREDICTED AND OBSERVED RELATIONSHIPS
FOR EXTENT COMPUTER FELT TO BE DISRUPTING AS
PREDICTED BY DOGMATISM

Predicted	Observed	
	Extent Felt to be Disrupting Not disrupting at all, or have no idea (N=83)	Slightly, quite, or very disrupting (N=87)
Extent Felt to be Disrupting		
Not disrupting at all, or have no idea (N=85)	33	52
Slightly, quite, or very disrupting (N=85)	50	35

Phi = +.19

Chi Square = 6.80 (significant at the 1% level)

TABLE 108

CORRELATION BETWEEN PREDICTED AND OBSERVED RELATIONSHIPS
FOR LENGTH OF TIME TAKEN TO GET USED TO CHANGEOVER
TO COMPUTER AS PREDICTED BY DOGMATISM

Predicted	Observed	
	Length of Time Up to one month or not affected by computer (N=120)	More than one month up to not used to computer yet (N=50)
Length of Time		
Up to one month or not affected by computer (N=85)	53	32
More than one month up to not used to computer yet (N=85)	67	18

Phi = +.18

Chi Square = 5.51 (significant at the 5% level)

TABLE 109

CORRELATION BETWEEN PREDICTED AND OBSERVED RELATIONSHIPS
FOR FEELING ABOUT INSTALLATION OF COMPUTER AS
PREDICTED BY DOGMATISM

Predicted	Observed	
	Feeling about Computer	
	Liked very much (N=21)	Liked less or Disliked (N=149)
Feeling about Computer		
Liked very much (N=85)	7	78
Liked less or Disliked (N=85)	14	71

$\Phi = +.13$

Chi Square = 3.40 (significant at the 5% level)

TABLE 110

CORRELATION BETWEEN PREDICTED AND OBSERVED RELATIONSHIPS
FOR PRE CHANGE ATTITUDE TOWARD CHANGE AS
PREDICTED BY ANXIETY

Predicted	Observed	
	Pre Change Attitude Toward Change	
	High (N=94)	Low (N=76)
Pre Change Attitude Toward Change		
High (N=85)	35	50
Low (N=85)	59	26

$\Phi = +.28$

Chi Square = 13.60 (significant at the 1% level)

TABLE 111

CORRELATION BETWEEN PREDICTED AND OBSERVED RELATIONSHIPS
FOR POST CHANGE ATTITUDE TOWARD CHANGE AS
PREDICTED BY ANXIETY

Predicted	Observed	
	Post Change Attitude Toward Change	
	High (N=87)	Low (N=83)
Post Change Attitude Toward Change		
High (N=85)	32	53
Low (N=85)	55	30

$\Phi = +.27$

Chi Square = 11.90 (significant at the 1% level)

TABLE 112

CORRELATION BETWEEN PREDICTED AND OBSERVED RELATIONSHIPS
FOR CHANGE IN JOB SATISFACTION AFTER INTRODUCTION
OF THE COMPUTER AS PREDICTED BY ANXIETY

Predicted	Observed	
	Change in Job Satisfaction	
	More satisfied now (N=57)	No change or less satisfied now (N=113)
Change in Job Satisfaction		
More satisfied now (N=85)	9	76
No change or less satisfied now (N=85)	48	37

$\Phi = +.48$

Chi Square = 39.10 (significant at the 1% level)

TABLE 113

CORRELATION BETWEEN PREDICTED AND OBSERVED RELATIONSHIPS
FOR EXTENT COMPUTER FELT TO BE DISRUPTING AS
PREDICTED BY ANXIETY

Predicted	Observed	
	Extent Felt to be Disrupting	
	Not disrupting at all, or have no idea (N=83)	Slightly, quite, or very disrupting (N=87)
Extent Felt to be Disrupting		
Not disrupting at all, or have no idea (N=85)	34	51
Slightly, quite, or very disrupting (N=85)	49	36

Phi = +.17

Chi Square = 5.10 (significant at the 5% level)

TABLE 114

CORRELATION BETWEEN PREDICTED AND OBSERVED RELATIONSHIPS
FOR LENGTH OF TIME TAKEN TO GET USED TO COMPUTER AS
PREDICTED BY ANXIETY

Predicted	Observed	
	Length of Time	
	Up to one month or not affected by computer (N=120)	More than one month up to not used to computer yet (N=50)
Length of Time		
Up to one month or not affected by computer (N=85)	50	35
More than one month up to not used to computer yet (N=85)	70	15

Phi = +.25

Chi Square = 10.20 (significant at the 1% level)

TABLE 115

CORRELATION BETWEEN PREDICTED AND OBSERVED RELATIONSHIPS
FOR FEELING ABOUT INSTALLATION OF COMPUTER AS
PREDICTED BY ANXIETY

Predicted	Observed	
	Feeling about Computer	
	Liked very much (N=21)	Liked less or Disliked (N=149)
Feeling about Computer		
Liked very much (N=85)	6	79
Liked less or Disliked (N=85)	15	70

Phi = +.16

Chi Square = 5.10 (significant at the 5% level)

TABLE 116

CORRELATION BETWEEN PREDICTED AND OBSERVED RELATIONSHIPS
FOR PRE CHANGE ATTITUDE TOWARD CHANGE AS PREDICTED
BY DOGMATISM AND ANXIETY IN COMBINATION

Predicted	Observed	
	Pre Change Attitude Toward Change	
	High (N=94)	Low (N=76)
Pre Change Attitude Toward Change		
High (N=85)	40	45
Low (N=85)	54	31

Phi = +.16

Chi Square = 5.10 (significant at the 5% level)

TABLE 117

CORRELATION BETWEEN PREDICTED AND OBSERVED RELATIONSHIPS
FOR POST CHANGE ATTITUDE TOWARD CHANGE AS PREDICTED
BY DOGMATISM AND ANXIETY IN COMBINATION

Predicted	Observed	
	Post Change Attitude Toward Change	
	High (N=87)	Low (N=83)
Post Change Attitude Toward Change		
High (N=85)	33	52
Low (N=85)	54	31

$\Phi = +.24$

Chi Square = 10.20 (significant at the 1% level)

TABLE 118

CORRELATION BETWEEN PREDICTED AND OBSERVED RELATIONSHIPS
FOR EXTENT COMPUTER FELT TO BE DISRUPTING AS PREDICTED
BY DOGMATISM AND ANXIETY IN COMBINATION

Predicted	Observed	
	Extent Felt to be Disrupting	
	Not disrupting at all, or have no idea (N=83)	Slightly, quite, or very disrupting (N=87)
Extent Felt to be Disrupting		
Not disrupting at all, or have no idea (N=85)	34	51
Slightly, quite, or very disrupting (N=85)	49	36

$\Phi = +.17$

Chi Square = 5.10 (significant at the 5% level)

TABLE 119

CORRELATION BETWEEN PREDICTED AND OBSERVED RELATIONSHIPS
FOR LENGTH OF TIME TAKEN TO GET USED TO COMPUTER AS
PREDICTED BY DOGMATISM AND ANXIETY IN COMBINATION

Predicted	Observed	
	Length of Time	
	Up to one month or not affected by computer (N=120)	More than one month up to not used to computer yet (N=50)
Length of Time		
Up to one month or not affected by computer (N=85)	52	33
More than one month up to not used to computer yet (N=85)	68	17

Phi = +.20

Chi Square = 6.80 (significant at the 1% level)

TABLE 120

CORRELATION BETWEEN PREDICTED AND OBSERVED RELATIONSHIPS
FOR FEELING ABOUT INSTALLATION OF COMPUTER AS PREDICTED
BY DOGMATISM AND ANXIETY IN COMBINATION

Predicted	Observed	
	Feeling about Computer	
	Liked very much (N=21)	Liked less or Disliked (N=149)
Feeling about Computer		
Liked very much (N=85)	9	76
Liked less or Disliked (N=85)	12	73

Phi = +.35

Chi Square = 20.40 (significant at the 1% level)