



Calhoun: The NPS Institutional Archive
DSpace Repository

Theses and Dissertations

Thesis and Dissertation Collection

1976-09

A study on the effectiveness of transactional analysis for improving organizational performance

Buckner, Daniel W.

Monterey, California. Naval Postgraduate School

<http://hdl.handle.net/10945/17966>

Downloaded from NPS Archive: Calhoun



Calhoun is a project of the Dudley Knox Library at NPS, furthering the precepts and goals of open government and government transparency. All information contained herein has been approved for release by the NPS Public Affairs Officer.

Dudley Knox Library / Naval Postgraduate School
411 Dyer Road / 1 University Circle
Monterey, California USA 93943

<http://www.nps.edu/library>

A STUDY ON THE EFFECTIVENESS
OF TRANSACTIONAL ANALYSIS FOR
IMPROVING ORGANIZATIONAL PERFORMANCE

Daniel W. Buckner

NAVAL POSTGRADUATE SCHOOL

Monterey, California



THESIS

A STUDY ON THE EFFECTIVENESS
OF TRANSACTIONAL ANALYSIS FOR
IMPROVING ORGANIZATIONAL PERFORMANCE

by

Daniel W. Buckner

September, 1976

Advisors

J. W. Creighton

J. C. Kiley

Approved for public release; distribution unlimited.

T175036

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE

READ INSTRUCTIONS
BEFORE COMPLETING FORM

1. REPORT NUMBER		2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) A STUDY ON THE EFFECTIVENESS OF TRANSACTIONAL ANALYSIS FOR IMPROVING ORGANIZATIONAL PERFORMANCE			5. TYPE OF REPORT & PERIOD COVERED Master's Thesis: September, 1976
7. AUTHOR(s) Daniel W. Buckner			6. PERFORMING ORG. REPORT NUMBER
9. PERFORMING ORGANIZATION NAME AND ADDRESS Naval Postgraduate School Monterey, CA 93940			8. CONTRACT OR GRANT NUMBER(s)
11. CONTROLLING OFFICE NAME AND ADDRESS Naval Postgraduate School Monterey, CA 93940			10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) Naval Postgraduate School Monterey, CA 93940			12. REPORT DATE September, 1976
			13. NUMBER OF PAGES 75
			15. SECURITY CLASS. (of this report) UNCLASSIFIED
			15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited			
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)			
18. SUPPLEMENTARY NOTES			
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Transactional Analysis Improving Organizational Performance Personnel Training Supervisory Training Basic Human Needs			
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This study investigates the effectiveness of Transactional Analysis used in personnel training by surveying two populations, one that had taken Transactional Analysis training, and one that had taken conventional training. Questionnaires were administered to the two populations. Responses were compared to determine if Transactional Analysis training resulted in greater awareness of basic human needs than did conventional training. Results			

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE(When Data Entered)

Abstract #20 (cont'd)

indicate no significant difference between the two.

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE(When Data Entered)

A STUDY ON THE EFFECTIVENESS
OF TRANSACTIONAL ANALYSIS FOR
IMPROVING ORGANIZATIONAL PERFORMANCE

by

Daniel W. Buckner
Naval Air Test Center, Patuxent River, Md.
B.S.E.E., University of Maryland, 1965

Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the

NAVAL POSTGRADUATE SCHOOL

September, 1976

ABSTRACT

This study investigates the effectiveness of Transactional Analysis used in personnel training by surveying two populations, one that had taken Transactional Analysis training, and one that had taken conventional training. Questionnaires were administered to the two populations. Responses were compared to determine if Transactional Analysis training resulted in greater awareness of basic human needs than did conventional training. Results indicate no significant difference between the two.

TABLE OF CONTENTS

I.	INTRODUCTION	6
	OBJECTIVE AND SCOPE OF THIS STUDY	7
II.	A DESCRIPTION OF TRANSACTIONAL ANALYSIS AND THE COMPARED TRAINING PROGRAMS.....	9
	DESCRIPTION OF CONVENTIONAL TRAINING USED AT NAVAL AIR TEST CENTER.....	11
	DESCRIPTION OF PROGRAM USED AT PACIFIC MISSILE TEST CENTER.....	13
III.	THE QUESTIONS AND THEIR RESULTS.....	15
	DESCRIPTION OF THE QUESTIONNAIRE.....	15
	RESPONSES TO ATTITUDINAL QUESTIONS.....	17
	RESPONSES TO DEMOGRAPHIC QUESTIONS.....	24
	ANALYSIS OF DATA.....	28
	APPENDIX A - QUESTIONNAIRE.....	32
	APPENDIX B - CHI-SQUARE CALCULATIONS.....	36
	APPENDIX C - POPULATION HISTOGRAMS.....	37
	APPENDIX D - HISTORICAL DATA BANK.....	69
	BIBLIOGRAPHY	73
	INITIAL DISTRIBUTION LIST.....	74

I. INTRODUCTION

Organizations are concerned with improving performance (Drucker, 1973). Empirical evidence supports the theory that awareness of basic human needs by management can improve performance of the organization (Maslow, 1970).

Further highlighting the importance of an understanding of the basic human needs for improved performance is a statement by Maslow, "When we talk about the needs of human beings we talk about the essence of their lives". Managers, then, must be concerned with basic human needs in order to improve performance.

Much work has been done on the study of basic human needs and the relationships of people working together, but no one system of describing and analyzing human behavior has proven completely successful. Management cannot wait until scientists and scholars have completed their work in this area. Management must try to make the organization perform today (Drucker, 1973).

A new system for understanding basic human behavior has been developed in recent years. This new system for explaining human behavior is called "Transactional Analysis" and was developed by the late Dr. Eric Berne.

OBJECTIVE AND SCOPE OF THIS STUDY

Supervisory and personnel training utilizing both conventional human needs concepts and Transactional analysis techniques have been given to employees in the Department of Defense. The purpose of this study is to compare the relative effectiveness of conventional training and Transactional Analysis for improving performance.

This study is based on the assumption that a greater awareness of basic human needs will lead to improved performance (Maslow, 1970). The study was conducted by use of a survey to determine whether Transactional Analysis, as used at the Pacific Missile Test Center, Point Mugu, California, contributed to a greater awareness of basic human needs than did conventional training, as used at the Naval Air Test Center, Patuxent River, Maryland.

To conduct this study, two populations suitable for the purpose of this investigation were first identified. A questionnaire was then developed and administered to the two populations. The responses were then compared using statistical analysis to determine if Transactional Analysis training resulted in a greater awareness of basic human needs than did conventional training.

The populations considered for use in this study were limited to employees at two Naval Air Systems Command field activities.

With the assistance of the Civilian Personnel Office at the Naval Air Test Center, Patuxent River, Maryland, a group

of personnel was identified who had received human needs training using conventional theories. At the Pacific Missile Test Center, Point Mugu, California, the Civilian Personnel Office helped identify a group of personnel who had received training using Transactional Analysis.

II. A DESCRIPTION OF TRANSACTIONAL ANALYSIS AND THE COMPARED TRAINING PROGRAMS

Transactional Analysis is based on the observations of Dr. Eric Berne, during his work as a psychotherapist in San Francisco, that each person demonstrates three very different forms of behavior. At times a person acts and feels like his parent or parent figure. When a person gestures, sounds, and carries himself very nearly as his parent figure did, Berne said that the person was in his Parent ego-state. At other times a person reasons objectively, processes data, solves problems, asks questions, and gives information essentially without feelings, rather like a computer. A person behaving in this manner is in his adult ego-state. At other times a person may think and feel as he did when he was a child, in this case he is in his Child ego-state. Berne used these three ego states to describe his analysis of human behavior. In this paper Parent, Adult, and Child when capitalized will refer to ego states and not to actual parents, adults, or children.

Berne observed that a person in the Parent mode directs himself at another Parent or at a Child. The Child directs himself at another Child or at a Parent. An Adult looks for another Adult. If the Parent is being critical then probably a rebellious or compliant Child will respond. If the Parent is being nurturing then probably a grateful, appreciative Child will respond. This pretty much goes the other way also:

a rebellious Child usually stimulating a critical Parent. The Adult, like a computer, must be turned on to activate. Internally, the Adult is a good mediator between Parent and Child. Externally, the Adult is a good problem solver, but lacks spontaneity (Berne, 1964).

An exchange of recognition between two persons is said to constitute a transaction. All transactions can be classified as either complementary, crossed or ulterior (James and Jongeward, 1971).

A complementary transaction occurs when a message sent from a specific ego state, gets the predicted response from a specific ego state in the other person. The following is an example of a complementary transaction:

Stimulus: Adult to Adult - Where are my cuff links?

Response: Adult to Adult - On the desk.

In this case the lines of communication are open, and the people can continue transacting with one another.

A crossed transaction occurs when an unexpected response is made to the stimulus. The following is an example of a crossed transaction:

Stimulus: Adult to Adult - Where are my cuff links?

Response: Parent to Child - Why don't you keep track of your cuff links?

In this case communications are broken off and the people will tend to withdraw from one another.

An ulterior transaction occurs when a stimulus is directed to one ego state, but is intended to hook another ego state.

The following is an example of an ulterior transaction:

Stimulus: Open - Adult to Adult - This car is our
finest, but it may be too expensive for you.
Hidden - Adult to Child - You probably can't
afford it.

Response: Adult to Adult - Yes, it is too expensive for
me.

Child to Adult - I'll take it.

In this example the hidden message is rejected if the
Adult responds, and it is accepted if the Child is hooked.

Berne also observed that people early in life very often
made decisions about their life position when there was much
confusion and insufficient data. These decisions such as
"I'm O.K. - You're Not O.K.", "I'm Not O.K. - You're O.K.",
which made sense to a very young child, provide the basis for
a life script. The person lives his life according to his
script in order to reinforce the life position he adopted
during childhood. Berne believed that in the proper atmos-
phere unfortunate early decisions could be reddecided in a
more favorable manner (Holloway and Holloway, 1973).

DESCRIPTION OF CONVENTIONAL TRAINING USED AT NAVAL AIR TEST CENTER

At the Naval Air Test Center each person queried had
attended at least one of the following courses:

- Basic Supervisory Development

The objectives of this course was to acquaint new

supervisors with the rudimentary skills of supervision. The instruction was principally by lecture and stressed leadership, communications, cooperation, and personnel functions.

- Supervision and Group Performance

This course was given to explain the human behavior involved in accomplishing a group project. After an introduction to human relations, the course was taught using a participative style where the students conducted group projects in order to experience first hand the interactions involved in a group effort.

- Supervision of the Low Skilled and Culturally Different

This course was intended to provide supervisors an awareness of other cultures besides their own. The course involved participation in which participants had to perform task from a disadvantaged position in order to get a feeling of what it was like to be disadvantaged.

These courses were classified as conventional training because they were based on the traditional theories of work, organizational design, and human needs. Frederick Taylor's study of work and Henri Fayol's organization design model provided part of the bases for the traditional training (Drucker, 1973). Maslow's "hierarchy of basic needs" was used to explain basic human needs in traditional training (Maslow, 1970).

DESCRIPTION OF PROGRAM USED AT PACIFIC MISSILE TEST CENTER

The Pacific Missile Test Center employees had each taken at least one of the following courses:

- Transactional Analysis Communications

The objective of this course was to provide an understanding of and an improvement in personal communications. The dynamics of communications were explained in terms of Transactional Analysis ego states. Exercises were conducted to enable the students to feel their various ego states, and to experience the use of the ego states in problem solving.

- Career Women Seminar

This seminar was intended to enable the participants to realize job satisfaction, and to make more effective contributions to their respective agencies. This seminar addressed questions such as "Who am I at work?", and "Do I want changes in my job or career?".

- Transactional Analysis and Your Career

This course was intended to assist the participants in applying Transactional Analysis to their current jobs and to expand their goals. The course provided the students an introduction to Transactional Analysis as it might be applied to unblocking their potential power to get their careers moving.

- Communication for Women

The objective of this course was to increase the participants' ability to communicate more effectively. The course included group discussions, films, and exercises to provide an opportunity for understanding and practicing effective communication skills.

These courses used Transactional Analysis as their base.

III. THE QUESTIONS AND THEIR RESULTS

An instrument was developed for use in measuring the employees' awareness and understanding of basic human needs. Demographic questions were also included in order to evaluate other factors that might influence the responses of the employees. The questionnaire was carefully worded to avoid the use of Transactional Analysis terminology which might cause a conditioned or triggered response on the part of the employees who had taken the Transactional Analysis training. The questionnaire was pretested by administering it to members of the Naval Aviation Executive Institute Management Program, Point Mugu, California. After pretesting and incorporating corrections, a total of 561 questionnaires were distributed at the Naval Air Test Center and the Pacific Missile Test Center. Appendix A contains a copy of the questionnaire and the cover letter.

Table 1 gives a breakdown of the number of returned questionnaires from the two bases.

DESCRIPTION OF THE QUESTIONNAIRE

Twelve questions contained in the questionnaire were designed to be answered by selection of one of five responses with numeric values as given on the following page.

TABLE 1
NUMBER OF RETURNS BY ORGANIZATION

Pacific Missile Test Center Point Mugu, California			Naval Air Test Center Patuxent River, Maryland			Combined		
Number Distri- buted	Number Returned (Usable)	Percentage Returned	Number Distri- buted	Number Returned (Usable)	Percentage Returned	Number Distri- buted	Number Returned (Usable)	Percentage Returned
263	184	70	298	172	57.7	561	356	63.5

<u>Response</u>	<u>Numeric Value</u>
Strongly Agree	1
Agree	2
No Opinion	3
Disagree	4
Strongly Disagree	5

To prevent the respondents from perceiving a pattern of desired answers, five of the questions were worded negatively (inverted) so that positive responses would be disagree or strongly disagree. To aid in analysis of the data, the responses for the inverted questions were recoded prior to the computer analysis so that disagree and strongly disagree were equated to agree and strongly agree. This recoding allowed all of the attitudinal data to be looked at with a uniform ranking scheme. Under this scheme, strongly agree and agree were taken as an indication of awareness and acceptance of the life position or human need addressed by the question.

RESPONSES TO ATTITUDINAL QUESTIONS

Questions 3, 9, and 11 were designed to measure the respondents' own perception of his personal O.K.-ness. None of these questions were inverted and respondents who felt a personal sense of O.K.-ness would tend to respond with an agree or strongly agree.

Question 3 - *"Generally, I feel confident of my supervisory abilities in the work situation."*

This question is based on the premise that a person holding an I'm O.K. life-position has faith in himself (Harris, 1967).

The frequency of response for each population is given below:

	<u>PMTC</u>	<u>NATC</u>
Strongly Agree	26	42
Agree	124	115
No Opinion	18	10
Disagree	10	4
Strongly Disagree	1	1
Missing	5	-

Question 9 - *"When in a supervisory role, I can adjust my attitudes towards employees as required for increased work performance."*

This question is founded on the belief that a person with an I'm O.K. life position has the flexibility to meet whatever situation comes up (James and Jongeward, 1971).

The responses of the populations to question 9 are given below:

	<u>PTMC</u>	<u>NATC</u>
Strongly Agree	18	25
Agree	119	127
No Opinion	33	12
Disagree	7	4
Strongly Disagree	1	2
Missing	6	2

Question 11 - *"I feel confident of my ability to handle inter-personal relations on the job."*

This question is based on the idea that a person with an I'm O.K. life-position feels capable of handling personal relationships.

The responses to this question are given below:

	<u>PMTC</u>	<u>NATC</u>
Strongly Agree	47	32
Agree	127	125
No Opinion	7	11
Disagree	3	4
Strongly Disagree	-	-

Questions 1, 8, and 10 were designed to measure the respondents' feelings about the O.K.-ness of others.

Question 1 - *"From my personal experience I have found that the concept taught in textbooks which states 'most employees are competent, capable persons' is incorrect."*

This question is inverted and respondents who felt that others are O.K. selected a disagree or strongly disagree answer.

The raw responses to this question are given below:

	<u>PMTC</u>	<u>NATC</u>
Strongly Agree	6	10
Agree	47	64
No Opinion	13	10
Disagree	98	71
Strongly Disagree	20	17

Question 8 - *"In my experience, I have found most employees are not capable of changing their work attitudes and habits to improve their work performance."*

This question reflects the view of persons who believe that others are not O.K. Respondents who felt that others are O.K. selected a strongly disagree or disagree answer to this question (Holloway and Holloway, 1973).

The raw responses to this question are given below:

	<u>PMTc</u>	<u>NATC</u>
Strongly Agree	5	3
Agree	33	27
No Opinion	7	8
Disagree	109	112
Strongly Disagree	30	22

Question 10 - *"Most employees can be trusted to perform and do a conscientious job when left on their own."*

This question is based on the theory that most people want to perform to the best of their abilities (James and Jongeward, 1967). Respondents who believed this theory selected an agree or strongly agree answer.

The responses to this question are given below:

	<u>PMTc</u>	<u>NATC</u>
Strongly Agree	20	17
Agree	138	123
No Opinion	3	3
Disagree	20	26
Strongly Disagree	2	2
Missing	1	1

Question 2 - *"I have found that for most employees the basic satisfaction of doing their work well eliminates the need for any additional recognition."*

This question is based on the theory that people have a basic need for recognition (Berne, 1964). Respondents who were aware of this need selected a disagree or strongly disagree response to this question.

The raw responses to this question are given below:

	<u>PMTC</u>	<u>NATC</u>
Strongly Agree	6	3
Agree	17	20
No Opinion	3	2
Disagree	85	82
Strongly Disagree	73	64
Missing	-	1

Question 4 - *"Employees have a definite need for emotional and physical stimulation to continue to be productive in the work situation."*

Question 4 is based on the fact that people have a biological, psychological, and social need for stimulation (Berne, 1964). An agree or strongly agree response was selected by respondents who were aware of this need.

The responses to this question are given below:

	<u>PMTC</u>	<u>NATC</u>
Strongly Agree	81	65
Agree	88	89
No Opinion	7	6
Disagree	4	8

	<u>PMTc</u>	<u>NATC</u>
Strongly Disagree	3	4
Missing	1	-

Question 5 - *"I disagree with the concept that employees will seek attention on the job, even if it be negative, rather than accept no recognition at all."*

This question is intended to measure the respondents' awareness of the fact that the need for recognition is so strong that people will even seek adverse recognition in the absence of positive recognition (Berne, 1964). Respondents who were aware of this fact selected a disagree or strongly disagree response to this question.

The raw responses to this question are given below:

	<u>PMTc</u>	<u>NATC</u>
Strongly Agree	12	11
Agree	63	69
No Opinion	18	14
Disagree	58	63
Strongly Disagree	30	15
Missing	3	-

Question 6 - *"Most employees have had their basic work attitudes and personalities established prior to entering the work force."*

Question 6 was included to test the respondents' awareness of childhood scripting. This theory is based on the hypothesis that most people live their lives according to

decisions that they made in early childhood (Holloway and Holloway, 1973).

The responses to this question are given below:

	<u>PMTc</u>	<u>NATC</u>
Strongly Agree	29	27
Agree	105	86
No Opinion	7	6
Disagree	38	46
Strongly Disagree	5	7

Question 7 - *"Most employees have a definite need for a structured daily work schedule."*

This question is based on the observation that people have a definite need to avoid boredom which results in a time structure-hunger (James and Jongeward, 1971). Awareness of time structure-hunger was reflected by selection of an agree or strongly agree response.

The responses to this question are given below:

	<u>PMTc</u>	<u>NATC</u>
Strongly Agree	9	29
Agree	109	95
No Opinion	10	8
Disagree	45	37
Strongly Disagree	11	2
Missing	-	1

Question 12 - *"In my experience I have not found the need for open and complete communications on the job to be as important as stated in textbooks."*

This question is used to measure the respondents' belief in the need for good communications on the job. The question is based on the assumption that business transactions cannot be completed in the absence of open communications (Berne, 1964). Respondents who believed in the need for good communications on the job selected a disagree or strongly disagree response to this question.

The raw responses to this question are given below:

	<u>PMTC</u>	<u>NATC</u>
Strongly Agree	6	9
Agree	14	15
No Opinion	5	8
Disagree	76	71
Strongly Disagree	83	68
Missing	-	1

Table 2 contains a summary of the responses from the two populations to the attitudinal questions. Many respondents indicated that question five was ambiguous. For this reason, the author decided not to use the responses to this question in calculating the average responses of the two populations.

RESPONSES TO DEMOGRAPHIC QUESTIONS

Questions 13 through 16 were included to gather demographic information from the respondents.

Question 13 - *"Please indicate the level of your formal education."*

1. High School
2. Associate of Arts degree or equivalent

BREAKDOWN OF RESPONSES FROM PMTC AND NATC

Question No. and Name	Population					
	PMTC			NATC		
	Percentage of Responses			Percentage of Responses		
	Agree	No Opinion	Disagree	Agree	No Opinion	Disagree
1. *You're O.K.-1	64.2	7.1	28.8	51.2	5.8	43.0
2. *Recognition Hunger	85.9	1.6	12.5	85.4	1.2	13.5
3. I'm O.K.-1	83.8	10.1	6.2	91.3	5.8	2.9
4. Stimulation Hunger	92.4	3.8	3.8	89.5	3.5	7.0
5. *Recognition Need Even Negative	48.6	9.9	41.4	45.3	8.1	46.5
6. Childhood Scripting	72.9	3.8	23.4	65.7	3.5	30.8
7. Time Structure Hunger	64.1	5.4	30.5	72.6	4.7	22.8
8. *You're O.K.-2	75.5	3.8	20.6	77.9	4.7	17.4
9. I'm O.K.-2	77.0	18.5	4.5	89.4	7.1	3.6
10. You're O.K.-3	86.3	1.6	12.0	81.9	1.8	16.4
11. I'm O.K.-3	94.6	3.8	1.6	91.3	6.4	2.3
12.*Need for Uncrossed Transactions	86.4	2.7	10.9	81.3	4.7	14.1
**Averages	80.3	6.4	14.1	79.8	4.4	15.8

*Recorded responses are used in this table.

**Responses to question 5 were not included in the averages.

3. More than two years college
4. Undergraduate degree
5. Graduate degree - Please state whether
graduate degree is at the Masters or Ph.D.
level _____

The responses to this question are given below:

<u>Group</u>	<u>PMTc</u>	<u>NATC</u>
1	82	96
2	22	20
3	21	9
4	28	26
5	26	21
Missing	5	-

Question 14 - "How long have you been in government?"

1. One year or less
2. Two or three years
3. Four or five years
4. Six to ten years
5. More than ten years

The responses to this question are given below:

<u>Group</u>	<u>PMTc</u>	<u>NATC</u>
1	-	-
2	22	18
3	12	20
4	48	53
5	97	81
Missing	5	-

Question 15 - "What is your Rank or Grade level?"

The responses to this question were ranked in interval order. The responses to this question are given below:

<u>Group</u>	<u>PMTC</u>	<u>NATC</u>
GS 2&3	5	-
GS 4&5	72	46
GS 6&7	26	28
GS 8&9	10	17
GS 10&11	23	30
GS 12&13	34	40
GS 14&15	6	6
Missing	8	5

Question 16 - "What is your age?"

1. Twenty-four or under
2. Twenty-five to twenty-nine
3. Thirty to thirty-nine
4. Forty to forty-nine
5. Over forty-nine

The responses to this question are given below:

<u>Group</u>	<u>PMTC</u>	<u>NATC</u>
1	9	11
2	31	41
3	47	59
4	44	32
5	48	29
Missing	5	-

ANALYSIS OF DATA

The statistical Chi-square test was used to compare the responses of the two populations. Application of this test determined if the responses from the two populations differed at the 0.05 level of statistical significance (95% confidence level). For each question where the populations differed at the 0.05 level of statistical significance, the results were then checked to see if the responses showed a meaningful difference.

Table 3 contains the results of the Chi-square test for the two populations' response to each question. At the 0.05 level of statistical significance the two populations differed on only two of the attitudinal questions, 3 and 7, and two of the demographic questions, 15 and 16.

The findings of the data from the attitudinal questions show that the two populations were statistically alike 83% of the time. It is interesting to note the similarity of the average responses of the two populations as shown in Table 2. PMTC had an average percentage of 80.3 agree responses, and NATC had an average percentage of 79.9 agree responses. On the disagree responses PMTC had an average percentage of 14.1, and NATC had an average percentage of 15.8. These results show that both populations had a good awareness and acceptance of the concepts of basic human needs.

Table 3 indicates that the two populations differed at the 0.05 level of statistical significance on grade level and age. Because the two populations showed essentially the same over

TABLE 3

COMPARISON OF POPULATIONS FROM PMTC AND NATC

Question No. & Name	χ^2 values resulting from comparison of responses from PMTC against NATC for each question *	**Degree of Freedom (No. of possible responses per question-1)	χ^2 value at which difference between PMTC and NATC are assumed at 95% confidence level	COMPARISON Populations are alike when χ^2 column 3 less than χ^2 column 5, differ when χ^2 for column 3 greater than column 5		
1	2	3	4	5***	6	7
1. Your're OK-1	8.56	4	9.49	****	ALIKE	DIFFERENT
2. Recognition	1.65	4	9.49	****		
3. I'm OK-1	8.79	4	9.49	****		
4. Stimulation	2.83	4	9.49	****		
5. Neg. Recognition	5.95	4	9.49	****		
6. Childhood Script	3.01	4	9.49	****		
7. Time Structure	18.21	4	9.49	****		****
8. You're OK-2	2.73	4	9.49	****		
9. I'm OK-2	12.29	4	9.49	****		****
10. You're OK-3	1.44	4	9.49	****		
11. I'm OK-3	3.55	3	7.82	****		
12. Uncrossed Trans.	2.40	4	9.49	****		

13.	Education Level	6.45	4	9.49	***
14.	Yrs Govt. Service	3.82	3	7.82	***
15.	GS Level	14.03	6	12.59	***
16.	Age	9.70	4	9.49	***

* The derivation of the χ^2 value is shown in Appendix B.

** Degree of freedom is the number of possible responses utilized minus one times the number of populations minus one. (No. of responses - 1) x (No. of populations - 1)

*** These values come from the Chi-square tables.

all response to the attitudinal questions, the differences between the two populations in these two demographic areas were not meaningful to this study.

APPENDIX A
QUESTIONNAIRE

This appendix contains an exact copy of the letter of introduction and questionnaire that was sent to 561 individuals at the Pacific Missile Test Center, Point Mugu, California and the Naval Air Test Center, Patuxent River, Maryland

NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA - 93940

IN REPLY REFER TO:

Code 55

0001-2

To Questionnaire Recipient:

This questionnaire has been sent to you in order to gather research data for a study on attitudes of employees located at a NAVAIR SYSCOM Field Activity. This study is part of a project being conducted through the Naval Postgraduate School, Monterey, California. The data is being analyzed by a member of the Naval Aviation Executive Institute Program located at Point Mugu, California.

Your answers will provide valuable and unique data for establishing a baseline on employee attitudes. Your personal identity and individual response will not be divulged. The questionnaires do not have to be signed. The success or failure of this research project will depend upon your response.

Please enter the most appropriate answer in the box at the right

From my personal experience I have found that the concept taught in text books which states "most employees are competent capable persons" is incorrect.

Strongly agree
Agree
No Opinion
Disagree
Strongly disagree
1 2 3 4 5

I have found that for most employees the basic satisfaction of doing their work well eliminates the need for any additional recognition.

1 2 3 4 5

Generally, I feel confident of my supervisory abilities in the work situation.

1 2 3 4 5

Employees have a definite need for emotional and physical stimulation to continue to be productive in the work situation.

1 2 3 4 5

I disagree with the concept that employees will seek attention on the job, even if it be negative, rather than accept no recognition at all.

1 2 3 4 5

Most employees have had their basic work attitudes and personalities established prior to entering the work force.

1 2 3 4 5

Most employees have a definite need for a structured daily work schedule.

1 2 3 4 5

In my experience, I have found most employees are not capable of changing their work attitudes and habits to improve their work performance.

1 2 3 4 5

When in a supervisory role I can adjust my attitudes toward employees as required for increased work performance.

1 2 3 4 5

Most employees can be trusted to perform and do a conscientious job when left on their own.

1 2 3 4 5

I feel confident of my ability to handle interpersonal relations on the job.

1 2 3 4 5

In my experience I have not found the need for open and complete communications on the job to be as important as stated in text books.

1 2 3 4 5

Please enter the most appropriate answer in the box at the right

Please indicate the level of your formal education.

1. High school /_/_/
2. Associate of Arts degree or equivalent /_/_/
3. More than two years college /_/_/
4. Undergraduate degree /_/_/
5. Graduate degree /_/_/ Please state whether graduate degree
is at the masters or Ph.D. level _____

How long have you been in government service?

1. One year or less /_/_/
2. Two or three years /_/_/
3. Four or Five years /_/_/
4. Six to ten years /_/_/
5. More than ten years /_/_/

What is your Rank or Grade level?

What is your age?

1. Twenty-four or under /_/_/
2. Twenty-five to twenty-nine /_/_/
3. Thirty to thirty-nine /_/_/
4. Forty to forty-nine /_/_/
5. Over Forty-nine /_/_/

APPENDIX B

CHI-SQUARE CALCULATIONS

The Chi-square values shown in table 3 were calculated as follows:

$$\chi^2 = \sum_{i=1}^r \sum_{j=1}^k \frac{(O_{i,j} - E_{i,j})^2}{E_{i,j}}$$

where

$O_{i,j}$ = observed number of responses assigned to the i^{th} row of the j^{th} column.

$E_{i,j}$ = number of responses expected to be assigned to the i^{th} row of the j^{th} column.

The expected values for each cell ($E_{i,j}$) were found by multiplying the column total times the row total, for each cell in the contingency table and dividing this product by the total number of responses.

The values of χ^2 resulting from the formula are distributed approximately as chi-square with $df = (r-1)(k-1)$, where r = the number of rows and k = the number of columns in the contingency table.

VAR006 CHILDHOOD SCRIPTING

```

CODE
1.00 ***** ( 29)
      I STRONGLY AGREE
      I
2.00 ***** ( 105)
      I AGREE
      I
3.00 ***** ( 7)
      I NO OPINION
      I
4.00 ***** ( 38)
      I DISAGREE
      I
5.00 ***** ( 5)
      I STRONGLY DISAGREE
      I
      I.....I.....I.....I.....I.....I.....I
      0 40 80 120 160 200
FREQUENCY
  
```

MEAN	2.375	STD ERR	.078	MEDIAN	2.100
MODE	2.000	STD DEV	1.064	VARIANCE	1.132
KURTOSIS	-.387	SKEWNESS	.793	RANGE	4.000
MINIMUM	1.000	MAXIMUM	5.000	SUM	437.000
C.V. PCT	44.795	.95 C.I.	2.220	TU	2.530

VALID CASES	184	MISSING CASES	0
-------------	-----	---------------	---

VAR007 TIME STRUCTURE HUNGER

CODE

```
1.00 *** ( 9)
I STRONGLY AGREE
2.00 ***** ( 109)
I AGREE
3.00 *** ( 10)
I NO OPINION
4.00 ***** ( 45)
I DISAGREE
5.00 *** ( 11)
I STRONGLY DISAGREE
I
I .....I.....I.....I.....I.....I
0 40 80 120 160 200
FREQUENCY
```

MEAN	2.674	STD ERR	.080	MEDIAN	2.261
MODE	2.000	STD DFV	1.082	VARIANCE	1.172
KURTOSIS	-.781	SKEWNESS	.726	RANGE	4.000
MINIMUM	1.000	MAXIMUM	5.000	SUM	492.000
C.V. PCT	40.483	.95 C.I.	2.516	TO	2.831

VALID CASES 144 MISSING CASES 0

VAR008 YOU ARE OK2

CODE

```

1.00 ***** ( 30)
I STRONGLY AGREE
I
2.00 ***** ( 109)
I AGREE
I
3.00 *** ( 7)
I NO OPINION
I
4.00 ***** ( 33)
I DISAGREE
I
5.00 ** ( 5)
I STRONGLY DISAGREE
I

```

```

I.....I.....I.....I.....I.....I
0 40 80 120 160 200
FREQUENCY

```

MEAN	2.315	STD ERR	.076	MEDIAN	2.069
MODE	2.000	STD DEV	1.034	VARIANCE	1.069
KURTOSIS	-.031	SKEWNESS	.917	RANGE	4.000
MINIMUM	1.000	MAXIMUM	5.000	SUM	426.000
C.V. PCT	44.668	.95 C.I.	2.165	T0	2.466

VALID CASES	184	MISSING CASES	0
-------------	-----	---------------	---

[illegible]

MEAN	2.180	STD FRR	.051	MEDIAN	2.097
MODE	2.000	STD DEV	.682	VARIANCE	.465
KURTOSIS	2.000	SKEWNESS	.941	RANGE	4.000
MINIMUM	1.000	MAXIMUM	5.000	SUM	388.000
C.V. PCT	31.272	.95 C.I.	2.079	TD	2.281
VALID CASES	178	MISSING CASES	6		

VAR010 YOU ARE OK3

三才

I ***** (20)
1.00
I STRONGLY AGREE

2.00 ***** (138)

3.00 ** (3)
NO OPINION

4.00 ***** (20)
I DISAGREE

5.00 ** (2) T STRONGLY DISAGREE

0 * (1)
(MISSING) I

[illegible]

MEAN	2.158	STD ERR	.059	MEDIAN	2.018
MODE	2.000	STD DEV	.800	VARIANCE	.640
KURTOSIS	2.375	SKEWNESS	1.518	RANGE	4.000
MINIMUM	1.000	MAXIMUM	5.000	SUM	395.000
C.V. PPT	37.051	.95 C.I.	2.042	TD	2.275

VALID CASES	1P3	MISSING CASES	1
-------------	-----	---------------	---


```

VAR016      AGE BY GROUP
CODE
1.00 ***** ( 9)
I -UNDER 24
I
2.00 ***** ( 31)
I -25- TO--29
I
3.00 ***** ( 47)
I -30-TO--39
I
4.00 ***** ( 44)
I -40-TO--49
I
5.00 ***** ( 48)
I -OVER--49
I
0 ***** ( 5)
(MISSING) I
I
I.....I.....I.....I.....I.....I
0 10 20 30 40 50
FREQUENCY

```

MEAN	3.508	STD ERR	.090	MEDIAN	3.557
MODE	5.000	STD DEV	1.201	VARIANCE	1.442
KURTOSIS	-.936	SKEWNESS	-.293	RANGE	4.000
MINIMUM	1.000	MAXIMUM	5.000	SUM	628.000
C.V. PCT	34.232	.95 C.I.	3.331	TO	3.686
VALID CASES	179	MISSING CASES	5		

VAR001 YOU ARE OK1
CODE

1. ***** (17)
I I STRONGLY AGREE
I
2. ***** (71)
I I AGREE
I

3. ***** (10)
I I NO OPINION
I

4. ***** (64)
I I DISAGREE
I

5. ***** (10)
I I STRONGLY DISAGREE
I

I.....I.....I.....I.....I.....I.....I
0 20 40 60 80 100
FREQUENCY

MEAN	2.878	STD ERR	.090	MEDIAN	2.472
MODE	2.000	STD DEV	1.186	VARIANCE	1.406
KURTOSIS	-1.340	SKENFSS	.089	RANGE	4.000
MINIMUM	1.000	MAXIMUM	5.000	SUM	495.000
C.V. PCT	41.203	.95 C.I.	2.699	T0	3.056

VALID CASES 172 MISSING CASES 0

VAR003 I AM OK1

ငါ့အတွက်

1
1.00 ***** (12)

I STRONGLY AGREE

2.00 ***** (15)

I AGHFE

3.00 ★★★★★ (10)

IDENTIFICATION

4.0000 (47)

DISAGREE

5.00

I STRONGLY DISAGREE

100 120 140 160 180 200

ADJUDICATION

MEAN	1.878	STD ERR	.050	MEDIAN	1.883
MODE	2.000	STD DEV	.660	VARIANCE	.435
KURTOSIS	3.735	SKEWNESS	1.115	RANGE	4.000
MINIMUM	1.000	MAXIMUM	5.000	SUM	323.000
C.V. PCT	35.133	.95 C.I.	1.779	TD	1.977

MODE	STN	DEV	VARIANCE
2.000	2.000	.660	.435

	KURTOSIS	SKENESS	1.115	RANGE	4.000
	3.735				

MINIMUM	MAXIMUM	SUM
1,000	5,000	323,000

C.V. pct	35.133	.95 C.I.	1.779	1.977

	VALID CASES	172	MISSING CASES	0
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				
51				
52				
53				
54				
55				
56				
57				
58				
59				
60				
61				
62				
63				
64				
65				
66				
67				
68				
69				
70				
71				
72				
73				
74				
75				
76				
77				
78				
79				
80				
81				
82				
83				
84				
85				
86				
87				
88				
89				
90				
91				
92				
93				
94				
95				
96				
97				
98				
99				
100				

VAR005 RECOGNITION NEED EVEN NEGATIVE

အပူကပ်

1

1.000 ***** (15)

I STRONGLY AGREE

I

2.00 ***** (63)

I AGHGA

1

3.00 ☆☆☆☆☆ (171)

THE OPINION

I

4.00 (69)

Y DTSAGREF

I

5.00 ★★★★★ (11)

I STRONGLY DISAGREE

1

1
 2
 3
 4
 5
 6
 7
 8
 9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21
 22
 23
 24
 25
 26
 27
 28
 29
 30
 31
 32
 33
 34
 35
 36
 37
 38
 39
 40
 41
 42
 43
 44
 45
 46
 47
 48
 49
 50
 51
 52
 53
 54
 55
 56
 57
 58
 59
 60
 61
 62
 63
 64
 65
 66
 67
 68
 69
 70
 71
 72
 73
 74
 75
 76
 77
 78
 79
 80
 81
 82
 83
 84
 85
 86
 87
 88
 89
 90
 91
 92
 93
 94
 95
 96
 97
 98
 99
 100
 101
 102
 103
 104
 105
 106
 107
 108
 109
 110
 111
 112
 113
 114
 115
 116
 117
 118
 119
 120
 121
 122
 123
 124
 125
 126
 127
 128
 129
 130
 131
 132
 133
 134
 135
 136
 137
 138
 139
 140
 141
 142
 143
 144
 145
 146
 147
 148
 149
 150
 151
 152
 153
 154
 155
 156
 157
 158
 159
 160
 161
 162
 163
 164
 165
 166
 167
 168
 169
 170
 171
 172
 173
 174
 175
 176
 177
 178
 179
 180
 181
 182
 183
 184
 185
 186
 187
 188
 189
 190
 191
 192
 193
 194
 195
 196
 197
 198
 199
 200
 201
 202
 203
 204
 205
 206
 207
 208
 209
 210
 211
 212
 213
 214
 215
 216
 217
 218
 219
 220
 221
 222
 223
 224
 225
 226
 227
 228
 229
 230
 231
 232
 233
 234
 235
 236
 237
 238
 239
 240
 241
 242
 243
 244
 245
 246
 247
 248
 249
 250
 251
 252
 253
 254
 255
 256
 257
 258
 259
 260
 261
 262
 263
 264
 265
 266
 267
 268
 269
 270
 271
 272
 273
 274
 275
 276
 277
 278
 279
 280
 281
 282
 283
 284
 285
 286
 287
 288
 289
 290
 291
 292
 293
 294
 295
 296
 297
 298
 299
 300
 301
 302
 303
 304
 305
 306
 307
 308
 309
 310
 311
 312
 313
 314
 315
 316
 317
 318
 319
 320
 321
 322
 323
 324
 325
 326
 327
 328
 329
 330
 331
 332
 333
 334
 335
 336
 337
 338
 339
 340
 341
 342
 343
 344
 345
 346
 347
 348
 349
 350
 351
 352
 353
 354
 355
 356
 357
 358
 359
 360
 361
 362
 363
 364
 365
 366
 367
 368
 369
 370
 371
 372
 373
 374
 375
 376
 377
 378
 379
 380
 381
 382
 383
 384
 385
 386
 387
 388
 389
 390
 391
 392
 393
 394
 395
 396
 397
 398
 399
 400
 401
 402
 403
 404
 405
 406
 407
 408
 409
 410
 411
 412
 413
 414
 415
 416
 417
 418
 419
 420
 421
 422
 423
 424
 425
 426
 427
 428
 429
 430
 431
 432
 433
 434
 435
 436
 437
 438
 439
 440
 441
 442
 443
 444
 445
 446
 447
 448
 449
 450
 451
 452
 453
 454
 455
 456
 457
 458
 459
 460
 461
 462
 463
 464
 465
 466
 467
 468
 469
 470
 471
 472
 473
 474
 475
 476
 477
 478
 479
 480
 481
 482
 483
 484
 485
 486
 487
 488
 489
 490
 491
 492
 493
 494
 495
 496
 497
 498
 499
 500
 501
 502
 503
 504
 505
 506
 507
 508
 509
 510
 511
 512
 513
 514
 515
 516
 517
 518
 519
 520
 521
 522
 523
 524
 525

0 20

FREQUENCY

MEAN	2.988	STD ERR	.090	MEDIAN	3.071
MODE	4.000	STD DEV	1.175	VARIANCE	1.380
KURTOSIS	-1.310	SKEWNESS	-.064	RANGE	4.000
MINIMUM	1.000	MAXIMUM	5.000	SUM	514.000
C.V. PCT	39.310	.95 C.I.	2.812	TOTAL	3.165

MODE	4.000	STD DEV	1.175	VARIANCE	1.380
MODE	4.000	STD DEV	1.175	VARIANCE	1.380

KURTOSIS	-1.310	SKEWNESS	-.064	RANGE	4.000
----------	--------	----------	-------	-------	-------

	MINIMUM	MAXIMUM	SUM
1.000	1.000	5.000	514.000

C.V. PCT			
39.310	.95 C.I.	2.812	3.165
			TD

	VALID CASES	MISSING CASES	0
1	172	172	0

VAR006 CHILDHOOD SCRIPTING

306

1.00 ***** (27)

I STRONGLY AGREE

I

2.00.2

I AGREE



3.000 ★★★★★ (6)

NOTATION

—

I DISAGREE

—

5.00 ★★★★★ (7)

Y STRONGLY DISAGREE

1

I.....I.....I.....I.....I.....	20	40	60	80	100
I.....I.....I.....I.....I.....	20	40	60	80	100

c

FREQUENCY

MEAN	2.535	STD ERR	.089	MEDIAN	2.186
MODE	2.000	STD DEV	1.162	VARIANCE	1.350
KURTOSIS	-.973	SKEWNESS	.521	RANGE	4.000
MINIMUM	1.000	MAXIMUM	5.000	SUM	436.000
C.V. PCT	45.830	.95 C.I.	2.360	TOTAL	2.710

MODE	2.000	STD DEV
------	-------	---------

KURTOSIS - .973

MINIMUM	MAXIMUM
1.000	1.000

C.V. - PCT 45-820 95 C T

	VALID CASES	172	MISSING CASES	0
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				
51				
52				
53				
54				
55				
56				
57				
58				
59				
60				
61				
62				
63				
64				
65				
66				
67				
68				
69				
70				
71				
72				
73				
74				
75				
76				
77				
78				
79				
80				
81				
82				
83				
84				
85				
86				
87				
88				
89				
90				
91				
92				
93				
94				
95				
96				
97				
98				
99				
100				

VAR008 YOU ARE OK2

CODE

1.00 ***** (22)
I STRONGLY AGREE

2.00 ***** (112)
I AGREE

3.00 *** (8)
I NO OPINION

4.00 ***** (27)
I DISAGREE

5.00 ** (3)
I STRONGLY DISAGREE

I.....I.....I.....I.....I.....I.....I
0 40 80 120 160 200
FREQUENCY

MEAN	2.285	STD ERR	.072	MEDIAN	2.071
MODE	2.000	STD DEV	.940	VARIANCE	.883
KURTOSIS	.464	SKEWNESS	1.059	RANGE	4.000
MINIMUM	1.000	MAXIMUM	5.000	SUM	393.000
C.V. PCT	41.132	.95 C.I.	2.143	T0	2.426

VALID CASES	172	MISSING CASES	0
-------------	-----	---------------	---

VAR013 EDUCATION LEVEL

3007

[illegible]

MEAN	2.163	STD ERR	.116	MEDIAN	1.396
MODE	1.000	STD DEV	1.517	VARIANCE	2.301
KURTOSIS	-.959	SKEWNESS	.832	RANGE	4.000
MINIMUM	1.000	MAXIMUM	5.000	SUM	372.000
C.V. PCT	70.134	.95 C.I.	1.934	TD	2.391

	VALID CASES	172	MISSING CASES	0
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				
51				
52				
53				
54				
55				
56				
57				
58				
59				
60				
61				
62				
63				
64				
65				
66				
67				
68				
69				
70				
71				
72				
73				
74				
75				
76				
77				
78				
79				
80				
81				
82				
83				
84				
85				
86				
87				
88				
89				
90				
91				
92				
93				
94				
95				
96				
97				
98				
99				
100				

VARIOUS GS LEVEL BY GROUP

3000

1 2.00 463

Y GS-U-ANP S

3.00 ***** (28)

GS-6-AND-7

4.00 (17)

I GS-R-AND-9

5.00 (30)

I 65-10--AND-11

9. 00. 00

I GS-12-AND--13

7.00 ***** (6)

I GS-14-AND--15

★★★ (5)

(MISSING)

I.....I.....I.....I.....
10 20 30 40 50
FREQUENCY

А. И. АНДРУХОВ

MEAN	4.048	STD ERR	.128	MEDIAN	4.059
MODE	2.000	STD DEV	1.657	VARIANCE	2.745
KURTOSIS	-1.468	SKEWNESS	.067	RANGE	5.000
MINIMUM	2.000	MAXIMUM	7.000	SUM	676.000
C.V. PCT	40.928	.95 C.I.	3.795	TO	4.301

2.000 FUDK

KURTOSIS -1.468
SKEDINESS

	MINIMUM	MAXIMUM
2.000		

C.V.	PCT
40.92A	.95 C.I.

VAL. IN CASES

MISSING CASES

APPENDIX D

Historical Data Bank

Statistical data bank is contained in this appendix for both populations. Populations are identified by the last integer of each line. The integer 1, corresponds with Pacific Missile Test Center, and the integer 2, corresponds with Naval Air Test Center.

45115245421512231
4422234422242021
15211545211314221
22324144311414251
44212421241542221
41315124321424221
2411324422255631
25211244222524231
1501444021512231
55152255112524241
55412144421554631
45223444213514221
44214425222414321
41215424121515331
44214222321514221
24224224222455641
25021444021542211
34223224222414151
243232242242355741
24222424222415351
25212222221414221
22212424141455631
24222244321555641
25112425111435331
54112224121555551
45215222222525251
54122244211445751
55215124222512231
44212224321413251
45214324222555751
44222424222414141
44224422222415551
25312124221412211
24224525322514221
54113424111545451
42222234323415531

42223224222435541
22324222322312231
44224424222414221
2441322324415231
34352225222445541
24225424222532221
25214224222515441
24422131342245651
15215212242253231
45224254322413221
1422224221455641
45415135322514421
45212125222535351
34214444202435441
44124424242555651
25323223322515231
45115212121544631
24224224222455651
54224125222545631
44222424221435251
23222145322413111
25214222222114121
45212224222515251
25215245222535541
4422224222415351
24112122221422421
45213224222554431
44322243222412221
45515524121435541
4522424222554631
34211445522444531
45314243322313241
4422242222544531
5224224422455751
44010124022515251
4431422222213211

45322242322514241
24215425222454531
25222324111512221
44225145121512231
45115124121544331
4422422422213221
34324444222414331
45114155122535631
44352221122414131
55115324122535541
44121224212555531
45212152222415241
45222152222525351
22222242222214221
4522222442245651
24213114242515251
45205222242515251
22212242221455641
44225444322554631
44224224222425641
43424224242355641
53214235211442321
35242444323214231
42212124222515341
34221234221544631
21244225232414321
44434424242535631
44110424221545251
5422422422240001
45224122222115341
422323222225551
1441122513310001
4421442222512211
45015424311514031
35225424222555351
5422423422340001

42222224222515251
45222254212524551
24224224222415541
44224244222524521
55225345222535231
34222224222535441
25215244244455641
45324114223415221
22233224222414231
54114245212545551
45114225211515351
54134355312555741
45214224222425541
4422442222225341
24214445221533221
44214224221545651
45212222222515341
44224454222413221
4422222342135551
45212224222525421
45122124121445051
55222244421455741
350131420222534451
4141242222215341
45233243222414221
22222222224215241
54224224212415251
54124244221455631
24225224222445651
24422224342512211
24222224022235351
45224224242542351
45115422222415451
55225423322425241
45214254212515331

44212124251515251
44224243222415241
24224255242524221
24223244222445651
45212224222422631
45242124222115341
4522222422250001
24224244222425641
4121412434114341
44223232212535431
4522212422240001
45324444322515341
44224224222515041
22232241251522211
45215224222512241
45214425222412221
32212214322415251
45215222242435641
35224224022514531
42223152222254641
45411515312415251
42124424221434211
25215222222515251
45115114211515331
14211524222414231
44232424222445641
4412323422245351
45225224323425631
44222234322445631
45121245222542231
24112214121444641
54214245141235251
44215234222415231
35311224322514221
45311211321414221
44223224222514231

2421242422254561
21322224322422251
44220245221443541
24212224432453551
44212224222412422
22112142211314212
25214214222112232
24424224312513222
24222424322414222
2222242224245632
32232142252314232
23323223433215332
44224222242443532
45314345222513322
45214224222415232
24212445222424332
24221544221515532
2525222222434322
24124444241445242
45215212242255542
25224444222554742
45211225222515642
35222224222415222
55215214523515442
45124242222544622
25124215122115552
55214424222514322
44214224242525232
44215424222545632
22222224242415242
55114443211415352
22324234311412212
44224244222425652
54222124222415332
45112215221542222
24114444221455552

244342444344424322
45321424121532222
44224234222544622
25222241222525032
44224224222413222
24114425212523242
24122122222415542
45321444222512212
54112155111444032
52212224222525252
2412224222414422
45224214122115652
54214412242413212
44212133132523212
54125212252124352
35424434243444632
4422424222455332
22152425111514222
52111241225143222
44222124122114222
22212144223414222
44224124222214232
2422222222444622
1422442424414642
24222224242555632
45212234222542512
44212142322454632
24222324222523212
25121424123515242
44222224222412532
45112544121515342
44342224222315652
45214242222544522
44122344221432532
24221425222535542
24222424223214422

14125224121515542
44222224022415252
45215415122514332
25244342222215232
25234444221214242
25112214112213212
44223224222424532
45214114222512232
25155545141555632
24122243222425652
34223242222443632
44222422223454632
44222442222415532
24214114142415342
44213224212425532
45114144221545632
42252225222215232
452122242222554752
42224224222225432
15112424122255632
45132424221513222
55122225444415452
44223544223544642
34114224122413322
44224444222453622
15215214242555642
24224224222312532
30223224222413222
23222422211245642
15112442222215332
14312214221525552
25512122222512212
24224223222414222
44222224222015442
24212244242415542
14212214242412232

24225325322515322
24224224222115752
45114114222534432
55315224321314322
44224224322415332
2522122323212522
35114224222435742
31233532241215032
44214525224515342
44122424111515342
25212124222514212
2411322322234222
45224222242413422
21345521322514222
22214204022214222
55115115211514552
44214424222455642
24244424222415552
44124114222412632
15225114212545632
44224222222414242
24213224221155622
45221115212533222
24222424222415252
44224212222415442
54224445122515542
42122424122415532
55211244522515342
45224454222454632
4212224242215432
25114224141512222
15214211143523632
44222224222445632
45112124121515552
4524224212515552
542432142222514022

25214434221554632
54112225121525552
24224424223153632
34123434212444522
25212124222524422
45222214242514332
15112224211455732
25212115222524322
44222222342115352
34224123232545632
42243424222415652
41121213221413222
24114244222554732
24222224242425542
25324425121515432
24224244222314552
42224214242415442
22243424222415552
45214212222415442
22215425421535332
22222214222312212
44224244322415252
45224424202444632
55211424222544632
44232124242435642
4522444222553032
25213424222514352
4422224222415352
44224324222444632
4422224222445652
25225224222545652
2222222422244432

BIBLIOGRAPHY

- Berne, E., The Structure and Dynamics of Organizations and Groups, J. B. Lippincott Company, New York, 1963.
- Berne, E., Games People Play, p. 13-15, 29-30, and 58, Grove Press, Inc., New York, 1964.
- Berne, E., What Do You Do After You Say Hello?, p. 11-21, Grove Press, Inc., New York, 1972.
- Drucker, P. F., Management: Tasks, Responsibilities, Practices, p. 24, 181, 200-202, 456, and 520-523, Harper & Row, Publishers, New York, 1973.
- Harris, T.A., I'm O.K. - You're O.K., p. 33-37, 74-77, Harper & Row Publishers, Inc., New York, 1967.
- Holloway, H. W. and Holloway, M. M., Change Now!, p. 16-22, Midwest Institute For Human Understanding, Medina, Ohio, 1973.
- Isacc, S., and Michael, W. B., Handbook in Research and Evaluation, p. 58, Edits Publishers, San Diego, 1971.
- James, M. and Jongeward, D., Born To Win, p. 1-3, 56-59, and 265, Addison-Wesley Publishing Company, Menlo Park, California, 1971.
- Kress, G., The Business Research Process, I Candid Publications, Fort Collins, Colorado, 1974.
- Maslow, A. H., Motivation and Personality, 2nd Ed., p. xii, 35-58, Harper & Rox, Publishers, Inc., New York, 1970.
- Nie, N. H., Statistical Package For The Social Sciences, 2nd Ed., McGraw-Hill Book Company, New York, 1970.

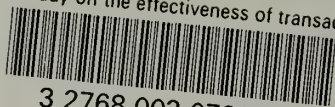
INITIAL DISTRIBUTION LIST

	No. Copies
1. Defense Documentation Center Cameron Station Alexandria, Virginia 22314	2
2. Library, Code 0212 Naval Postgraduate School Monterey, California 93940	2
3. Chairman, Department of Administrative Sciences Code 54 Naval Postgraduate School Monterey, California 93940	2
4. Naval Air Systems Command Naval Aviation Executive Institute Washington, D.C. 20361	4
5. Professor J. W. Creighton Code 540f Department of Administrative Sciences Naval Postgraduate School Monterey, California 93940	1
6. Professor J. C. Kiley 1026 Bronco Rd. Pebble Beach, California 93953	1
7. Ms. S. M. Coray Code 0222 Career Development Division Pacific Missile Test Center Point Mugu, California 93042	1
8. Mr. E. Stokel Employee Development Division Civilian Personnel Division Naval Air Test Center Patuxent River, Maryland 20670	1
9. Mr. K. L. Wilkinson AT02 Naval Air Test Center Patuxent River, Maryland 20670	1

- | | | |
|-----|--------------------------------|---|
| 10. | Mr. D. W. Buckner | 1 |
| | P. O. Box 328 | |
| | Lexington Park, Maryland 20653 | |
| 11. | Mr. L. Trettin | 1 |
| | 1293 Buena Vista | |
| | Ventura, California 93001 | |

thes8832

A study on the effectiveness of transact



3 2768 002 07888 3

DUDLEY KNOX LIBRARY