

AN ANALYSIS OF MANAGERIAL CHARACTERISTICS OF  
FIRST LEVEL SUPERVISORS IN A TYPICAL  
CABLE TELEVISION ORGANIZATION

By

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//

Bachelor of Science

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1973

Submitted to the Faculty of the Graduate College  
of the Oklahoma State University  
in partial fulfillment of the requirements  
for the Degree of  
MASTER OF SCIENCE  
December, 1975

Thesis  
1975  
P635a  
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Thesis Approved:



Thesis Adviser



Dean of the Graduate College

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#### ACKNOWLEDGEMENTS

The author wishes to express appreciation to his major adviser, Dr. Donald S. Phillips, and to Dr. Richard W. Tinnell for their guidance and assistance throughout the study.

Special thanks is extended to all the people of the United Cable Television Corporation who supported and participated in the study.

Appreciation must also be expressed to my wife, Deborah, for her encouragement.

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## CHAPTER I

### INTRODUCTION

#### Nature of the Problem

The cable television industry grew from the need for a service providing television signals to persons in areas of poor reception. Because the requirement had no parallel, there were no other industries that could readily adapt to this need, resulting in the development of unique equipment, methods and terminology suited particularly to the CATV (Community Antenna Television) industry.

The inherent nature of this service-oriented industry dictates that its technical backbone will require the largest percentage of the work force at the system level. The supervisor of this work force, generally entitled chief engineer or chief technician depending on system size, must be a man thoroughly familiar with the CATV industry. He is generally the man in the system with the most CATV experience. Promotion through the lower technical ranks is the route most commonly taken to arrive at the position of chief engineer or chief technician.

United Cable Television Corporation (UCTC) is franchised by 32 municipalities or cities to operate cable television systems within their boundaries. These systems are located throughout the continental United States and for corporate purposes are divided into the Eastern and Western Regions roughly by the longitudinal meridian passing through Tulsa, Oklahoma, the corporate headquarters. The systems are operated



as separate entities with the corporate office providing accounting, managerial and engineering assistance to those counterparts at the system level.

Because of the specific nature of the equipment involved, cable television technicians that advance to a level of supervision above other technicians do so based primarily on their technical ability gained through experience. Because there is such a shortage of technically qualified men to fill first level supervisory positions, their managerial training and qualifications too often have little bearing on the promotional decision. It is to the advantage of the company, the supervisor, the men under him and the customer if supervisory training complements technical training. This study is needed to determine managerial training needs of UCTC supervisory personnel.

#### Purpose of the Study

The purpose of this research will be to establish the level of managerial capacity of the front line supervisors of a typical cable television company from which recommendations may be made concerning a training program to give front line supervisors greater capacity to handle people.

#### Objectives

The objectives of this study are:

1. Determine if the employee had previous managerial training before or after employment with UCTC.

2. Determine individual and average number of correct responses on a multiple choice test derived from first-level supervision material.
3. Determine if the employee would desire further training in supervisory areas.

## CHAPTER II

### REVIEW OF LITERATURE

#### Identification of the Need

There has been little effort toward the specification of job titles and qualifications for those first responsible for technical areas at the local system level. Generally it is concluded that they will be responsible for direction of the efforts of their subordinate technical staff.

#### Results of Previous Research

Work done by Roth (9) for the Office of Telecommunications indicated that the System Facility Engineer "will know all technical configurations of a system and be able to maintain it and to direct others in various chores"(p. 12) and that the Chief Technician, often a synonymous term of the previous, is "responsible for controlling all the activities of the engineering staff of the system" (p. 12). The major effort of the Roth work was in defining the duties and educational requirements of the various CATV posts and not in the measurement of managerial and technical proficiency. The United Cable Television Corporation (formerly LVO Cable) states in its policy manual (5): "The chief technician has full responsibility for the technical operation of the system within the scope of basic policies, including supervision of plant personnel" (Policy No. 2051.4).

The importance of good supervision has been recognized in generally all industries. Johnson, Kast and Rosenwig (2) indicate that "the motivation of individuals and the measurement of their performance becomes a subjective judgment performed by the supervisor" (p. 86). Gilmer (1) states that the first level supervisor "is the pivotal factor in human relations" (p. 343). The need for highly satisfied and motivated people (as a direct result of good first level supervision) becomes apparent when a statement by Tom Straw (10) is considered in its full depth: "To the customer, the installer and technician are the CATV company" (p. 891). The attitudes of these men who serve the CATV customer are largely determined by their supervision. These observations are further documented elsewhere with realizations that improved relations among employees result in savings for the organization and society.

White (11) has said that there is no standardized method of measurement to determine the level of supervisory capacity in an individual. The Kirkpatrick (3) instrument is widely used, but as a teaching rather than a measuring instrument. The lack of a standard instrument made it necessary for an instrument to be developed to provide the needed data for this study.

Parker, Kleemier and Parker (6) summed it up by stating that technical knowledge is not enough for a supervisor for the entire industry. To advance a man to a supervisory position based on technical ability alone, as is so often the case in the CATV industry, would seem to be in direct support of the Peter Principle (7).

### Summary

A review of literature establishes that:

1. Persons employed at the chief technician level for United Cable Television and in the CATV industry in general are in supervisory positions.
2. The organization may have great influence over the attitudes of lower level workers through the efforts of first level supervisors or may profit by striving to improve them.
3. While there are efforts underway for education in the CATV industry, they are primarily technical in nature and do not deal with supervisory or managerial areas.
4. There is a need for work in the area of the supervisory capability of the men currently occupying first-level supervisory positions to determine the current level of the knowledge of rudimentary supervisory principles and to make recommendations utilizing the results of the work.

## CHAPTER III

### METHODOLOGY

#### Assumptions

The assumption that the Eastern Region is representative of the United Cable Television Corporation and that the most advanced newly installed systems lying in the top fifty markets will be excluded from the research should allow accurate and repeatable results.

#### Development of the Instrument

The chief technicians of the systems contained in the Eastern Region of the United Cable Television Corporation were given a multiple choice examination consisting of 25 straightforward questions composed from explicit points presented in first level supervision textbooks and other works relating to first level supervision. The chief technicians examined represented all systems, other than those determined to be in the top fifty markets, in the Eastern Region as defined by UCTC, encompassing 14 systems with 11 supervisors serving 77,000 customers.

In addition to the 25 questions pertaining to the fundamentals of management, questions were included to determine if the employee had received supervisory training from United Cable Television Corporation or another company and if he recognized the need for

and/or had the desire for additional supervisory training. An open-ended question was also included for any comments the employee cared to make.

The multiple choice method was chosen for the instrument rather than the agree/disagree method used in the Kirkpatrick (3) instrument.

The instrument used to gather the data was validated by the opinion of two outside experts that a supervisor should answer correctly 60 per cent of the questions asked on the multiple choice tests. The president of a management consulting firm and a professor with a background of industrial personnel management and college teaching are the experts whose opinions validated the instrument.

#### Collection of the Data

The number of correct responses to each question was plotted and expressed as percentage. To show that there was no geographic influence the state in which the system lies was recorded, but the name of the system did not appear, nor did the name of the person taking the examination. This was done in order to encourage honesty in answering the last question. States in which only one United Cable Television Corporation system lies were included with adjacent states.

In recognition of the need of cooperation from top management to insure full compliance and honest results, the examinations were sent to the manager of each system with an explanation of its purpose in a cover letter signed by the Eastern Regional Manager and the Vice President of Operations for UCTC. This letter asked that the

managers administer the examination with no time limit and that they see that the first level supervisor took it without previous knowledge of the test and without outside aid. The letter established clearly that the information was for research purposes only (see Appendix B).

#### Limitations

The major market system in the top 50 markets of the United States that require more formal education for their technical people of responsibility were excluded from this study.



## CHAPTER IV

### RESULTS

#### Results and Analysis of the Data

The scores, as shown in Table I, show a mean score of 64.72 with two of 11 scores below 60 per cent, leaving 18.18 per cent of the subjects tested failing to meet the expectations. Table I, Figures 1 and 2, show the distribution of scores. These data show that the entire group of Eastern Region United Cable Television Corporation supervisors is in need of additional supervisory training as evidenced by the low scores and lack of an upper skirt to the distribution curve.

The mean score of 64.72 shows that the level of supervisory knowledge is low throughout the chief technicians of the Eastern Region of United Cable Television. On the average between one and two more questions were answered correctly than the minimum acceptable level called for on the 25-question test. An examination of correct responses per question shown in Table II shows that all 11 subjects answered correctly questions 13, 14, 23 and 25. These questions perhaps fall into the area where experience leads the way to the correct answer, or the area where common sense dictates the correct answer, and should perhaps be rewritten. All subjects failed to answer correctly question 17 dealing with a noted theory found in most formal supervisory material.

TABLE I  
SCORES BY STATES

Scores	States		
	Illinois	Texas Louisiana	Missouri Maryland Michigan
	76	72	44
	72	48	68
	68	64	
	60	64	
	76		
Mean:	64.72		

TABLE II  
CORRECT RESPONSES PER QUESTION

Question	Correct Responses
1	9
2	7
3	5
4	10
5	9
6	6
7	8

TABLE II (Continued)

---

Question	Correct Responses
8	10
9	7
10	7
11	1
12	8
13	11
14	11
15	8
16	8
17	0
18	5
19	3
20	10
21	2
22	4
23	11
24	7
25	11

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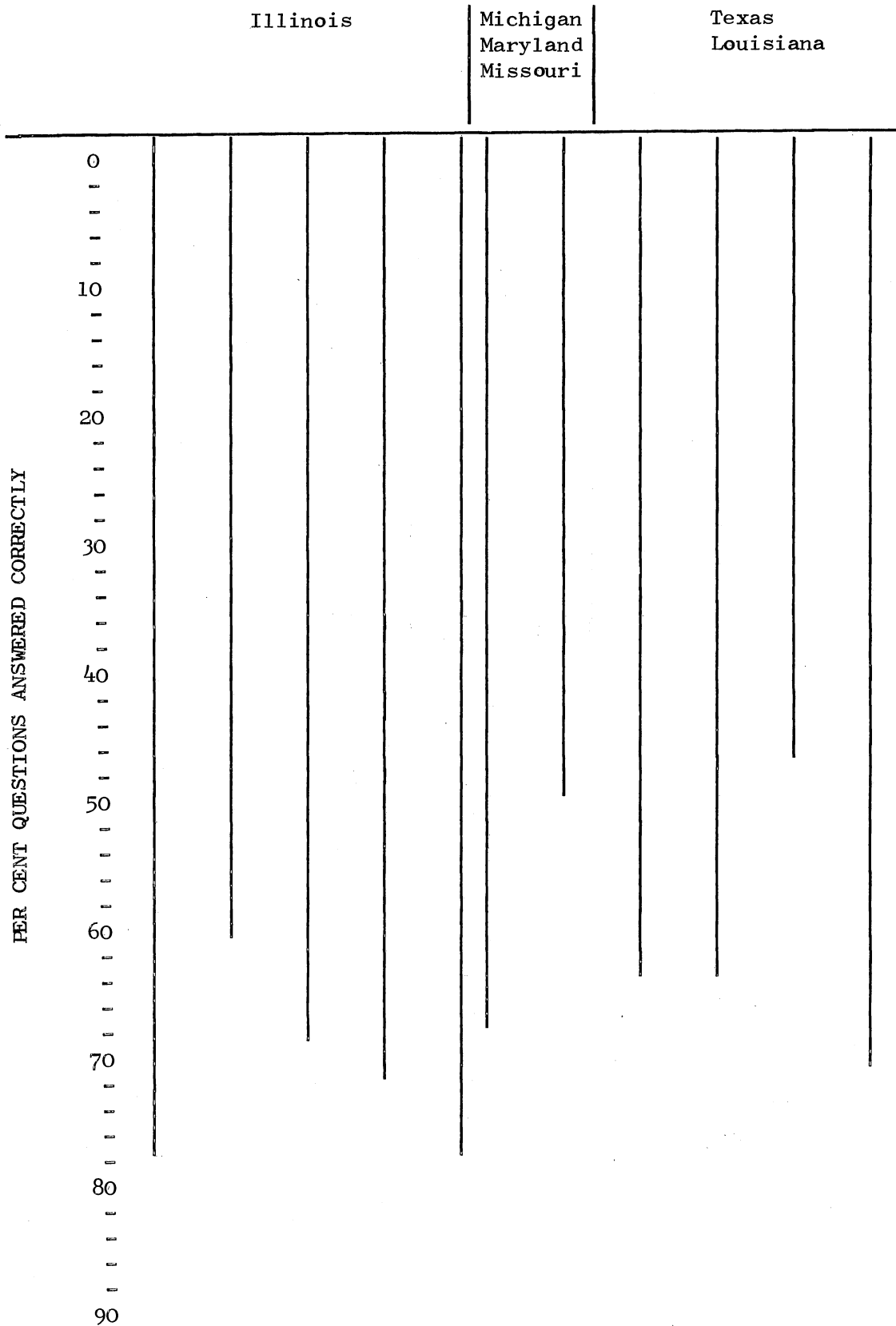


Figure 1. Per Cent of Correct Responses by States

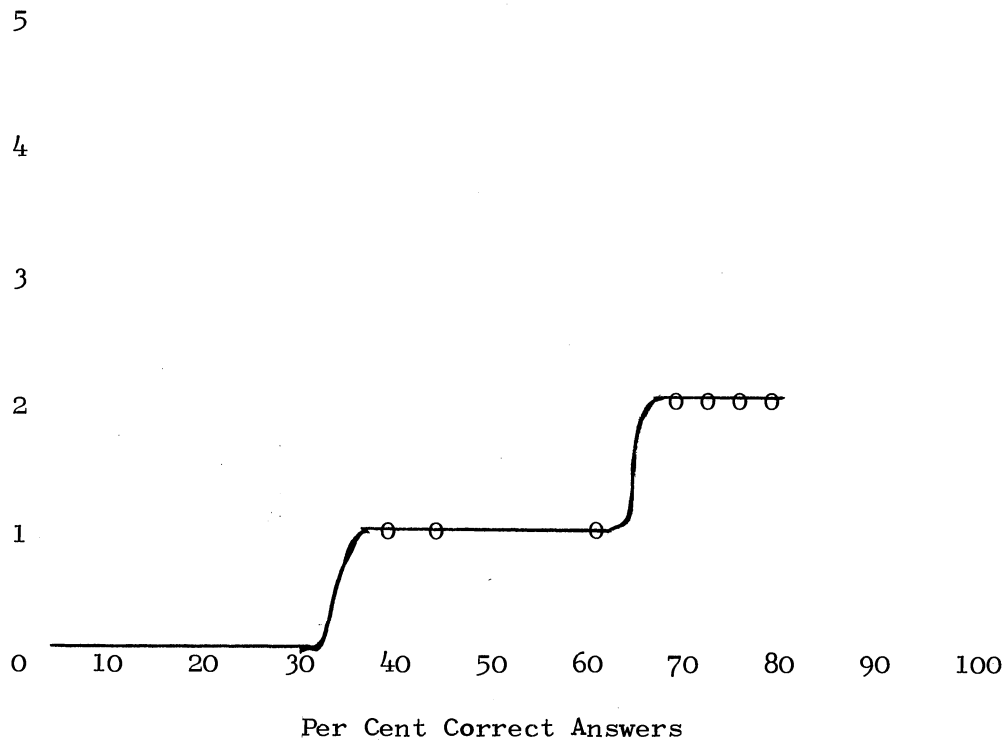
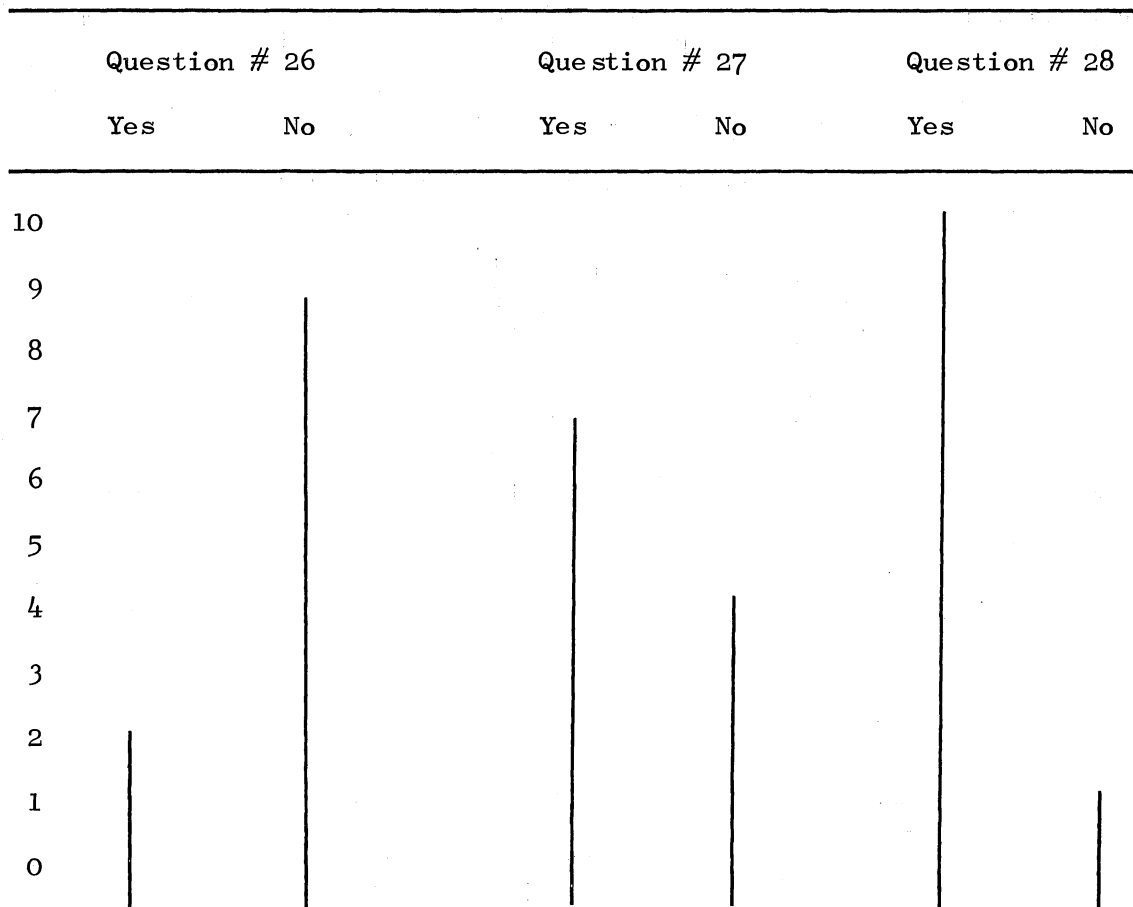


Figure 2. Scores Distribution

Only two subjects replied that they have received training in the area of supervision or management from United Cable Television, and both indicated that the training came from the day-to-day job routine rather than by formal means. Ten subjects indicated they would desire further training to question 28. These results are shown in Table III.

The comments resulting from the open-ended question centered around the need for additional technical and supervisory training.

TABLE III  
RESPONSES TO QUESTIONS 26, 27, 28



## CHAPTER V

### CONCLUSIONS AND RECOMMENDATIONS

#### Conclusions

The results show that none of the United Cable Television Corporation front-line supervisors have had formal managerial training, yet they hold positions requiring supervision of men. They further show that the average number of correct responses on a multiple choice examination is only slightly above the minimum expected level of correct responses. The third conclusion to be drawn is that the employees engaged in supervisory activity desire further training in that area. Their comments reflect their desire for additional supervisory and technical training. The study has shown the need for additional supervisory training for the front-line supervisors of the Eastern Region of United Cable Television Corporation.

#### Recommendations

For the benefit of the supervisors, the Company employees working with and for them, and the customers served by the Eastern Region of United Cable Television Corporation, this training should be made available without further delay.

United Cable Television should make available to each of its chief technicians a program of training covering the fundamentals of first level supervision. The text by Parker et al. (6) from which 72

per cent of the examination instrument was derived would allow individual study without great expense. The Company should provide each of its Eastern Region chief technicians with a copy of the text or an equivalent text and require that they be reexamined after a period of six months. The distribution curve and mean score should be compared to those of this study. Measurable improvement should result in the establishment of the text and test instrument on a Company-wide and perhaps industry-wide basis as a supplement to technical training.



#### SELECTED BIBLIOGRAPHY

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- (2) Johnson, Richard A., Fremont E. Kast, and James E. Rosenwig. The Theory and Management of Systems. St. Louis: McGraw-Hill Book Company, 1973.
- (3) Kirkpatrick, Don L. "Supervisory Inventory on Human Relations." Edited by Don L. Kirkpatrick. Brookfield, Wisconsin, 1972.
- (4) Lawler, Edward E., III. Motivation in Work Organizations. Belmont, California: Wadsworth, 1973.
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- (8) Presthus, Robert. The Organizational Society. New York: Random House, 1962.
- (9) Roth, Edward J. Cable Television Manpower: Job Description and Educational Requirements. Washington, D.C.: Office of Telecommunications, Department of Commerce, 1973.
- (10) Straw, Tom. "Educational Programs for CATV Personnel." (Panel Discussion), 20th Annual NCTA Convention Official Transcript. Washington, D.C.: The National Cable Television Association, 1971.
- (11) White, Carl. Personal Interview, August 22, 1975.
- (12) Work in America. Report of a Special Task Force to the Secretary of Health, Education, and Welfare. Cambridge: The Massachusetts Institute of Technology Press, 1973.

APPENDIX A

THE INSTRUMENT

Please choose the best answer on questions 1-25. Please answer honestly and completely questions 26-29.

1. Numerous studies have shown that rest pauses:
  - (a) increase work output.
  - (b) decrease work output.
  - (c) have negligible effect on work output.
  - (d) there have not been numerous studies.
2. Boredom results from:
  - (a) improper planning of the job by management.
  - (b) poor working conditions.
  - (c) mental deficiencies.
  - (d) the worker's reaction to the job.
3. All accidents (excluding natural disasters):
  - (a) will happen anyway since they are controlled by fate.
  - (b) can generally be traced to one of two major causes.
  - (c) are caused by human carelessness.
  - (d) none of these.
4. The personal factor(s) related to accidents is/are:
  - (a) fatigue.
  - (b) coordination.
  - (c) vision.
  - (d) all of these.
5. Accidents are caused by:
  - (a) employee negligence.
  - (b) horseplay.
  - (c) improper attitude.
  - (d) unsafe acts or unsafe conditions.
6. People who are dissatisfied with their jobs:
  - (a) are less outgoing and friendly and show more boredom and day dreaming than satisfied co-workers.
  - (b) should quit for their and the company's benefit.
  - (c) 95% of the time have good reason to be.
  - (d) all of these.
7. Money:
  - (a) causes 93.5% of all job dissatisfaction.
  - (b) is a tool used unfairly by management.
  - (c) is rated #1 in importance by all dissatisfied workers.
  - (d) acts as a symbol in different ways for different individuals.
8. Leadership ability:
  - (a) must be obtained through years of practice on the job.
  - (b) is directly linked with the I.Q. of the leader.
  - (c) may be obtained by formal learning and practice of leadership principles.
  - (d) is inherited.

9. To find causes behind individual problems, a supervisor should:
- (a) listen.
  - (b) interrogate
  - (c) analyze.
  - (d) none of these.
10. The technical knowledge of a supervisor aids in solving only a minority of his problems because:
- (a) most of his problems in some way or another deal with human relations.
  - (b) untrue, technical knowledge solves a majority of his problems.
  - (c) as a supervisor, he does mostly paperwork and his problems are mostly administrative.
  - (d) none of these.
11. The five levels of human needs developed by A. H. Maslow include:
- (a) money, rank, seniority, praise, determination.
  - (b) mental strength, physical strength, job satisfaction, adequate salary, frequent promotion.
  - (c) physiological, safety, social, ego, self-actualization.
  - (d) none of these.
  - (e) pride, love, fear of failure, motivation, self-satisfaction.
12. Maslow's hierarchy of needs applies to every worker:
- (a) except on executive levels.
  - (b) except bureaucrats.
  - (c) except poverty stricken workers.
  - (d) without exception.
13. Proper consideration of the worker as an individual may lead to:
- (a) a lazy worker.
  - (b) more and better production.
  - (c) a worker stimulated to take night courses.
  - (d) an arrogant, bragging employee.
14. Communication:
- (a) should be one way at lower levels because the supervisor is familiar with the situations and needs only to tell the men what work is to be done.
  - (b) should be bidirectional at all levels.
  - (c) should be one way at executive levels.
  - (d) should be among men of equal level.

15. A supervisor should understand the personalities of his employees, the manner in which each differs, and should try to understand the cause of their behavior. This statement:
- (a) is false because the supervisor has no business with employee's personal lives.
  - (b) is true because, these parameters influence the employee's actions on the job.
  - (c) is false because employees should not exhibit personalities on the job.
  - (d) is true because the more the supervisor knows about an employee, the more likely he is to keep him in acceptable habits.
16. All behavior has a cause. Choose the best response:
- (a) true.
  - (b) false.
  - (c) some behavior has a cause, other is instinct.
  - (d) all behavior is caused by instinct.
17. McGregor's theory X on motivation contends (in part) that:
- (a) supervisors have great influence on the attitude of the employee.
  - (b) people are naturally lazy and dislike work.
  - (c) the employee is the backbone of the organization and should be treated as such.
  - (d) supervisors should try to empathize with employees.
  - (e) none of the above.
18. McGregor's theory Y on motivation contends (in part) that:
- (a) the attitude of the employee is largely shaped by outside forces.
  - (b) people are anxious to do good work and assume responsibility.
  - (c) management is more important than employees since employees can be replaced without appreciably altering the organization.
  - (d) supervisors should try and stay out of an employee's outside life.
  - (e) none of these.
19. Herzberg said that:
- (a) people are motivated by pay, security, and working conditions.
  - (b) people are hard to motivate.
  - (c) fringe benefits motivate people.
  - (d) pay, security and working conditions do not necessarily motivate people.

20. Frustration generally:
- (a) is the result of failure to meet goals.
  - (b) is a personal thing.
  - (c) happens on Mondays or Fridays.
  - (d) happens more before vacations than after vacations.
21. Aggression:
- (a) implies intent to change something.
  - (b) implies intent to do someone bodily harm.
  - (c) implies intent to do harm to something whether expressed or not.
  - (d) implies intent to do harm to something which if not expressed will result in sadistic tendencies.
22. Aggression stems from:
- (a) Maslow's theory S.
  - (b) Hartzberg's theory Z.
  - (c) frustration.
  - (d) incompetence.
23. The supervisor \_\_\_\_\_ in selecting employees that work with (for) him:
- (a) should have a role
  - (b) by OSHA regulations cannot have a role
  - (c) by Department of Commerce regulations cannot have a role
  - (d) should not have a role.
24. Motivation always comes from:
- (a) the supervisor.
  - (b) the company, through films and programs of participation.
  - (c) the relatives and friends of the employee.
  - (d) within the employee.
25. When an employee has a complaint, a supervisor should:
- (a) listen.
  - (b) refuse to listen for the first time or two to insure that the employee has carefully thought it out.
  - (c) refuse to listen for the first time or two to build his authority and suppress unnecessary complaints.
  - (d) listen the first time the complaint is mentioned, but be very casual and indifferent to prevent future unnecessary complaints.
26. Have you received training in the area of supervision or management from United Cable Television?

\_\_\_\_\_ yes

\_\_\_\_\_ no

Please describe:

27. Have you received supervisory training from previous employers?

\_\_\_\_\_ yes

\_\_\_\_\_ no

Please describe:

28. Would you desire further training in supervision?

\_\_\_\_\_ yes,

\_\_\_\_\_ no

29. Your comments, please, on your job: (You need not identify your system.)

Key and References

Questions 1 - 7 from Applied Psychology, Gilmer, B. v. H.  
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1. (a), page 297
2. (d), page 300
3. (b), page 311
4. (d), pages 315-317
5. (d), page 311
6. (a), page 368
7. (d), page 381

Questions 8 - 25 from Front Line Leadership, Parker, Willard E.,  
et al., McGraw-Hill, St. Louis, 1969.

8. (c), page v
9. (a), page 60
10. (a), page 66
11. (c), pages 74-75
12. (d), page 75
13. (b), page 89
14. (b), page 97
15. (b), page 138
16. (a), page 138
17. (b), page 147
18. (b), page 147
19. (d), page 148
20. (a), page 149
21. (c), page 159
22. (c), page 160
23. (a), page 172
24. (d), page 221
25. (a), page 357



APPENDIX B

COVER LETTER

MEMO TO: See Distribution  
 FROM: Dan Pike, Engineering Department  
 DATE: April 14, 1975  
 SUBJECT: Research to establish the level of supervisory  
 training in first level supervisors.  
 COPIES TO: Bob Ball, Don Lawson, Jim Neese, Jim Shuttlesworth.



Gentlemen:

With the cooperation and blessing of the Engineering and Operations Departments, I am conducting some research for which I need your help.

I have included a short test composed of 25 multiple choice questions, three yes/no questions, and one open ended question. Please administer this test to the Chief Engineer/Technician of your system and see that he completes it fully with no previous knowledge that it was to be administered and no outside aid during the test. There is no time limit. The name of the state or group of states in which your system lies will appear in the upper corner of the test but this also is for research purposes and does not indicate that the name of the system or person taking the test should be filled in. There should be no marks made on the test to indicate the system or name of the Chief Engineer/Technician. This is done to assure honesty in answering the last questions in particular, as well as the rest of the test. Please emphasize that the purpose of the test is to satisfy research questions only and can in no way be tied back to the individual for purposes of salary evaluation, etc. Please return the test to me no later than five working days after you receive it.

If I may answer any questions, please call. Thank you for your cooperation.

*Dan Pike*

Dan Pike

DP:ph

Read and understood:

Bob Ball, Vice President of Operations

*Bob Ball*  
 \_\_\_\_\_  
 Jim Neese, Chief Engineer

*James W. Neese*  
 \_\_\_\_\_  
 Don Lawson, Eastern Regional Manager

*Donald W. Lawson*  
 \_\_\_\_\_  
 J. C. Shuttlesworth, Eastern Regional Engineer

*J.C. Shuttlesworth*  
 \_\_\_\_\_

VITA

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Master of Science

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Professional Experience: Project Engineer, United Cable  
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Professional Organizations: Member of the Institute of Electrical  
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