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SMITH, EDWARD EARL
THE EFFECTS OF A SUPERVISORY TRAINING PROGRAM ON THE ATTITUDES, KNOWLEDGE AND BEHAVIOR OF SUPERVISORS AT AN AIR FORCE LOGISTICS CENTER.

THE UNIVERSITY OF OKLAHOMA, PH.D., 1979

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GRADUATE COLLEGE

THE EFFECTS OF A SUPERVISORY TRAINING PROGRAM ON THE ATTITUDES, KNOWLEDGE AND BEHAVIOR OF SUPERVISORS AT AN AIR FORCE LOGISTICS CENTER

A DISSERTATION

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the

degree of

DOCTOR OF PHILOSOPHY

BY

EDWARD EARL SMITH

Norman, Oklahoma

1978

THE EFFECTS OF A SUPERVISORY TRAINING PROGRAM ON THE ATTITUDES, KNOWLEDGE AND BEHAVIOR OF SUPERVISORS AT AN AIR FORCE LOGISTICS CENTER

APPROVED BY:

DISSERTATION COMMITTEE

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CHAPTER I

INTRODUCTION AND STATEMENT OF THE PROBLEM

Some form of training, be it formalized classroom instruction or on the job development, takes place at nearly all levels in most modern organizations.[1] The past thirty years have witnessed a growth in the number of training programs initiated in organizational settings. Some of the factors contributing to this growth are: rapid expansion of technological knowledge, governmental equal employment opportunities and affirmative action requirements, increased organizational complexities, longer employee tenure and the rise of "job enrichment" movement within organizations.[2]

The need for and the methodologies for establishing training programs receive considerable attention in the training literature. Unfortunately, the amount and quality of the evaluation research concerning training programs has not received equal attention.

Most studies approach evaluation of training from either the effects of training relative to (a) the degree of learning

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[1]Kerry A. Bunker and Stephen L. Cohen,"The Rigors of Training Evaluation: A Discussion and Field Demonstration," Personnel Psychology A Journal of Applied Research, Vol. 30, No. 4, 1977.

[2]Ibid.

that takes place in the classroom, (internal validity) or the degree to which learning in the classroom results in on-the-job behavior change (external validity).

For example, North American Rockwell, Power Systems Division, Canoga Park, California, evaluated a twenty-one hour training program designed to increase their employees understanding of affirmative action. Only internal criteria was used concerning: (1) the reactions of the participants to the program and (2) changes in scores on a written quiz designed to measure "awareness". The pretest mean scores and posttest mean scores indicated the largest increase (23 points) but did not report the significance of the change. Nevertheless, the report concluded that "benefits to the company may be expected in the form of more positive resolution of human problems and a predicted improvement in the acceptance and attainment of affirmative action goals.[3]

Another example of evaluation of training using only "internal" factors as the criteria affecting conclusions is found in the training program conducted by the PEDR Urban Associates, Inglewood, California, for Mexican-American Professionals. The program had several objectives i.e.: (1) to develop a more positive integrated self-concept.

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[3]Reported in A Survey of the Effectiveness of Management Development Programs, Civil Service Commission, Washington, D. C., Bureau of Training Pamp-T-14, May, 1971.

to assist participants in application of interpersonnel skills dealing with human behavior, (3) to build working relationships within and between the Mexican-American and Anglo-American communities, (4) to guide participants in a community problem solving project and (5) to encourage the participants to explore their personal identities. A battery of attitude tests was administered in the first and last sessions of the program to evaluate changes in the various dimensions of three attitude clusters: (1) view of self, (2) view of others, and (3) view of the environment. The results showed significant attitude changes as a result of their seven-week experience together. Participant reactions and delayed follow-up attitude measures were not reported. The conclusion of this report was that as a result of the training the participants would perform more effectively as executives and community leaders.[4] This use of internal criteria only is at best a narrow research view of the measure of training effectiveness.

Campbell et al. found that in over 20 years of research only 21 studies used external criteria of behavior changes. Only 13 of these 21 were described as controlled studies and only 9 of the 13 produced statistically significant differences on a major criterion variable.[5]

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[4] Ibid.

[5] J. P. Campbell, M. D. Dunnette, E. E. Lawler, K. E. Weick, Managerial Behavior; Performance and Effectiveness (New York: McGraw-Hill, 1970).

The literature was replete with suggestions for using various forms of Kirkpatrick's model for training research. This model concerns itself with four aspects of training research, i.e., participant reaction or how well they liked it, learning or how much of the training content is assimilated; behavior, changes in on-the-job behavior after training; and results, changes in organizational variables such as costs, productivity and turnover. Catalanello and Kirkpatrick surveyed 110 firms in which few of these variables were used in evaluating training. Most of the 110 firms used trainee reactions but few tried to measure behavior of results. They concluded that training research is still in its infancy.[6]

Statement of the Problem

This investigation is concerned with the aspects described in Kirkpatrick;s model, i.e., participant reaction, learning and behavior. Specifically, the problem was to ascertain if there was any statistically significant change in participant attitudes, knowledge and behavior following attendance in a training program designed to bring about positive changes in those areas. Comparisons were made between pretest and posttest measures of participant

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[6]R. F. Catalanello and D. L. Kirkpatrick, Evaluating Training Programs, The State of the Art, Training and Development Journal, Vol. 22-25, 1968, pp. 2-9.

attitudes, course achievement, and on-the-job behavior. These measures were then correlated to determine the amount of relationship among them. The design is discussed in detail in Chapter III of this study.

Rationale for the Study

As measured by the number of persons involved in training, whether as students, instructors, support personnel or managers and supervisors, the number and variety of training programs is one of the largest and most diversified enterprises in the American economy.[7] For example, Tracey cites several studies indicating cost of training to private industry as escalating from approximately $3 billion in 1958 to nearly $27 billion in 1971.[8]

The federal government is extensively involved in training and development of its employees. Virtually all departments and agencies of government conduct training programs for their own personnel.[9] In 1971, a total of 967,619 federal employees participated in training and development programs.[10] The total cost of the training

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[7]William R. Tracey, Managing Training and Development Systems (New York: AMACOM, 1974), p. 1.

[8]Ibid., pp. 10-11.

[9]Ibid., p. 11.

[10]Ibid., p. 12.

provided for federal employees in fiscal year 1971 was in excess of $419 million.[11] This does not include cost for military training which by 1971 was exceeding $3 billion annually.[12]

Over $32 billion was invested in training in 1971, not including funds for private and public education. This represented 3.1 percent of the gross national product in that year.[13]

In 1976, the United States Air Force Logistics Center at Tinker Air Force Base in Oklahoma City established a joint civilian/military committee for the purpose of constructing a comprehensive 5-year training plan for the civilian managers of the Oklahoma City Logistics Center. This committee assumed the title "Superman", an acronym for supervisor/manager.

Prior to the development of the training plan innumerable hours of dialogue were carried out with leading educators from Oklahoma academic institutions, and consultation was conducted with the top management of its Federal Aviation Agency and the U. S. Air Force Leadership and Management Development Center at the Air University, Maxwell Field, Alabama.

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[11]Ibid., p. 14.

[12]Ibid., p. 24.

[13]Ibid., p. 46.

Following these consultations, the "superman" committee, a group of senior Air Force civilian and military managers and executives, entered the Kepner-Tregoe Management Training Course. The product of this course was a broad statement of training needs for the Oklahoma City Air Logistics Center supervisors and managers from subunits through director level. The list of desired objectives and the requirements stated in the Federal Personnel Manual became the framework for the development of a training plan.

According to the 5-year plan, the need for updating supervisory/managerial skills was generated by an accelerated rate of supervisory retirements, coupled with significant internal and external changes affecting the workforce. It was felt that this updating could best be accomplished through a standardized ongoing program of professional education.[14]

The Tinker Air Force Base and the Oklahoma City Air Logistics Center together employ one out of every 53 civilians employed in the Oklahoma City Metropolitan Area which includes Oklahoma County, Cleveland County, Canadian County, Pottawatomie County, and McClain County. This comprises a total civilian workforce of 16,644 personnel.

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[14]Oklahoma City Air Logistics Center; 5-year Training Plan for Civilian Supervisors, Managers, and Executives; p. 2.

In January 1977, the Oklahoma State Regents for Higher Education designated Oscar Rose Junior College to serve as the administrative institution for a Management Training Center as proposed by the Oklahoma City Air Logistics Center acting upon the advice of the "Superman" committee. The Management Training Center is composed of a consortium of institutions of higher education acting on inter-institutional agreements to provide for development and delivery of the desired training program.

The objective of the Management Training Center is to provide training in the principles of management for all of the first level supervisors, mid-level managers and executives of the Air Logistics Center. This training is to be directed to approximately 1,500 managerial workforce personnel. The five-year plan envisions the involvement of five other Air Force Logistics Centers located throughout the United States.

The State Board of Regents, acting in a coordinating capacity, approved the Oscar Rose response to the Air Force solicitation for bids, and a contract was signed between Oscar Rose Junior College and the Oklahoma City Air Logistics Center effective March 1, 1977, for a period of 4 years, 7 months at an approximate cost of $1.6 million.

With the monetary investment involved, it is of vital concern to the organization contracting for the training that

the program is meeting their needs and stated objectives. This concern can only be alleviated by conducting a meaningful assessment of training outcomes.

The subject of evaluation procedures for training programs has been a topic of concern for program developers and training analysts for years. A review of the training literature reveals a positive encouragement in this direction, however, it also reveals a lack of actual practice in applying appropriate controls necessary to draw reasonably valid conclusions.[15]

Bunker and Cohen pose the following questions that can frequently be answered through evaluation:[16]

1. Is the problem amenable to a training solution?
2. Which training method is most appropriate for the material and the target population?
3. Was the course material learned?
4. Did the training result in the desired immediate demonstration of behavior change?
5. Did the immediate learning or behavior change translate into the desired on-the-job performance?
6. What could be made to improve the training program?

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[15]Kerry A. Bunker and Stephen L. Cohen, "Evaluating Organizational Training Efforts: Is ignorance really bliss?", Training and Development Journal, 1978.

[16]Ibid.

7. Are there particular types of trainees for whom the training is more (or less) effective?
8. What are the implications of the induced behavior change relative to meeting long range organizational goals?

The ultimate question to be answered in relation to the effectiveness of a management training program is "does the program make managers and the organization more effective?" The approach taken in implementing a program may focus on several aspects of individual and collective effectiveness such as, increased production, employee satisfaction, improved interpersonal relations, etc., in the hope that individual productivity and effectiveness will be increased.

J. P. Campbell, et. al., in 1970 made the point

> ... that the present empirical literature on the relationship of training to management performance tells us very little about what kind of knowledge and skills contribute to managerial effectiveness. In order for this to happen, it must be demonstrated that 'what is learned' in a training program contributes to making the individual a better manager. For example to say that a positive attitude toward the human relations aspect of work contributes to managerial effectiveness, a change in such an attitude must be reflected by a change in performance.[17]

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[17] J. P. Campbell, M.D. Dunnette, E. E. Lawler, III, and E. K. Weick. Managerial Behavior, Performance and Effectiveness, (McGraw-Hill, 1970), p. 325.

The operative phrase in the above quotation is 'what is learned' but of primary interest to a training program evaluator is 'how do we know what was learned?' The answer to this question is in turn directly related to the program evaluation design.

The program under investigation in this report was developed from the point of view of providing the most desirable conditions for learning for adult learners. In general, these conditions were proposed by Knowles and designed into the program as follows:

> First, the instructor should see that the participant understands the goals of the program.[18]

This was accomplished by providing each participant with an outline of the program and each unit's objectives at the beginning of the course. In addition, a pretest covering all units of instruction is administered on the first day.

> Second, the instructor's attitude, acceptance and respect for individual personality should create an atmosphere which is pleasant and comfortable for the student.[19]

Every effort is made to recognize each individual as a person by means of student conducted interviews with each other followed by personal introduction to the rest of the class. During this exercise, individuals are recognized

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[18]Malcolm S. Knowles, Informal Adult Education, (New York: Association Press, 1956), p. 15; p. 257.

[19]Ibid.

for their positions and length of experience on the job.

> Third, physical discomfort is distracting.[20]

The program contract limited the class size to twenty students. New furniture and chairs were purchased to insure physical comfort for the student. Careful attention was paid to lighting and temperature control in the classroom.

> Fourth, the participant will enjoy and receive more from the course if he actively participate in the classroom discussion.[21]

This principle was supported by studies of Thorpe and Schnuller (1954) and Bugelski (1956) as reported by Smith and Smith (1966).[22] The program design is participant centered, that is, classroom discussion utilizing the experience of each participant is the main methodology employed to attain specific objectives.

> Fifth, methods used by the instructor should vary.[23]

A variety of methodologies are used in the program under investigation. Such methods as case studies, role play, simulations, workshop, self-evaluation instruments,

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[20] Ibid.

[21] Ibid.

[22] Karl U. Smith and Margaret Foltz Smith, Cybernetic Principles of Learning and Educational Design, (New York: (Holt, Rinehart and Winston, Inc., 1966), p. 45.

[23] Knowles.

lecture discussion, video-tape recording and playback, are among the major methods employed by the instructors.

> Sixth, the participant is the center of the adult learning process.[24]

This is the basic concept of instruction in this program. By the use of questioning techniques the student uses their own and other students' life experiences to assist the instructor in obtaining the objectives.

The chronological age and level of educational attainment, of the students attending the program, places them in a category generally defined as Adult Learners. The population from which a random-sample was drawn for this study exhibited a mean age of 46.04 years and a formal educational attainment of 14.28 years.

According to Knowles:

> Starting shortly after the end of World War I there began emerging both in this country and in Europe a growing body cf notions about the unique characteristics of adults as learners. But only in the last decade have these notions evolved into a comprehensive theory of adult learning.[25]

Any investigation concerning the effectiveness of an instructional program presupposes that a learning environment has been established. Therefore, the investigative design

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[24] Ibid.

[25] Malcolm Knowles, The Adult Learner: A Neglected Species. 2nd Ed., Houston (Gulf Publishing Company), 1978, p. 28.

relating to adult learning should concern itself with the theories and scientific contributions concerning Adult Learning. A review of the pertinent theories and scientific contributions will be presented in Chapter II.

Hypotheses Tested in the Study

Evaluation of the effectiveness of the program under observation was approached from four directions. First, was there a positive gain in the participants' attitudes as a result of the training program. Second, was there any indication of improved on-the-job behavior following completion of the program? Third, did the participants learn the course material as evidenced by pre and posttesting their knowledge of the program content? Fourth, was there evidence of any relationship between the participants' attitudes and knowledge relating to principles of supervision?

The statistical hypotheses and procedures for testing them are presented in Chapter III of this report.

Definition of Terms

It was necessary to define some terms being used in the study in order to avoid multiple interpretations. Terms and their meanings in this research effort were as follows:

First-Level Supervisor: A supervisor of non-supervisors employed by the Air Logistics Center, Tinker Air Force Base.

Training Cycle: The 12-day period needed to teach the training course material to each group of participants.

Supervisory Behavior: The supervisors' on-the-job performance as measured by the Supervisory Style Survey shown in Appendix C.

Training Achievement: Participant achievement accomplished through the training program as measured by the criterion-reference test presented in Appendix A.

Training Achievement Change Scores: The arithmetic difference between the pretest and posttest achievement scores.

Supervisory Training: The 12-day schooling process conducted for first-level and mid-management employees at Tinker Air Force Base.

Management Attitudes: Participants' attitudes toward supervisory responsibilities as measured by the How Supervise? instrument presented in Appendix B.

Limitations

Several limitations were placed on the study. This was necessitated for several reasons. First, the program being evaluated is concerned only with the training of first-level supervisors as an introduction to the principles of supervision. Secondly, the desired outcomes, as proposed by the Logistics Center involved both the knowledge and attitudes of the trainees and thirdly, the topical areas of instruction were specified by the organization contracting for the training. These limitations associated with the participants, the areas of instruction and the data collection instruments are as follows:

1. Study participants were limited to the first-level supervisors who were employed at the Oklahoma City Air Logistics Center, Tinker Air Force Base, in Midwest City, Oklahoma during the 1977-78 calendar year.

2. The measurement of supervisory attitudes toward management was limited to the discrepancy scores resulting from the How Supervise? instrument presented in Appendix B.

3. Training course content will be limited to the seven areas of:

(1) Supervisory skills

(2) Personnel management

(3) Policies and procedures

(4) Federal acts and labor unions

(5) Communication

(6) Individual behavior and interpersonal relations

(7) Group behavior

The criterion-referenced test instruments presented in Appendix A, reflect course material from these seven areas.

4. Measurement of on-the-job supervisory behavior was limited to the areas represented by the supervisory style survey presented in Appendix C.

5. Measurement of the participants' attitudes toward supervisory skills and practices was limited to the areas represented by the How Supervise? inventory instrument presented in Appendix B.

CHAPTER II

REVIEW OF RELATED RESEARCH

Tough reported:

> Although much of adult learning is global and diffuse, almost all adults engage in some systematic and sustained learning episodes each year with the intention of increasing competence.[1]

The program being reported on in this study is designed to provide effective learning and increase the competence of adult supervisors. It is deemed appropriate to review some generalizations about adult learning. Inquiry into theories concerning adult learning usually becomes dichotomous in that either one pursues the experimental investigations concerning the process of learning or the more philosophical approach relating to conditions that appear to enhance adult learning.

Edward L. Thorndike with his publications of Adult Learning in 1928 demonstrated that adults could learn. He concluded that adults could be expected to learn at:

> nearly the same rate and in nearly the same manner as they would have learned the same thing at fifteen to twenty.[2]

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[1] A. Tough, The Adults Learning Projects, Research in Education Series No. 1 (Toronto: Ontario Institute for Studies in Education, 1971.

[2] Edward L. Thorndike, Adult Learning, (New York: McMillan, 1928), pp. 177-78.

The above statement has been supported by additional research conducted by Jones and Conrad (1933) and Owens (1966) which found that learning ability, mainly based on readministration of intelligence tests indicate a high degree of stability between the ages of twenty and fifty.[3]

Jack R. Gibb attributes the beginning of experimental psychology in learning to Ebbinghaus.[4] Ebbinghaus (1885) set up what is thought to be the first laboratory research on learning.[5] Possibly more important, he became the first to express his empirical data as a mathematical function. Ebbinghaus established two principles of learning. One, practice was beneficial beyond the point of learning.[6] (overlearning) Two, spaced practice improved retention more than mass learning at one time.[7]

Through the study of learning theory, practitioners of adult education attempt to gain an insight into the complimentary aspects and conflicting areas that prevail in

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[3]W. A. Owens, Age and Mental Abilities: A Longitudinal Study, Journal of Educational Psychology, 1966, pp. 311-325 and H. E. Jones and H. S. Conrad, The Growth and Decline of Intelligence: A Study of a Homogenous Group between the Ages of Ten and Sixty, Genetic Psychology Monographs, 1933, pp. 223-298, as reported by Alan B. Knox in Adult Development and Learning, (San Francisco: Jossey-Bass Publishers, 1977), p. 416.

[4]Jack R. Gibb, Learning Theory in Adult Education, Handbook of Adult Education in the United States, Malcolm Knowles, ed., (Chicago: Adult Association of the USA, 1960), pp. 54-64.

[5]Smith & Smith, p. 22.

[6]Ibid.

[7]Ibid.

modern theory. It is difficult to apply any of the theories but at some point program developers find it necessary to design methodologies and objectives in keeping with one or more current theoretical concepts.

Bigge suggests integrating the different learning theories into two broad classifications. These being, one, stimulus-response associationism and two, Gestalt-field.[8]

To the stimulus-response theorists, learning is a change in behavior. It is the result of stimuli becoming related to responses. Stimuli becomes the cause of learning. Responses are physical reactions to either external or internal stimulation.[9]

Learning for the Gestalt-field theorists, is a process of changing insights, outlooks or thought patterns.[10] This theoretical learning process is the primary approach used in developing objectives and methodology in most management training programs.

> Learning to supervise others effectively typically entails many types of learning activities, such as closely observing others, on-the-job training, supervisory coaching by one's manager, supervisory training sessions, reading about supervision, and receiving feedback about the adequacy of supervisory performance. The supervisory position may include keeping track of time, materials, and money, which may require the acquisition of skill in

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[8]Moris R. Bigge, Learning Theories for Teachers, 3rd ed., (New York: Harper & Row Publishers, 1976), p. 11.

[9]Ibid.

[10]Ibid.

> the use of a calculator or other office machine. Often the new supervisor must acquire large amounts of new information about procedures and related operations that extend beyond his or her former specialized job. Supervisory training or management development sessions typically focus on helping the new supervisor to understand concepts to improve supervisory performance. This may entail role playing and sensitivity training to develop greater empathy as well as practice in conducting meetings or preparing reports. These learning activities are successful to the extent that the new supervisor integrates relevant experience and recent changes in knowledge, skills, and attitudes to produce improved performance.[11]

Analysis of primary mental abilities by Horn and Cattell resulted in identification of between two and four dozen mental abilities or factors.[12] Further analysis produced four second order factors, these being, speed, visualization, fluid intelligence and crystallized intelligence.[13] The theory of fluid and crystallized intelligence was further developed by Cattell and tested by Horn and Cattell. Their basic conclusion is that there are two contrasting but interacting influences that produce cohesion in intelligence. These influences are neurophysiology and acculturation.

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[11]Alan B. Knox, Adult Development and Learning, (San Francisco: Jossey-Bass Publishers, 1977), p. 407.

[12]J. L. Horn and R. B. Cattell, Age Differences in Primary Mental Ability Factors, Journal of Gerontology, 1966, pp. 210-220.

[13]Ibid.

Neurophysiology forms the base for the fluid intelligence. It consists of unlearned reactions and capacities that are limited by both heredity and accumulated injury to the neural system.

Acculturation is the basis of crystallized intelligence i.e. the ability to perceive relationships and engage in formal reasoning and abstraction based on familiarity with cultural and intellectual heritage of our society.[14]

Fluid and crystallized intelligence, interacting together constitute the intellectual ability of adults to learn, reason and solve problems.

Investigation by Tuddenham, Blumenkrantz and Wilkin, 1968, and Fogard and Nuttal, 1971, found that fluid intelligence increases during childhood and into adolescence. It reaches it's peak in adolescence and gradually declines during adulthood.[15]

In contrast is crystallized intelligence which researchers found continues to increase gradually throughout adulthood. Sward, 1947,[16] Bayley and Oden, 1955,[17] D. P. Campbell,

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[14] Ibid, Knox, p. 420.

[15] R. D. Tuddenham, J. Blumenkrantz, and W. R. Wilkin, Age Changes on AGCT: A Logitudinal Study on Average Adults, Journal of Consulting and Clinical Psychology (32), 1968, p. 659-663.

[16] R. Sward, Age and Mental Ability in Superior Men, American Journal of Psychology, 1945, 58, pp. 443-479.

[17] N. Baley and M. H. Aden, The Maintenance of Intellectual Ability in Gifted Adults, Journal of Gerontology, 1955, Vol. 10, pp. 91-107, reported in Knox.

1965,[18] found that beyond age sixty continued growth of crystallized intelligence depended upon continued acculturation.

These studies combine features of both the behaviorists and Gestalt theories of learning. Knox summarizes the findings of research into theories of Adult Learning as follows:[19]

1. Both instructors and students are concerned about the learning ability of the adult student.
2. Performance on tests involving short term memory and abstract reasoning tend to peak after adolescence and gradually decline during adulthood.
3. Performance on tests involving general information and formal reasoning continue to gradually increase during adulthood.
4. If adults can control their own pace, they have about the same ability to learn in their forties and fifties as they had in their twenties and thirties.
5. Adults who have had recent educational experiences tend to learn more effectively than those who have not.
6. Adults acquire cognitive structures through experience which if recognized can enhance further understanding.

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[18] D.P. Campbell, A Cross-Sectional and Logitudinal Study of Scholastic Abilities over Twenty-five Years, Journal of Counseling Psychology, 1965, 12, pp. 55-61.

[19] Knox, pp. 464-469.

7. Instructors can facilitate adult learning by allowing freedom to explore both achievement of objectives and discovery of new objectives.
8. Almost any adult can learn almost anything they want if provided time, persistence and assistance.

Carol H. Weiss discussing the purpose of Evaluation Research states:

> The purpose of evaluation research is to measure the effects of a program against the goals it set out to accomplish as a means of contributing to subsequent decision making about the program and improving future programming.[20]

Reviewing program evaluation literature raises a suspicion that only positive results are published. However, it also establishes the concept that program evaluation of training courses is generally accepted as an essential part of effective training administration. If the evaluation is based on objective and factual information it becomes the basis for managerial decisions and administrative action to establish. abolish or change training programs. The underlying assumption in this report is that evaluation to determine the effectiveness of the supervisory training program is essential to the improvement of future programs.

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[20]Carol H. Weiss, Evaluation Research, (New Jersey: Prentice-Hall, Inc., 1972), p. 4.

Donald L. Kirkpatrick's model for training research is cited numerous times by writers as a suggested model for those engaged in training evaluation.[21] Kirkpatrick's model recommends measuring participant reactions to the training; learning how well or to what extent did the participant assimilate the course material; and results or changes in organizational variables such as costs, productivity, etc. Catalanello and Kirkpatrick surveyed 110 firms as to which of these variables were used in evaluating training programs. Most of the 110 evaluated participant reaction but not learning or results.[22]

Kirkpatrick's A Practical Guide for Supervisory Training and Development indicates many different philosophies and approaches concerning program evaluation. Some feel that the only real evaluation is that which measures changes in behavior that takes place on the job. Others feel that behavior change is not enough. Others feel that questionnaires and comment sheets are helpful in evaluating training programs.[23]

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[21]John P. Campbell, "Personnel Training and Development," Annual Review of Psychology, ed. by Paul H. Mussen and Mark R. Rosewenzweig, (Palo Alto, California: Annual Reviews, Inc., 1971), p. 577.

[22]R. F. Catalonello and D. L. Kirkpatrick, "Evaluating Training Programs: The State of the Art," Training and Development Journal 22 (1968): 2-9.

[23]Donald L. Kirkpatrick, A Practical Guide for Supervisory Training and Development, (Reading, Massachusetts: Addison-Wesley Publishing Company, 1971), p. 88.

Throughout current publications on training there is a recurring admonition to evaluate training programs. However, as Campbell views these admonitions, they imply a dichotomous outcome: either the program has value or it doesn't.[24] If that point of view prevails then the evaluation is too narrowly restrictive.

Campbell and Dunnette summarized most of the management development research that has been conducted over the last 20 years. They reviewed 84 studies and reported on 73 of them. They classified the studies by content, external and internal criteria and degree of experimental control exercised.

The majority of the studies, (42) using both internal and external criteria, were conducted on General Management Programs and T groups or Laboratory Education. In over 20 years of research only 21 studies used external criteria of behavior change.[25] Of those 21 only 13 were at best what they considered to be locsely controlled studies.[26] Of those 13 only 9 produced statistically significant differences on a major criterion variable.[27]

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[24]John P. Campbell, "Personnel Training and Development," Annual Review of Psychology, ed. by Paul H. Mussen and Mark R. Rosewenzweig, (Palo Alto, California: Annual Reviews, Inc., 1971), p. 576.

[25]Ibid., p. 580.

[26]Ibid.

[27]Ibid.

Bunker and Cohen reported on an extensive evaluation of a program conducted for 131 Installer-Repairmen in a large independent telephone company. Using the classic Solomon 4 group model their evaluation was directed at determining the effects of training relative to internal and external validity. The effect of pretest sensitization and its effect on internal validity was of major concern. They feel that pretest sensitization cannot be adequately controlled using the traditional 2-group design. The Solomon 4 group model extends the 2-group design to include two additional unpretested control groups.[28]

Bunker and Cohen felt that if pretesting generates learning or recall of previously learned material, the internal validity of the evaluation is threatened by the pretest exposure causing inflating or depression of the posttest measure.[29] In their study, there was evidence of pretest contamination; however, it was not sufficient to distort the major evaluation results that the training was effective. Their final conclusion concerning pretest contamination is:

> Much research is needed before reliable predictions of the probability and direction of pretest contaminations can be made for given types of training with given types of trainees.[30]

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[28]Kerry A. Bunker and Stephen L. Cohen,"The Rigors of Training Evaluation: A Discussion and Field Demonstration," Personnel Psychology, A Journal of Applied Research, (Personnel Psychology, Inc.), Vol. 30, No. 4, 1977, pp. 525-540.

[29]Ibid.

[30]Ibid.

Spautz, in his survey of the effectiveness of Management Development Programs for Civil Service Commission, found that training executives, trainers, and researchers were in widespread agreement as to the difficulty for doing conclusive research in the field of training mainly because of the problem of defining and developing reliable and valid criteria for effectiveness.[31]

In his survey, Spautz was attempting to obtain information about private industry training evaluation which might be used or adapted for use by Federal Agencies. Spautz surveyed a total of 244 such programs. Only 17 studies were located that he considered "substantial" enough to be included in his report.[32] This is indicative of the paucity of meaningful program evaluations available in the literature.

In a sense, research into program evaluation became involved in what appeared to be a replication of other evaluations and in fact to one degree or another may well be a duplication. However, the advisability of replicating validity studies was demonstrated by Spautz. When he attempted to measure changes in attitudes associated with sensitivity

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[31]Michael E. Spautz, A Survey of the Effectiveness of Management Development Programs: Conducted for the Civil Service Commission, 1971. Eric Accession Number EDO 064599.

[32]Ibid.

training using a specially designed version of the Semantic Differential, he found a significant shift in attitudes in the predicted direction. The results were interpreted as support for the effectiveness of the T-Group experiences. However, upon replication of the experiment there were no significant improvements in attitudes, and in fact one group showed a distinct change for the worse.[33]

The 17 programs surveyed in the private sector by Spautz are indicative of the research being conducted in the area of program evaluation. The summaries of the research were organized into two major categories defined in terms of the criteria which were used to evaluate the programs: (1) external criteria and (2) internal criteria; external criteria being defined as objective performance measures on the job, operating data such as employee turnover and employee grievances and performance ratings made by supervisors, peers and subordinates. "Internal" criterion was defined as: knowledge and attitude test, and self-report type questionnaires completed by the participants to get their opinions about the program.

In every instance the conclusion drawn by the research provided some form of evidence of the effectiveness of the training program under observations. For example, the Bank of America in San Francisco evaluated their supervisory training based on self-reported behavioral change

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[33]Ibid., p. 9.

and perceptions of the participants as providing evidence of effectiveness of the program. The caution against over generalization and the requirement for further research is a recurring theme in the literature of program evaluation. The present investigation uses elements of both "internal" and "external" criteria against which to measure the effectiveness of the management training program being conducted by the Air Force Logistics Center (AFLC).

Spautz's summary drew some general conclusions which are summarized here as they are pertinent to this report.[34]

(1) Management development programs take on a bewildering variety of forms.

(2) Many management development programs are based on stated or implied objectives, but the objectives are rarely operationally defined.

(3) Organizations are increasingly relying on outside resources for putting on development programs. There is more emphasis on tailor-made programs for specific groups or individuals.

(4) The behavioral sciences are becoming increasingly influential in the theory and practice of development. There is

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[34] Ibid.

increased emphasis on motivation, problem solving and decision making, the development of cognitive and communication skills and attempt to change value systems and attitudes.

(5) Relatively few management development programs have been validated in the sense of being supported by empirical evidence of their effectiveness.

(6) The presence of uncontrolled variables makes it difficult to attribute criterion data to the management development experience.

(7) There is probably a high degree of bias in reporting only those studies that work out.

The following is a summary of a study conducted by Spautz.

Banks of America, San Francisco. Instruments used:

(1) 15-item job information survey.

(2) Survey form completed by participants' superiors.

(3) Similar form, but long filled out by participants' subordinates.

(4) Summary of operations statistics measuring absenteeism, separations, vacations.

The results for each area surveyed were:

Area (1), Substantial improvement

Area (2), Statistical treatment revealed consistent pattern of improvement.

Area (3), Subordinate data not analyzed

Area (4), Observed changes not considered significant.

Conclusion:

There was evidence of effectiveness of training based on self-reported behavioral change and perceptions of participants' superiors.[35]

The research of literature revealed that evaluations contribute in part to the body of knowledge pertaining to the effectiveness of training programs. This report will contribute significantly to specific knowledge concerning the type of program under observation as it applies to the Air Force civilian work force. The program being investigated is the first such program undertaken by a military component of the Department of Defense directed entirely toward the training of their civilian work force. Historically, the Air Force and other military groups have concentrated on the training of their military personnel in the areas of

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[35]Ibid., Spautz.

management and supervision. The attendance at these programs by selected civilian personnel was incidental. This program is directed at all the first level supervisors of a civilian work force and the attendance of military personnel is incidental. The main purpose of the program is to meet the needs of an organization staffed by a civilian work force.

CHAPTER III

METHODS AND PROCEDURES

In this study, the evaluation problem is approached from two directions. One, internal criteria are measured by collecting and analyzing data pertinent to attitudes, knowledge and skills. Two, external criteria are measured by relating to the participants' on-the-job performance as perceived and evaluated by his superior.

A total of twenty-five civilian supervisors acted as subjects to determine the effects of a 12-day supervisory training program on the participants' level of supervisory behavior, management skills, and supervisory knowledge. Three data collection instruments were used to gather information concerning the results of the 75-hour program which is based on seven content areas. A criterion-referenced test, a supervisory behavior check-list, and a norm referenced test were administered to participants on a pretest-posttest basis.

The methods and procedures were divided into three phases as follows: (1) Pre-Experimental Procedures, (2) Experimental Procedures, and (3) Data Analysis Procedures. Each of these areas is considered in the following sections of the dissertation.

Pre-Experimental Procedures

The pre-experimental procedures consisted of all those tasks which were necessary to complete before the data were collected from the participants. The most important of these procedures are explained in the following sections.

Choice of Research Design

The first pre-experimental procedures was to choose the proper research design for the conduct of the study. The words "research design" are intended to mean the plan, structure, and strategy of investigation conceived to obtain answers to research questions and to control external sources of variation. The Plan is the overall scheme or program of the evaluation problem; the Structure is the more specific structure or paradigm of the actual manipulation of the independent variables being studied; and the Strategy as used here is more specific than the structure--it is the actual methods to be used in the gathering and analysis of the data.[1]

A research design serves two basic purposes: (1) it provides answers to research questions posed by the investigator; and (2) it controls external sources (independent variables) of variation. Kerlinger makes the following

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[1]Fred N. Kerlinger, Foundations of Behavioral Research, (New York: Holt, Rinehart, and Winston, Inc., 1964), p. 276.

statement in regard to research and evaluation designs:

> How does design accomplish this? Research design sets up the framework for 'adequate' tests of the relations among variables. The design tells us, in a sense, what observations (measurements) to make, how to make them, and how to analyze the quantitative representations (data) of the observations. Strictly speaking, design does not 'tell' us precisely what to do, but rather suggests the directions of observations should be made, and which variables (independent variables) are active variables and to dichotomize or trichotomize or otherwise categorize the assigned variables. A design tells us what type of statistical analysis to use. Finally, an adequate (proper for the particular situation) design outlines possible conclusions to be drawn from the statistical analysis (Parenthetical material added, pp. 196-197).

The research design chosen for the present experiment was a true experimental research design preceded by the random sampling of participants from finite populations. A flow chart depicting this research design is presented in Figure 1.

Population and Sample of Supervisors

Present employment figures of first-level supervisors at Tinker Air Force Base show a total population of nearly 1,400. The entire supervisory training program will be conducted for a time of four years and seven months, during which time the entire population will be required to complete the 12-day training program. Twenty supervisors can be accommodated during each 12-day training cycle with 36 training cycles being conducted during any one fiscal year.

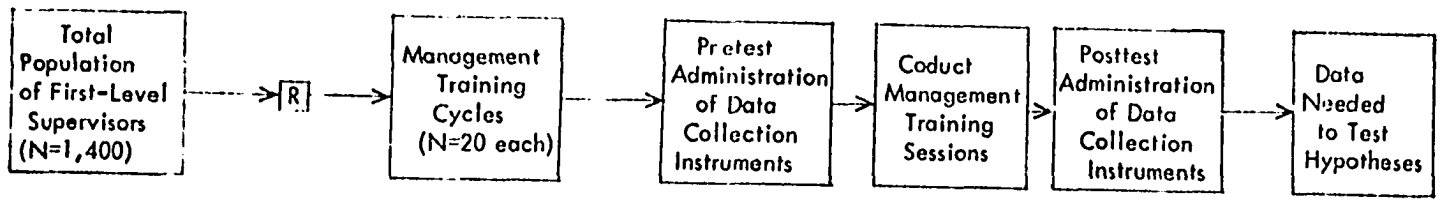

Figure 1: Flowchart of Research Events

This would give a total population of 720 supervisors per year from which to sample participants for the study.

At the time of the report approximately one-half of the total supervisory population had attended the training program. There is no reason to believe that a significant difference exists between those who have attended and the remaining population.[2] Three classes of 20 participants each were selected for observation.[3] From these three classes, 25 participants were randomly selected as the study sample.

Data Collection Instruments

Three data collection instruments were used in the study, a criterion-referenced test of achievement, a How Supervise? test for measuring participants' attitudes, and a Supervisory Style Survey for measuring behavior. Each of these instruments is discussed in the following sections.

Development of an Achievement Test

A criterion-referenced test was developed for measuring the supervisors' achievement in the training course. The achievement test contained 100 multiple-choice items which

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[2]Before the program started demographic information on all the first-level supervisors in the workforce was compiled. This is analyzed on a class by class basis. There appears to be no significant difference between classes. The remaining population is similar to those who have completed the program.

[3]These three classes were selected on the basis of being the first classes to have compiled the on-the-job post training survey.

reflected the content of materials taught in the course, Appendix A. The researcher employed a test construction specialist to help in stating the achievement test items and in determining the quality of each item after a pilot study had been conducted.

The content validity of the criterion-referenced achievement test was determined by the jury method.[4] This method required a jury of management experts who were developing and conducting the training classes, to examine the items to be included on the testing instrument. The jury of experts agreed that the questions being asked were indicative of the content being taught in the training course.

Test-retest reliability of the achievement test was determined by comparing pilot study scores of participants who were given the test at the beginning of the course and again two weeks later. Comparison of the pre- and posttest scores was made by using a Kuder-Richardson Formula #8 correlation technique. Formula #8 was selected to obtain a reliability coefficient because it required an item analysis which provided an item-test coefficient for each item and the percentage of correct answers on each item. This procedure provided an additional control over the

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[4]Carter V. Good, Essentials of Educational Research (New York: Appleton-Century-Crofts Publishing Company, 1966), pp. 112-114.

internal validity of the test instrument.[5] By this method the pretest-posttest reliability of the instrument was established at 0.913.

Measures of Supervisory Attitudes

Participants' knowledge of supervisory practices and knowledge of supervisory skills was measured by using a norm referenced testing instrument, the How Supervise? test for administrators.[6] The How Supervise? test is comprised of 41 statements regarding company policies to which the respondent is asked to rate each policy as desirable, undesirable, or uncertain. The second part of the test is composed of 29 statements of opinions held by supervisors. Respondents are asked to agree, disagree, or indicate uncertainty about each of the opinions. A copy of the test instrument is shown in Appendix B.

Validity of the How Supervise? was established by relating respondents' scores to proficiency ratings made by their superiors. These correlation values ranged from a low of r=0.29 to a high of r=0.79.[7]

Reliability of the How Supervise? instrument is reported by the authors as ranging from r=0.74 to r=0.91.[8]

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[5]M. W. Richardson and G. F. Kuder, "The Calculation of Test Reliability Co-efficients Based Upon the Method of Rationale Equivalence," Journal of Educational Psychology (1939), pp. 681-687.

[6]Q. W. File and H. H. Reemers, How Supervise? Manual (New York: The Psychological Corporation, 1948).

[7]Ibid., p. 9.

[8]Ibid., p. 7.

This norm-referenced test has undergone two major revisions and is considered one of the better screening devices of supervisory personnel.[9]

The Measure of Supervisory Style

An on-the-job rating of supervisory style was accomplished by making pretest and posttest ratings of participants selected for the study. A Supervisory Style Survey, shown in Appendix C, was developed to measure any changes in supervisory style effected by the management training course. The program director, AFLC administrators, and training consultants reported the most important areas of supervisory style, and a test construction specialist performed an item analysis of the results. The 25 areas appearing on the final instrument were regarded as the most valid areas of supervisory style which could be evaluated by external perception. The instrument was completed by the participants' supervisors after they had completed the training program.

Validity of the instrument was established by performing a coefficient of concordance on the consultants' ratings of the supervisory areas.[10] The obtained coefficient of validity was W=0.659.

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[9]Oscar K. Buros, The Sixth Mental Measurements Yearbook, ed., (Highland Park, N.J.: The Gryphon Press, 1965), p. 76.

[10]Kendall's Coefficient of Concordance, W. The size of this coefficient indicates that there is positive agreement among the six judges in the ranking of the twenty-four areas concerned.

Test-retest reliability of the Supervisory Style Survey was determined by two administrations of the instrument to 40 first-level supervisors. The Kuder-Richardson Formula #8 correlation was determined to be r_{tt}=0.917 between participants' pretest and posttest ratings.

Experimental Procedures

The next area of methods and procedures consisted of the actual experimental treatment to occur during the management training program. These procedures are explained in the following sections.

Conducting the Training Program

The training program consisted of a 12-day "Principles of Supervision" course. Each class was comprised of 20 students. The training schedule for the first quarter of fiscal year 1978 is presented in Figure 2.

To conduct the training program, five instructors representing five higher educational institutions provided instruction for participants 6½ hours per day for 12 days, a total of 75 hours of instruction. During this 12-day period, participants received instruction in the areas suggested in Figure 3. A resume of the training program is presented in Appendix D.

Data Collection

Data were collected before, during, and after the 12-day management training program. Prior to the training program, administrators were asked to complete the Supervisory Style

Management Training Center — **TRAINING SCHEDULE** — **1st Quarter**

| | | OCTOBER | | | | | | | | | | | | | | | | | | | | | | | | | NOVEMBER | | | | | | | | | | | | | | | | | | | | | | DECEMBER | | | | | | | | | | | | | | | | | | |

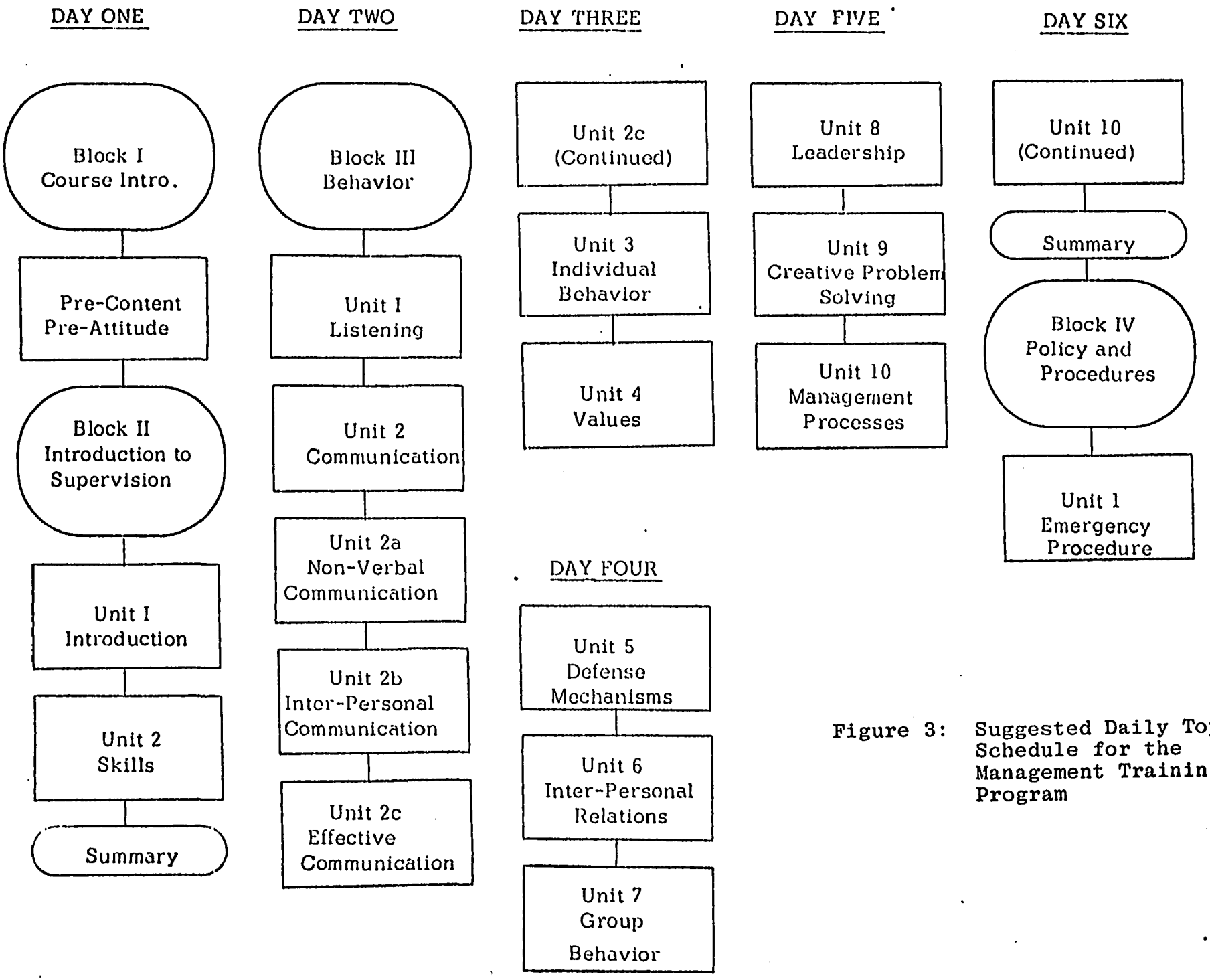

Figure 3: Suggested Daily Topic Schedule for the Management Training Program

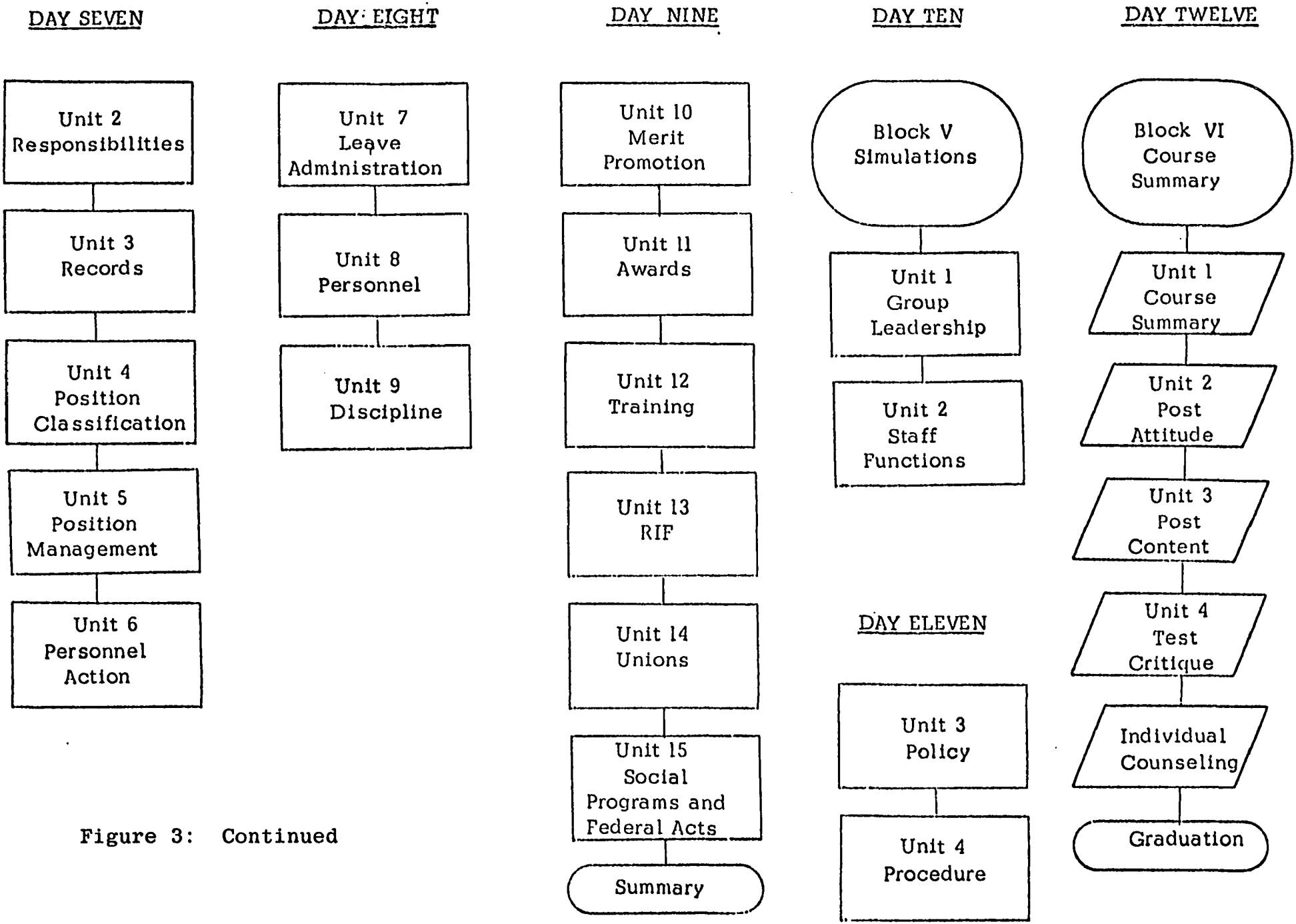

Figure 3: Continued

Survey on 33 selected first-level supervisors. This was considered the pretest measure of supervisory style. Administrators were asked to make a second (posttest) rating of the same supervisors' style after 6-weeks following their completion of the management training program. Differences between the pretest and posttest ratings were regarded as the result of the training program.

The Course Content Survey (criterion-referenced achievement test), and the How Supervise? (measure of supervisory skills and attitudes) were administered on a pretest-posttest basis with the first administration occurring during the first day of the program and the posttest administration being completed on the final day.

Data Analysis Procedures

The final area of methods and procedures was the data analysis procedures. Analysis of the data began with the collection of the pretest measures and was concluded after the hypotheses were tested.

The first null hypothesis was tested by comparing the participants' pretest and posttest attitude scores taken from the How Supervise? test presented in Appendix D. A statistical comparison was made by using a Wilcoxon T test for correlated rank-order data.

The Wilcoxon T test statistic was selected because it is a distribution-free statistical test. A nonparametric statistic makes no assumptions about the precise form of the sampled

population. In this study it was not certain that the underlying assumptions prerequisite to parametric testing could be met. The primary assumption for parametric testing being that it implies a normal distribution of the parameter.

Bradley gives a detailed listing of the advantages and disadvantages of distribution-free statistical tests.[11] Some of the major points he makes are:

1. Simplicity of derivation--classical test derivation requires a level of mathematical competence higher than the level attained by the typical research worker.

2. Ease of application--usually only counting, or adding, subtracting, and ranking are required functions.

3. Speed of application--when working with small samples, distribution-free methods are generally faster than parametric techniques.

4. Scope of Application--because they are based on fewer and less elaborate assumptions than classical tests, distribution-free tests can be applied to a much larger class of populations.

5. Effect of Violations of Assumptions--the assumptions are fewer and less elaborate with nonparametric tests and are less susceptible to violation. Violation of assumptions are easier to detect with nonparametric tests.

6. Influence of sample size--when sample sizes are small, i.e., $\leq$ 10, distribution free statistical tests are easier and quicker to administer. Since violation of parametric assumptions are most devasting for small samples, nonparametric tests are most appropriate.

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[11] J. N. Bradley, Distribution-Free Statistical Tests, (Englewood Cliffs, N.J.: Prentice-Hall) 1968, pp. 17-62.

7. Robustness--practically any violation of a parametric tests assumptions alters the distribution of the test statistic and changes the probabilities of Type I and Type II errors.

The second null hypothesis was tested by comparing the participants' pretest and posttest measures of supervisory style as taken from the Supervisory Style Survey presented in Appendix C. This hypothesis was also tested by using a Wilcoxson T test for correlated rank-order data.

The third null hypothesis was tested by comparing the participants' pretest and posttest measures of supervisory knowledge as taken from the Course Content Survey.

The fourth null hypothesis was tested by correlating the participants' pretest-posttest attitude change scores with their pretest-posttest supervisory knowledge change scores.

Additional analyses were conducted if it became necessary and proper to do so in order to fully explain the results of the study and to test the hypotheses stated in Chapter I.

Hypotheses Tested in the Study

The following hypotheses were tested.

Ho_1 There is no statistically significant difference between the participants' pretest and posttest attitude scores as measured by the How Supervise? inventory as a result of the supervisory training program.

Ho_2 There is no statistically significant difference between the participants' pretraining and posttraining supervisory behavior as measured by the Supervisory Style Surveys as a result of the management training program.

Ho_3 There is no statistically significant difference between the participants' pretest and posttest measures of supervisory knowledge as measured by a 100-item content test as a result of the supervisory training program.

Ho_4 There is no statistically significant relationship between the participants' attitude scores as measured by the How Supervise? inventory and their supervisory knowledge as measured by a 100-item content test.

CHAPTER IV

RESULTS OF DATA ANALYSIS

Twenty-five first-level civilian supervisors at an Air Force Logistics Center acted as subjects to determine the effects of a 12-day supervisory training program on their attitudes, supervisory behavior, and supervisory knowledge. Three instruments: (1) How Supervise?, (2) Supervisory Style Survey; and (3) Course Content Survey were administered to the participants on a pretest-posttest basis. Pretest-posttest change scores from these results were used to test four null hypotheses. This chapter contains the results of making these comparisons.

Results of Testing Hypothesis Number One

The first null hypothesis tested was stated as follows:

Ho_1 There is no statistically significant difference between the participants' pretest and posttest attitude scores as measured by the How Supervise? Inventory as a result of the supervisory training program.

The first null hypothesis was tested by comparing the 25 participants' pretest and posttest scores on the How Supervise? Inventory. A Wilcoxon's Matched-Pairs Signed-Ranks Test was used to make the comparison. Results of the

calculations are presented in Table 1.

The data presented in Table 1 show that there was a significant difference at the .01 level of confidence between the participants' pretest and posttest attitude scores as a result of their having participated in the supervisory training program. Attitudes changed significantly following participation in the supervisory training program.

Results of Testing Hypothesis Number Two

The second null hypothesis tested was stated as follows:

Ho_2 There is no statistically significant difference between the participants' pretraining and posttraining supervisory behavior as measured by the Supervisory Style Surveys as a result of the management training program.

The second null hypothesis was tested by comparing the 25 participants' pretest and posttest scores on the Supervisory Style Surveys. A Wilcoxon's Matched-Pairs Signed-Ranks Test was used to make the comparison. Results of the calculations are presented in Table 1.

The data presented in Table 1 show that there was a significant difference between the participants' pretest and posttest supervisory style scores. There was a significant change in the participants' supervisory style following their participation in the supervisory training program.

Results of Testing Hypothesis Number Three

The third null hypothesis tested was stated as follows:

Ho_3 There is no statistically significant difference between the participants' pretest and posttest measures of supervisory knowledge as measured by a 100-item content test as a result of the supervisory training program.

The third null hypothesis was tested by comparing the 25 participants' pretest and posttest scores on the Course Content Survey. A Wilcoxon's Matched-Pairs Signed-Ranks Test was used to make the comparison. Results of the calculations are presented in Table 1.

The data presented in Table 1 show that there was a significant difference between the participants' pretest and posttest course content scores. There was a significant improvement in the participants' supervisory knowledge as a result of their having participated in the supervisory training program.

Results of Testing Null Hypothesis Number Four

The fourth null hypothesis was stated and tested as follows:

Ho_4 There is no statistically significant relationship between the participants' pretest-posttest attitude change scores as measured by the How Supervise? inventory and their pretest-posttest supervisory knowledge change scores as measured by the Course Content Survey.

The fourth null hypothesis was tested by computing a correlation coefficient between the participants' pretest-posttest attitude change scores and their pretest-posttest supervisory knowledge change scores. A Spearman Rho technique was used to find if a correlation coefficient existed. The Spearman Rho technique is particularly well-suited to situations where the number of cases is 25 to 30 or less. The change scores used in the calculations appear in Tables 3, 4, and 5 of Appendix E. The results presented in Table 2 show that there was not a significant relationship between the participants' pretest-posttest attitude change scores and their pretest-posttest supervisory knowledge change scores ($rho=0.0419$; $p > .05$).

Summary of Results

Results of testing the four null hypotheses may be summarized as follows:

(1) There was a statistically significant improvement in the participants' pretest-posttest attitude scores as a result of the supervisory training program.

(2) There was a statistically significant improvement in the participants' supervisory behavior (style) as a result of their having participated in the supervisory training program.

(3) There was a statistically signficant improvement in the participants' level of supervisory knowledge as a

result of their having participated in the supervisory training program.

(4) There was not a statistically significant relationship between the participants' attitude change scores and their supervisory knowledge change scores.

TABLE 1

THE RESULTS OF COMPARING THE PARTICIPANTS' PRETEST-POSTTEST CHANGE SCORES[1]

	Attitude Change	Supervisor Behavior Change	Achievement Change
Median =	8	.6	8
Range =	-9 to 23	1.6 to 1.5	-12.5 to 16
R (+) =	318.5	202	311.5
R (-) =	41.5	40.5	12.5
T =	P<.01	P<.01	P<.01

[1]Wilcoxon's Matched-Pairs Signed-Rank test of significance is the distribution-free statistical test used for these calculations. At the .01 level of confidence the null hypotheses were rejected.

TABLE 2

CORRELATION BETWEEN THE PARTICIPANTS' PRETEST-POSTTEST ATTITUDE CHANGE SCORES AND THEIR PRETEST-POSTTEST SUPERVISORY KNOWLEDGE CHANGE SCORES [1]

Attitude Change Scores	Supervisory Knowledge Change Scores
Median = 8	Median = 8
Range = -9 to 23	Range = -12.5 to 16

Rho (p) = 0.0419; N = 25; P>.05

[1]The Spearman Rank-Order Correlation Coefficient (Rho) for situations where the number of cases is 25 to 30 or less is the statistic used in this calculation. The null hypothesis was accepted at the .05 level of significance.

CHAPTER V

SUMMARY, CONCLUSIONS AND IMPLICATIONS FOR FURTHER RESEARCH

Twenty-five, first-level civilian supervisors at an Air Force Logistics Center acted as subjects to determine the effects on their attitudes, supervisory behavior, and supervisory knowledge. Three instruments: (1) How Supervise?, (2) Supervisory Style Survey, and (3) Course Content Survey were administered to the participants on a pretest-posttest basis. Pretest-posttest change scores from these results were used to test four null hypotheses. This chapter contains the results of making these comparisons.

Results of testing the four null hypotheses may be summarized as follows:

1. In view of their participation in a supervisory training program, there was a statistically significant increase in scores in the participants' pretest-posttest attitude scores,

2. In view of their having participated in the supervisory training program, there was a statistically significant increase in scores in the participants' supervisory behavior,

3. There was not a statistically significant relationship between the participants' attitude change scores and their supervisory knowledge change scores.

Implications and Discussion

This investigation explicitly was directed at three components of training effectiveness. First, did in-class learning occur in relation to specific knowledge? Second, was there evidence of attitude change in the desired direction, and third, did learning translate into on-the-job behavior? As indicated in the summary of the test data there were positive indications of desired change occurring in all three areas. This can be viewed as indicative of internal and external validity concerning the training program. The main point in this investigation was to objectively demonstrate on-the-job performance change and in-class learning as the result of a criterion developed training program.

Evaluation of training is an integral part of the training program. Specifically it is used as an administrative technique to assess the value or worth of training and provides the basis for sound decisions relating to improvement, change or abolition of various components of the program.

The following implications have direct relationship to the design of this investigation:

1. The training was based on a set of desired outcomes as defined by the committee recommending the overall training plan.
2. The outcomes were operationally defined as objectives in each topical area of instruction.

3. The objectives were developed as observable, measureable outcomes amenable to evaluation studies.
4. Provisions for evaluation were designed into the program from the beginning.
5. The evaluation measures and hypotheses tested were tied directly to the stated objectives of the program.

Findings and Conclusions

As a result of the above, this program has in effect been validated in the sense that it is supported by empirical evidence of its effectiveness. A significant increase in knowledge of managerial concepts is occurring based on the results of the Content Test and How Supervise Inventory pre and posttest data. Pre and posttest data gathered on Supervisory Style measurements indicate that the supervisors, while performing at an acceptable level prior to attending the program, are at a significantly improved level upon returning to the work site.

These findings appear to satisfy the recommendation of Campbell, Dunnette, and Kirkpatrick. That is, it is evident that the participants are assimilating the course material. Also, there is evidence of on-the-job behavior change. There remains the question of pretest contamination of the results as posed by Bunker and Cohen and its effect on the internal validity of the program. This will be addressed under designs for further research.

Implications for Further Research

The implications for further research are limited only by the imagination of the researcher. For example, there is little evidence of research being conducted in the following areas:

1. Effect of training on career development.
2. The degree of supportiveness the work environment lends to the training effort.
3. On-the-job behavior change as categorized by type of work, branch of organization, individuality of supervisor.
4. Effect the training of supervisors has on that supervisor's subordinates.
5. Effect training would have on rating of individual by peers and subordinates.
6. Effect training may have on individual value systems.

At the present time, at the Air Logistics Center, there is an on-going examination of indicators of organizational performance. This examination is premised on the assumption that the end result of training activity should be an improvement in the overall performance of the organization. It is extremely difficult to show any cause and effect relationship between managerial/supervisory training and indicators of organizational performance. Additionally, organizational performance in a governmental activity is difficult to measure

because of the nature of the work and the lack of profit calculations. However, it is possible to track certain behavioral indicators such as:

a. Employee Sick Leave
b. Employee Disabling Injuries
c. Employee Complaints
d. Grievances and Appeals Filed
e. Numbers of Congressional Inquiries
f. Disciplinary/Adverse Actions

By establishing a base line, or historical data for the above indicators, a profile of past experience is established. This is then compared on an ongoing basis with current profiles since the beginning of the training program. This again emphasizes external validity.

Not only do variables make it difficult to arrive at positive conclusions but they also make it easy to overlook other factors that can lead to erroneous conclusions. For example, what effect do position descriptions have on promotion probability? Aside from the possible effectiveness of training, how does one stratify trainees in terms of their organizational functions?

Looking at individuality, i.e., personality, value systems, etc., it becomes apparent the interation of personality characteristics with on-the-job behavior makes it difficult to demonstrate the success of the organization in

terms of a particular managerial theory. What is the effect on behavior of exposure to a particular theory by a particular personality?

Although pretesting is a preferred method for establishing control in evaluations it also is an area of concern relative to internal validity. Research indicates that when a pretest either gives rise to learning or stimulates the individual to recall past learning, pretesting may artifically inflate or depress subsequent posttest scores.[1]

Proposed Design for Further Evaluations

A proposed design for further evaluation of the training program is to expand the traditional two-group design to include two additional unpretested control groups as outlined in the Solomon four group design i.e.[2]

Group I

Pretested - Trained - Posttested

Group II

Pretested - Untrained - Posttested

Group III

Unpretested - Trained - Posttested

Group IV

Unpretested - Untrained - Posttested

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[1]Doris Entwisle, Interaction Effects of Pretesting, Educational and Psychological Measurement, 1961, Vol. 21, p. 607-620.

[2]R. L. Soloman, "An Extension of Control Group Design", Psychological Bulletin, 1949, 46, pp. 137-150.

Campbell and Stanley discuss as one of eight factors jeopardizing internal validity the effects of taking a test upon the scores of a second testing.[3] In general, there is the possibility of a "reactive" effect, i.e., the second testing will produce higher scores even without an intervening training period. This effect can be expected if the test is itself a stimulus to change rather than a passive record of behavior.[4] The above proposed testing procedure controls this problem in that testing and non-testing is equally balanced between the experimental and control groups, thus the procedure enhances the internal validity considerations of the evaluation process. Continued improvement in the evaluation of training programs is the basis for meeting individual and organizational needs and in imposing the cost effectiveness of the training function.

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[3]Donald T. Campbell and Julian C. Stanley, Experimental and Quasi-Experimental Designs for Research, (Chicago: Rand McNally College Publishing Company, 1963), p. 5, 9.

[4]Ibid, p. 9.

APPENDIX A

Course Content Survey
(Achievement Test)

COURSE CONTENT SURVEY

1. Perhaps the most important result of good organization is that it assures
   a. better working relationships in the unit.
   b. better success for the unit supervisor.
   c. safer working conditions in the unit.
   d. better utilization of personnel, money and materials.

2. A supervisor is expected to:
   a. socialize with subordinates, and be nice to them.
   b. give orders and get the job done.
   c. get the job done through others.
   d. punish subordinates who break the rules.

3. The successful supervisor can be primarily characterized as
   a. one who can accurately assess the forces that determine what his/her most appropriate style should be, and behaves accordingly.
   b. a strong leader under all circumstances.
   c. one who rightfully views problemsof leadership as a dilemma.
   d. views all authority as a two-way concept.

4. Supervisors in the exercise of authority:
   a. have as much authority as they can get away with.
   b. are completely subjected to acceptance by their subordinates.
   c. are restricted only by restrictions placed on them by governmental agencies, local, state, and federal.
   d. should be aware of various limitations influencing their ability to exercise authority.

COURSE CONTENT SURVEY

5. Accepting a supervisory position was probably in fulfillment of your personal goals, you should recognize that:

   a. acceptance means that you are taking on all the responsibilities of leadership and mission accomplishment that go with the position.

   b. the duties and responsilibities are so structured that you will have little difficulty staying out of trouble.

   c. you will still be able to be a close friend with all your team members and they will see that you get the job accomplished.

   d. acceptance means that you answer only to your supervisor and can operate as you choose since you are now a member of management.

6. Individuals who seem to be having repeated difficulty in one area of their job are probably:

   a. reacting to the symptom of a problem rather than identifying the source or problem itself.

   b. just that way and will rarely ever change.

   c. so oriented to doing things one way that they cannot adjust to change.

   d. very knowledgeable individuals who can rapidly analyze and solve all problems in their heads.

7. You have just assumed the position of supervisor. Your second week on the job, Ronnie Williams, one of your employees sitting across from you is speaking excitedly. He keeps talking about "this terrible problem...we'll be in trouble...what will HQs say...what are you going to do?" Your first task is to:

   a. insist that he not become so personally involved and excited.

   b. politely dismiss his emotional comments as he is probably over-reacting to an insignificant event.

   c. allow him to "blow off steam" and as he settles down begin to help him identify and examine the problem.

   d. suggest some possible alternatives in a precise manner and wait for a positive reaction on his part.

8. Which of the following statements is accurate regarding the relationship of authority and responsibility?

   a. Both authority and responsibility may be delegated.

   b. Equal measures of authority and responsibility should be delegated.

   c. Responsibility but not authority may be delegated.

   d. Authority may be delegated while responsibility must be retained.

COURSE CONTENT SURVEY

9. The primary responsibility of every supervisor is

   a. developing cooperation.

   b. maintaining accurate records and reports.

   c. training and developing subordinates.

   d. getting production.

10. The leadership continuum (Tannenbaum-Schmidt) emphasizes the fact that the successful leader is one who is:

   a. is characterized by authoritative rather than permissive characteristics.

   b. behaves appropriately in light of the total forces at work.

   c. is autocratic in achieving the 9,9 posture illustrated on Blake's Managerial Grid.

   d. always patterns his behavior at the center of the leadership continuum.

11. The Problem-Solving Process is a procedure which the supervisor should use to:

   a. define a problem, then immediately make a decision.

   b. implement changes in policy.

   c. get acceptance of key personnel with regard to his/her solutions to problems.

   d. approach a problem in a logical manner, organizing his/her efforts toward reaching a proper solution to that problem.

12. One of your employees, who supervises a shift of workers for you, has asked you to formally reprimand an employee. You are aware that there is friction between these two people, although job efficiency has not decreased. Based on problem-solving techniques, what is your next step?

   a. reprimand the employee as asked.

   b. talk to the one who is to be reprimanded.

   c. get more facts before taking any action.

   d. transfer one of the subordinates involved.

13. Authority exercised by a supervisor generally can be explained in terms of:

    a. formal authority theory.

    b. acceptance theory.

    c. both a and b.

    d. none of the above.

14. Styles of supervisory leadership are influenced by

    a. nothing except the desires of the supervisor.

    b. only forces influencing the situation.

    c. only expectations of the subordinates.

    d. forces in the supervisor, the subordinates and the situation.

15. Responsibility:

    a. is a personal obligation.

    b. may be delegated and subdelegated.

    c. has no meaning except as applied to buildings, machines, or animals.

    d. has no meaning except for high level management.

16. In which of the following is the Federal Wage System similar to the General Schedule System?

    a. the principle that there is basically equal pay for equal work.

    b. the geographical scope of pay applicability.

    c. the authority for the particular pay scale.

    d. the type of work included in the systems.

COURSE CONTENT SURVEY

17. According to Air Force Policy, if an employee is not satisfied with the classification of their position, they may:

    a. file a grievance with their supervisor.

    b. demand a reclassification of their position.

    c. file a formal appeal with the Civil Service Commission.

    d. as well accept it, there's nothing they can do about it anyway.

18. In conducting an appraisal discussion, the supervisor should:

    a. Cover only those areas where improvement is indicated, explaining exactly what the employee is expected to do to improve.

    b. Try to complete the review with as little discussion as possible so the employee can return to work.

    c. Be willing to listen and consider the employee's input even when it may change the supervisor's planned outline for the discussion.

    d. Cover in detail how the employee performed during the rating period, both good and bad, and tell the employee in no uncertain terms what happens if they don't improve.

19. In the broadest sense of line-staff relationships, individuals like the personnel management specialist or labor relations specialist are:

    a. in the organization to serve only the upper levels of management.

    b. prohibited from answering questions outside of the line.

    c. there to collect and compile statistical data for headquarters.

    d. staff advisors providing assistance to all levels of the organization.

20. If an employee is not performing as he/she should, the supervisor should

    a. counsel the employee.

    b. document the employee's 1152.

    c. report the employee to personnel.

    d. detail the employee to another job.

COURSE CONTENT SURVEY

21. The three types of performance ratings are:

    a. poor, average, good.

    b. below average, satisfactory, above average.

    c. fair, satisfactory, outstanding.

    d. unsatisfactory, satisfactory, outstanding.

22. A performance standard should be based on:

    a. duties and responsilibities assigned in the position description.

    b. supervisor's job experience.

    c. general Air Force mission requirements.

    d. the various job elements as defined in the CSC Classification Manual.

23. All performance standards as defined by TAFB policy must include:

    a. Quality of work; Quantity of work; Adaptability; and Working Relationships.

    b. Quality of work; Quantity of work; Leadership; and Planning and Organizing Ability.

    c. Quality of work; Quantity of work; Adaptability; and Leadership.

    d. Quality of work; Quantity of work; Adaptability; and Problem-Solving Ability.

24. Performance standards must be in writing when

    a. the employee wants them in writing.

    b. any rating other than a satisfactory rating is to be given.

    c. transferring an employee.

    d. a new position is created.

COURSE CONTENT SURVEY

25. Which of following is an advantage of the line-and-staff type of organization?

    a. greater flexibility.

    b. line supervisors are not burdened with so much detail.

    c. specialist personnel are available to assist and advise line personnel.

    d. all of the above.

26. The supervisor who attempts to lead by strict and absolute adherence to the "Book" and does not tolerate any disagreement about how a job should be done is likely to find employee commitment:

    a. low because there is no sense of contribution to the operations of the organization.

    b. high since they really know who is boss.

    c. high because strict discipline fosters high morale.

    d. low because the promotion system is based on who you know, not how well qualified you are.

27. Which of the following statements best reflects the supervisors' responsibilities in the area of position management?

    a. To insure that all position descriptions in the work unit accurately reflect the current duties and responsibilities of each position.

    b. To review all position descriptions periodically for accuracy.

    c. To insure that there is a position description on file for all positions in the work unit.

    d. To notify the next higher level supervisor whenever there is a change needed in a position description.

28. The Factor Evaluation System differs from the Traditional System of classifying a position. Which of the following is required for the Factor System but not by the Traditional System?

    a. duties must be listed.

    b. supervisory controls are listed

    c. a point scale is used to determine grades.

    d. the supervisor must certify that the position description is accurate.

COURSE CONTENT SURVEY

29. "Traditional" position descriptions are best characterized by the fact that:

    a. they are general outlines of the duties and responsibilities of a position.

    b. they are guidelines to the performance required in that position.

    c. they list all of the duties and responsibilities that are performed in the postion a substantial part of the time.

    d. they must detail exactly what is to be done in that position, specific major duties are detailed, and performance standards must be included.

30. When requesting training on the AF 1152, Civilian Development Record, the supervisor:

    a. is not concerned with the evaluation of the training.

    b. should select trainees by service computation date.

    c. should specify how the training will be evaluated.

    d. must always obtain prior approval of the Civilian Personnel Office.

31. Performance Standards should develop:

    a. mutual understanding of the duties to be performed.

    b. duties performed in similar jobs at other facilities.

    c. what the employee thinks his/her duties are to accomplish.

    d. the last rating the employee received.

32. If a new supervisor should lack understanding of performance standards, his/her chief should explain that the objective of standards is to:

    a. develop a common understanding of what is expected of the employee in terms of specific accomplishments.

    b. establish a plan for career development.

    c. set up an appropriate pattern of discipline.

    d. establish the major duties to be performed by that individual.

COURSE CONTENT SURVEY

33. Before you can assign an unsatisfactory rating to one of your employees, you must give him/her a warning notice which states:

    a. performance standards or other job requirements the employee is failing to meet satisfactorily.

    b. what the employee must do to bring his/her performance up to a satisfactory level.

    c. what efforts you will make to help him/her.

    d. the notice must state all of the factors named above.

34. The first step in the establishment of performance standards should be:

    a. determine the task or major factors.

    b. talk with the employee to determine which standards are applicable to his/her area.

    c. engage the employee in setting standards.

    d. talk with managers in other facilities to see how they set individual performance standards.

35. Who is responsible for writing position descriptions and keeping them current?

    a. the supervisor.

    b. the position classifier.

    c. the personnel officer.

    d. the operations officer.

36. The classification of a position is based on

    a. the qualifications of the individual.

    b. the duties assigned to the position.

    c. the duties assigned and the qualifications of the individual.

    d. its position on the organizational chart.

COURSE CONTENT SURVEY

37. An employee who significantly exceeds the normal requirements in each aspect of their position would probably be most eligible for which of the following?

a. Outstanding Performance Rating.

b. Sustained Superior Performance Cash Award.

c. Special Act Cash Award.

d. Quality Salary Increase.

38. The Air Force Privacy Act Policy toward individual records is that:

a. individuals should be protected from unwarranted invasion of privacy.

b. records can be collected for any purpose but released only for official reason.

c. all data collected is compiled in chronological order so an individual history can be maintained.

d. an individual can immediately see all records kept on him/her at any time.

39. Which of the following is the first consideration a supervisor should give to the selection of an employee for training?

a. how much the training will cost.

b. who is conducting the training.

c. is the training a self-help program, or a formally conducted training program.

d. will the training improve the employee's efficiency.

40. A Spanish-American employee of yours has been behaving in a manner which causes you to consider giving her a written reprimand. She previously had filed, and been upheld by the courts in a formal discrimination suit. In light of EEO concepts, your best course of action is:

a. withhold a written reprimand, consider oral admonishment.

b. consult with the personnel specialist to determine if your action may result in a discrimination suit.

c. if the employee's conduct warrants it, give her a letter of reprimand.

d. initiate the letter of reprimand, but only if it will not result in a formal discrimination complaint.

COURSE CONTENT SURVEY

41. Which of the following items is given credit in the Merit Promotion Program because of documents prepared by the supervisor?

    a. employee's appraisal.

    b. employee's experience before entry into Federal Service.

    c. employee's suggestions awarded $50.

    d. employee's nonwork experience of his/her entry into Federal Service.

42. Which one of the following items is called a Secondary Ranking Factor?

    a. experience.

    b. appraisals.

    c. awards.

    d. education.

43. In which of the following circumstances may education be considered as part of the Merit Promotion Plan?

    a. for entry positions.

    b. as substitute for experience for GS grade below GS-12.

    c. for positions above GS-12.

    d. all of the above.

44. In the Merit Promotion Program, certain candidates are considered as mandatory placement eligibles, these include:

    a. employees who have worked in a Civil Service position before.

    b. employees who have not been selected from previous lists.

    c. employees whose positions have been abolished or employees who have reemployment rights when returning from overseas assignments.

    d. employees who have threatened to file grievances if they are not selected.

45. Constructive discipline, as defined by Air Force policy, means that:

    a. disciplinary action should be taken for every infraction of rules.

    b. if you make an example of employees who violate the rules in a fair but strict manner, you will have fewer problems.

    c. only that action necessary to correct behavior should be used.

    d. you must follow a relaxed policy of enforcing disciplinary actions.

46. Who has the basic responsibility for discipline of TAFB employees?

    a. immediate supervisors.

    b. division chiefs.

    c. personnel officers.

    d. branch chiefs.

47. The current trend in discipline is

    a. increased use of disciplinary penalties.

    b. discontinuation of the use of disciplinary action.

    c. the use of negative discipline.

    d. the use of positive or constructive discipline.

48. A supervisor who is considering disciplining one of his/her employees, should make sure that the intended action is:

    a. suitable for the offense and is expected to prevent recurrence.

    b. mild enough that the employee will not consider filing a grievance.

    c. observed by all concerned.

    d. harsh enough to set an example.

COURSE CONTENT SURVEY

49. The purpose for which you as a supervisor are given disciplinary discretion is to:

a. punish the individual who commits a serious breach of regulations or good conduct.

b. set an example for others by showing that unacceptable behavior or work will be punishable.

c. serve as a training or corrective measure to establish and maintain good standards of work performance.

d. document an employee's misconduct or poor performance before initiating removal action.

50. Once a sick leave abuse problem has been identified, the supervisor should:

a. deny any further use of sick leave.

b. require a medical certificate for any sick leave used.

c. turn the employee in to the Civilian Personnel Office.

d. require the employee to use annual leave in place of sick leave.

51. The Incentive Awards Program is designed to

a. increase production.

b. recognize employees for their contributions.

c. draw upon the experience and intelligence of employees.

d. all of the above.

52. Your principle reason for selecting a subordinate for training is that:

a. he/she wants it and is enthusiastic about his/her work.

b. he/she can be spared at the time.

c. the training will help him/her qualify for promotion.

d. his/her increased skill will help meet an objective of your organization.

COURSE CONTENT SURVEY

53. Which one of the promotions listed below is considered a competitive Merit Promotion? A promotion

a. due to accretion of the selectee's job.

b. of an individual applying in response to an announcement.

c. of an individual who has previously been downgraded from a similar position through no fault of his/her own.

d. of a medically disabled employee.

54. A sick leave problem probably exists when the employee's sick leave record indicates

a. he has no sick leave left.

b. absence before pay days.

c. a pattern of absences.

d. absence during a particular season of the years.

55. Sick leave becomes available for use

a. at the beginning of the pay period during which it is earned.

b. at the end of the pay period during which it was earned.

c. after the first 90 days of service.

d. after the first 120 days of service.

56. Which of the following is not a supervisory responsibility in the administration of leave?

a. Insuring all absences from duty are charged to leave.

b. Establishing yearly leave schedules.

c. Determine what type of leave an employee must take.

d. Brief employee on foreign travel while in leave.

COURSE CONTENT SURVEY

57. When recommending an employee for an award recommendation, the supervisor must

a. rewrite the job performance standards.

b. compare the employee's actual performance with the performance standard.

c. compare the position description with the performance standards.

d. discuss the recommendation with the employee.

58. Supervisors at all levels play a key role in labor relations. In the grievance procedures, the key management spokesperson at the initiating level of a grievance is normally:

a. the first-level supervisor.

b. the second-level supervisor.

c. the unit chief discussing the problem with the union representative.

d. the division chief.

59. If a new employee asks you, at the local bar, for advice on whether or not to join a union, you should:

a. present the pros and cons on both sides as accurately and objectively as possible.

b. make your recommendations only during non-duty hours and away from the work location.

c. tell him to join the union if he feels there is anything in it for him/her.

d. not offer him/her advice or counsel one way of the other.

60. In the application of the grievance procedures, more grievances are won by the employees because:

a. they were right in the first place.

b. they probably had a sharp union representative.

c. they are allowed representation and the supervisor is not.

d. lack of proper documentation of the facts by the supervisor.

COURSE CONTENT SURVEY

61. Supervisors should treat all grievances as though they were sure to result in arbitration. This means that:

    a. the supervisor needs to keep records of investigation on only the grievances that were granted.

    b. the supervisor needs to keep records of investigation on only the grievances that were denied.

    c. the supervisor needs to keep records of investigation on all grievances.

    d. the supervisor may wait until the arbitration hearing and depend on his/her memory to collect the facts of the case.

62. A new employee has just reported to you. He/she asks if he/she must join the union in order to be represented by the union. Your response should be:

    a. yes, since the union is the exclusive representative.

    b. no, but if he/she chooses not to join, the union has no obligation to him/her.

    c. no, since he/she is included in the bargaining unit, the union must represent him/her in the same manner they would a union member.

    d. he/she cannot join the union until either the expiration of the current contract or the negotiation of a new agreement.

63. A discrimination complaint can be filed by:

    a. any member of a minority group.

    b. any employee who has no supervisory responsibilities.

    c. any employee who feels discriminated against.

    d. any employee after he/she has notified his/her immediate superior.

64. Executive Order 11491, as amended, specifies that every negotiated agreement must contain:

    a. a statement of union responsibilities and rights.

    b. a negotiated grievance procedure.

    c. a negotiated clause that indicates who will be represented by the union.

    d. a detailed list of Unfair Labor Practices to insure full understanding by all parties to the agreement.

65. Union XYZ is the exclusive representative for the employees in your unit and has a contract with a negotiated grievance procedure. One of your employees seeks to present his/her grievance by himself/herself, on an item covered by the agreement. He/she asks you if he/she can do it and which procedure he/she should use, the negotiated procedure or the agency procedure. Your response should be:

    a. he/she may not present his/her own grievance.

    b. he/she may present it, but he/she must use the negotiated procedure.

    c. he/she may present it, but he/she must use the agency procedure.

    d. he/she may present it, but he/she can use either procedure.

66. Every effort should be made to settle grievances at which stage?

    a. the earliest possible stage.

    b. the court of last resort.

    c. the top management level.

    d. at about three levels above the immediate supervisor.

67. An order comes out from top management. The supervisor and his/her employees do not like the order. Normally, the supervisor should:

    a. find out the reasons for the order if possible, explain the reasons to them and support the order.

    b. go to top management officials and tell them that the order is no good.

    c. tell them that you do not like the order, but that they will have to follow the order.

    d. show them that you are on their side by griping about the order along with them.

68. If an employee comes to you with a complaint, you should first

    a. listen without agreeing or disagreeing.

    b. agree with him/her.

    c. argue with him/her.

    d. point out to him/her that you will listen, but that you do not agree with him/her.

COURSE CONTENT SURVEY

69. A supervisor observing an argument between two employees may better understand what is being said than those arguing because he/she:

a. is more knowledgeable.

b. has a better understanding of the situation.

c. is more experienced.

d. is not emotionally involved.

70. Effective listening:

a. is taught in school and continually practiced in our day-to-day contacts with others.

b. is not taught in school, but one may become an effective listener with little effort.

c. is an active process requiring continuous, conscious effort.

d. means always being available to hear your employees' problems.

71. Non-verbal communication:

a. is not a factor in providing feedback.

b. is an effective communication tool which cannot be incorrectly interpreted.

c. may appear to be in conflict with the oral message being sent.

d. is unaffected by cultural differences.

72. Communication is effective if:

a. the message is well-organized.

b. the message has reached the intended receiver.

c. the receiver responds to the message as desired by the sender.

d. the message is written so the receiver can carefully read the complete message.

COURSE CONTENT SURVEY

73. Which one of the following statements concerning non-verbal communication is correct?

a. People from one culture may feel uncomfortable when communicating with someone from another culture if their space needs are different.

b. Body language may transmit a person's feelings and attitudes without that person's knowledge.

c. A shift in position, a raised eyebrow, and nervous behavior are forms of communication.

d. All of the above.

74. The essential elements of effective communication are:

a. need, receiver, and message.

b. sender, receiver, and communicator.

c. message, communicator, receiver and sender.

d. none of the above.

75. The communication flow within an organization:

a. should be a two-way process only, upward and downward, within the organization.

b. is always along the formal organization lines.

c. may include upward, downward, and horizontal (between peers) communication.

d. is not influenced by the "informal" organization.

76. Misunderstood communications:

a. are often the result of differing geographic areas, cultural backgrounds, or viewpoints.

b. are the result of advance preparation and practice.

c. cannot happen if both the sender and the receiver speak the same language.

d. cannot happen if the receiver is really listening to the message.

COURSE CONTENT SURVEY

77. One of your employees is not following your instructions. Your safest assumption would be that:

a. your communication was poorly transmitted or improperly recieved.

b. your communication was clearly given, but the employee was not listening.

c. the employee does not think your instructions are important.

d. the employee understood the instructions but did not remember them.

78. In order to have a well-informed organization and promote better communication, a supervisor should have group discussions with his/her personnel

a. when things are not working properly.

b. once a month.

c. as often as necessary to keep everyone well-informed.

d. when someone makes a mistake.

79. Which of the following is generally considered an obstacle to good communication?

a. giving orders which are clear.

b. answering letters promptly.

c. failure to listen properly.

d. supplementing oral instructions with written instructions.

80. Understanding one's own needs and approach to other people

a. is interesting if one has time, but cannot help a person become more effective in motivating others.

b. can help one understand why others behave as they do.

c. is an impossible task without special training in psychology.

d. is not important if one understands their supervisor's approach.

COURSE CONTENT SURVEY

81. Which of the following are examples of basic needs satisfaction?

a. Drinking a glass of water when thirsty.

b. Recognition for superior work performance.

c. Being accepted as part of your work group.

d. All of the above.

82. Which one of the following statements is correct?

a. The more a supervisor understands the employees' needs and points of view, the more effectively the supervisor and employees can work together.

b. If employees understand what work you expect them to do, there is no reason to be concerned about what needs they are seeking to satisfy.

c. If the supervisor is easygoing and pleasant and the working environment is fairly comfortable, the workers will be productive and satisfied with their jobs.

d. A stern, unyielding supervisor who "tells it like it is" can count on having cooperative, productive employees.

83. When communicating work assignments,

a. all employees will perform more and better work if the supervisor specifies each detail of the work to be done and exactly how the employee is to do it.

b. the supervisor should give the employee a general idea of the results expected, but should leave all details of how to complete the assignment up to the employee.

c. the supervisor should try to view the assignment from the employee's point of view, taking into consideration that employee's abilities and needs.

d. you, the supervisor, should make certain that the employee realizes you will be overseeing all of the work to insure that all details of the work are completed exactly as you have outlined.

84. The needs of an individual and how the individual attempts to satisfy these needs may be influenced by

a. the individual's supervisor.

b. the individual's cultural background.

c. the way in which the employee's needs were, or were not satisfied in the past.

d. all of the above.

COURSE CONTENT SURVEY

85. According to Maslow's Hierarchy of Needs:

a. people satisfy needs in an unpredictable manner.

b. once a need is reasonably satisfied, it is no longer a significant motivator.

c. only satisfied needs are motivators.

d. most people now operate at the self-actualization level.

86. Human Relations as defined in this course means that the supervisor (you) should do which of the following?

a. permit each employee to set his/her own goals and standards of behavior.

b. learn to recognize the needs of each individual and what conditions will permit the individual to do the best job.

c. learn to be thoughtful when dealing with personal matters affecting job performance.

d. learn to recognize the qualities of leadership in subordinates with the aim of discharging mediocre employees.

87. When an individual has unsatisfied needs, you may expect that individual

a. to work less, since they obviously cannot gain the satisfaction they seek from the job.

b. to attempt to satisfy those needs, either on the job or elsewhere.

c. to become a discipline problem.

d. to become the catalyst of the negative part of your workforce and attempt to disrupt the rest of the workforce.

88. If you observe an individual using some type of adjustment mechanism, you may conclude that:

a. it is abnormal behavior and shows defense mechanisms at work.

b. you may expect some kind of trouble from the individual.

c. it is natural and normal for individuals to resort to the use of adjustment mechanisms when need satisfaction is unattainable.

d. the individual has some abnormal needs which the individual is attempting to rationalize.

89. In terms of motivating employees, as supervisors you can motivate by:

    a. telling the employee exactly what will happen if they do not perform adequately.

    b. realizing that each employee operates at different speeds and letting each work at their own pace.

    c. detailing exactly what you want from the employee so that there can be no misunderstanding of what is expected.

    d. establishing an atmosphere where the individual can attain satisfaction for their needs, thereby motivating themselves.

90. When an individual uses adjustment mechanisms that are displayed in behavior actions, it is because:

    a. they have learned to compensate for their unsatisfied needs.

    b. that's just the way the individual is.

    c. they have satisified all of their needs.

    d. they do not care what people think about their actions.

91. If an employee who has been one of your more consistently excellent producers suddenly became loud and boisterous and distracts other workers, you might decide that the employee:

    a. is having problems at home that is affecting the employee's work.

    b. is on the verge of a mental breakdown due to overwork and needs some time off.

    c. may be only trying to get your attention, or maybe is seeking attention.

    d. has become unhappy in their job, and needs some time off to look for a new one where he/she can be happy.

92. You have an employee who is performing at a low level. When you talk with the employee about it, the reply is: "I don't know why you're talking to me, talk to Jack, it's his section that causes me to be slow." If there have been no problems from Jack's section, the employee is probably:

    a. correct in his assumption that it is a problem he can do nothing about.

    b. just not aware of the problems that are inherent in Jack's section, and should be a little more understanding.

    c. just overworked and you should attempt to get more employees for that area.

    d. trying to rationalize their inadequate performance and shift the blame to someone else.

93. What is the best approach a supervisor can take in dealing with a "negative group"?

a. Deliberately break up the group.

b. Make every effort to re-orient the group attitude.

c. Transfer the leader of the group.

d. Bring new members into the group to adjust the group's equilibrium.

94. The functions (or "roles") within a group

a. are assigned by the group leader or someone in authority who established the group.

b. cannot be consciously performed by the group.

c. are performed by various group members; some roles are essential if the group is to operate effectively.

d. may be seen to occur, but are unnecessary for effective task accomplishment.

95. The chief makes it known that the supervisor of work unit B has not been doing a good job lately. The members of unit B have been quick to defend their supervisor. This is an example of which group trait?

a. cohesiveness.

b. equilibrium.

c. internal status.

d. leadership styles.

96. As a supervisor, you recognize that small, informal groups do have leadership. A characteristic of this leadership is:

a. a group leader must always be selected before the group can work together effectively.

b. leadership of a group is normally assumed by that person with the most leadership traits.

c. leadership within a group serves group functions and is controlled by the group.

d. leadership in a group can be identified by observing which group members are most outspoken.

COURSE CONTENT SURVEY

97. Which of the following best characterizes a leader of a small informal group? The leader:

a. is in control and tells the group what to think and do.

b. maintains group respect through serving group functions ably.

c. is outgoing, full of pep and enthusiasm for group activities.

d. is looked up to by the group because of superior social or organizational position.

98. A small informal group is interfering in various ways with the accomplishment of an organizational objective. As a supervisor, your best approach would be to:

a. break up the group through shift changes.

b. call in the group and chastise them before reassigning some members to other shifts.

c. air the problem in the local base newspaper.

d. approach the leaders of the group with the problem being created.

99. Small groups which form naturally within your organization possess certain characteristics. One of these characteristics is that a:

a. group is made up of from 15-40 persons.

b. group is more formal than a large structured organization.

c. group may be neutral or could be either for or against organizational goals.

d. group is formed primarily for economic advantages it can gain for its members.

100. Group decision-making by consensus refers to:

a. agreement by all group members as to a course of action.

b. polling the group members to determine the view of the majority of those present.

c. the group leader announcing the decision.

d. agreement by all group members to support a group decision even though that decision may not be the one preferred by all the members.

APPENDIX B

How Supervise?

(Measure of Supervisory Practices,
Company Policies, and
Supervisor Opinions)

FORM A

HOW SUPERVISE?

QUENTIN W. FILE

Edited by H. H. REMMERS

[redacted]ices

The following is [redacted]isors. Some of these will seem desirable to you and [redacted] to how you would feel about putting such a p[redacted]

Draw [redacted]

1. Ask [redacted] ..... D ? U
2. Tr[redacted] ..... D ? U
3. Im[redacted] ..... D ? U
4. Te[redacted] ..... D ? U
5. Rec[redacted] ..... D ? U
6. Expla[redacted] ..... D ? U
7. Teachin[redacted] ..... D ? U
8. Making eff[redacted] ..... D ? U
9. Making an exam[redacted] ..... D ? U
10. Talking over ways of c[redacted] ..... D ? U
11. Prohibiting conversation between w[redacted] ..... D ? U
12. Explaining in detail all new rules and changes in policy to the workers concerned ..... D ? U
13. Giving discharged workers a full explanation of your reasons for asking that they be fired ..... D ? U
14. Putting a loud individual in place with a sarcastic remark ..... D ? U
15. Urging employees to handle their own problems without seeking advice from anyone ..... D ? U
16. Telling poor workers when their work isn't measuring up to what it should be ..... D ? U
17. Dividing overtime as equally as possible among all workers ..... D ? U

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Company Policies

The following is a list of the methods used by different companies in handling their relations with employees. Some of these methods will seem desirable to you and some undesirable. Please answer each item according to *your opinion* of its value in producing good employer-employee relations.

D desirable **?** uncertain **U** undesirable

Draw a circle around the answer which best expresses your opinion.

18. Asking the advice of labor leaders o... D ? U
19. Assuming responsibility for ... D ? U
20. Promoting employee re... ips ... D ? U
21. Basing all promot... D ? U
22. Allowing empl... D ? U
23. Making peri... D ? U
24. Fining emp... D ? U
25. Asking em... D ? U
26. Providing ... D ? U
27. Asking wo... D ? U
28. Making peri... D ? U
29. Holding super... D ? U
30. Requiring supervi... D ? U
31. Arranging monthly co... record ... D ? U
32. Giving workers who turn i... putting their ideas into effect ... D ? U
33. Establishing "worker courts" operated by wo... workers for violation of safety rules ... D ? U
34. Providing for special "exit interviews" with all workers who have been fired ... D ? U
35. Giving supervisors special training on how to handle dismissal cases ... D ? U
36. Putting plates on the base of each important piece of equipment showing its value and cost of operation ... D ? U
37. Requiring department heads to spend at least one week of each year visiting other up-to-date plants ... D ? U
38. Requiring supervisors to take courses in First Aid ... D ? U
39. Having the employees choose one worker from each department to attend regular meetings of the departmental supervisors ... D ? U
40. Giving supervisors longer vacations than those enjoyed by the average worker ... D ? U
41. Setting up a system for making loans to workers at very low interest rates ... D ? U

Supervisor Opinions

The following are opinions held by various supervisors in positions similar to your own. You will probably agree with some of the statements and disagree with others. Please indicate how you feel about each item by marking the statements as follows:

A agree ? uncertain DA disagree

Draw a circle around the answer which best expresses your opinion.

42. What workers think is unimportant so long as they do their jobs well ..... A ? DA
43. The only guarantee of good work is a fat pay envelope ..... A ? DA
44. The nature of supervisors' jobs makes it necessary for them to be unpopular with their workers ..... A ? DA
45. Praising workers for good work only leads to demands for more pay ..... A ? DA
46. Sympathizing with workers' difficulties encourages unfounded protests against working conditions ..... A ? DA
47. What workers do during their "off hours" should be of no concern to their employer ..... A ? DA
48. The way individuals are treated by other workers will probably determine whether they like their jobs or not ..... A ? DA
49. The kinds of jobs which p... position ..... A ? DA
50. If workers are cap... without stimulation from their supervisor ..... A ? DA
51. The only im... ing of the jobs to be supervised ..... A ? DA
52. The use... ..... A ? DA
53. The ... . A ? DA
54. Sup... eir work .... A ? DA
55. Al... ..... A ? DA
56. A... ..... A ? DA
57. ... bilities .... A ? DA
58. I... a decent w... ..... A ? DA
59. S... ..... A ? DA
60. Tl... ..... A ? DA
61. If ... on on your part ..... A ? DA
62. Super... ..... A ? DA
63. Knowing ... the right person for a respe... ..... A ? DA
64. Full responsib... ould be given to the Safety Departme... ..... A ? DA
65. You can tell when peo... you straight in the eye ..... A ? DA
66. About half of the workers in ou... ubborn and uncooperative ..... A ? DA
67. Better results are usually obtained when two or more supervisors are held responsible for a particular job ..... A ? DA
68. Gripes about things other workers do are more likely to be true than gripes about working conditions ..... A ? DA
69. The goals of management and labor are directly opposed and must always be in conflict with each other ..... A ? DA
70. Rapid learners are usually quick forgetters ..... A ? DA

INDIVIDUAL INFORMATION

Today's
Name..... Date.....
(Please Print)

Department..... Job Title.....

Education: (Draw a circle a

Grade Sch College

6 5 6 7

Numb

Hav

Wh

Comm

SCORE

1._____
2._____
3._____
Total_____
% ile_____
Norms Used
_____

9-133406

APPENDIX C

Supervisory Style Survey

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS OKLAHOMA CITY AIR LOGISTICS CENTER (AFLC)
TINKER AIR FORCE BASE, OKLAHOMA 73145

REPLY TO ATTN OF: DP

SUBJECT: Evaluation of First Level Supervisor Course

TO:

1. During the recent past, we have made a considerable organizational investment in supervisory training and will continue to do so in the foreseeable future. The objective, or end result, of this training is to improve the performance of the individual supervisor in the workplace.

2. _____, of your organization, has been selected to attend class _____, First Level Supervisor Course, during the period _____. This person's classroom performance will be evaluated during the time spent in the Management Training Center. However, as noted above, we must also be concerned with the on-the-job performance change as a result of attendance in the First Level Supervisor Course.

3. In order to accurately detect change in supervisory styles and practices, it is necessary to measure the performance of the individual prior to attendance at the First Level Supervisor Course and at a reasonable point in time after return to normal duties in the organization. With this in mind, we are attaching two copies of our Supervisory Style Survey for your use in assessing the on-the-job behavior of this supervisor.

4. Approximately one week prior to the supervisor's departure for the First Level Supervisor Course, please complete Copy 1 of the Survey and forward to 2854 ABG (DPCT). Please suspense Copy 2 and evaluate the supervisor's behavior again six weeks after return from the course and return it at that time.

5. As stated in the Survey, this instrument is not a part of the personnel performance appraisal system and will be used solely for the purpose of evaluating the effectiveness of the supervisory/management training program. Please do not place the name or SSAN of the ratee on the Survey. This office will not keep records of the numbers assigned any specific ratee nor will there be any attempt made to match responses against names of individuals. Please be honest and objective in completing this Survey. Only in this way can we assess the real effectiveness of our First Level Supervisor Course.

Luther B McDaniel

1 Atch
Surveys (2)

LUTHER B. McDANIEL
Civilian Personnel Officer

AFLC - Lifeline of the Aerospace Team

SUPERVISORY STYLE SURVEY

Part 1

Assess the supervisor's behavior, based on your observation, at this point in time. The points on the rating scale may be defined as follows:

0 - Not Observed	- Insufficient opportunity to observe the ratee in a situation which would demonstrate the behavior being considered.
1 - Very Seldom	- Rarely, not often; or infrequently engages in this behavior.
2 - Sometimes	- Occasionally or sporadically will behave in this manner.
3 - Good Deal of the Time	- Normally or usually will behave in this manner.
4 - Most of the Time	- Majority of preponderance of instances will engage in this behavior.
5 - Almost Always	- At all times or practically without exception will engage in this behavior.

This survey is not a part of the performance appraisal process and will not be used for any purposes other than evaluating the effectiveness of the First Level Supervisor Course.

Circle the number which most describes the supervisor's behavior.

Factor	Rating Scale: Not Observed	Very Seldom	Sometimes	Good Deal of the Time	Most of the Time	Almost Always
1. Is fair in assigning undesirable extra duties among employees.	0	1	2	3	4	5
2. Asks employees for their ideas before setting up an important project.	0	1	2	3	4	5
3. Uses a leadership style which causes employees to respond favorably.	0	1	2	3	4	5
4. Employees go to this supervisor for help in solving job related problems.	0	1	2	3	4	5
5. Makes sound, well-considered decisions and recommendations.	0	1	2	3	4	5
6. Panics when several important projects are due in a short period.	0	1	2	3	4	5
7. When asked, satisfactorily explains major personnel programs to employees.	0	1	2	3	4	5
8. Keeps accurate and current personnel records.	0	1	2	3	4	5
9. Appropriately uses the award system.	0	1	2	3	4	5

Factor	Not Observed	Very Seldom	Sometimes	Good Deal of the Time	Most of the Time	Almost Always
10. Uses constructive disciplinary procedures.	0	1	2	3	4	5
11. Is aware of change of voice, body movement, nervousness, or impatience as indicators of what a person is trying to say.	0	1	2	3	4	5
12. Gives clear and detailed instructions to employees.	0	1	2	3	4	5
13. Expresses him/herself satisfactorily orally.	0	1	2	3	4	5
14. Treats each person as an individual according to his/her needs and goals.	0	1	2	3	4	5
15. Controls his/her own emotions when subordinates question his/her decisions.	0	1	2	3	4	5
16. Provides an environment which allows people to become motivated.	0	1	2	3	4	5
17. Recognizes legitimate excuses as contrasted to defense mechanisms (e.g. blaming others for one's own failure, finding fault with the "system").	0	1	2	3	4	5
18. Other supervisors seek this person's advice on solving problems.	0	1	2	3	4	5

Factor	Not Observed	Very Seldom	Sometimes	Good Deal of the Time	Most of the Time	Almost Always
19. Plans ahead for workload and other changes which might affect his/her unit.	0	1	2	3	4	5
20. Explains all new rules and policy changes to employees.	0	1	2	3	4	5
21. Encourages employees to be safety conscious and report hazards.	0	1	2	3	4	5
22. Knows where to go if help is required from other work units.	0	1	2	3	4	5
23. Practices EEO and affirmative action in daily activities.	0	1	2	3	4	5
24. When required, correctly uses the grievance procedure as specified in the labor-management contract.	0	1	2	3	4	5
25. Does a good job of handling conflict.	0	1	2	3	4	5

APPENDIX D

First-Level Supervisors Course

First-Level Supervisors Course - Overview

The First-Level Supervisors Course is a 12-day, 78-hour course aimed primarily at training the Tinker Air Force Base supervisor.

Course content and instructional approach falls into the following seven areas: Supervisory Skills (Tab A), Personnel Management (Tab B), Policy and Procedures (Tab C), Federal Acts and Unions (Tab D), Communications (Tab E), Individual Behavior and Interpersonal Relationships (Tab F), and Group Behavior (Tab G). The references used for each topic in these major areas are shown as Tab H.

Classes are limited to 20 participants, all Civil Service Employees of Tinker Air Force Base. Students are drawn from both General Schedule (salary) and Federal Wage System (hourly wage) classifications.

The methodology employed in the conduct of the course is highly varied. Classroom sessions are primarily of the conference-discussion type wherein maximum advantage is taken of the vast experience of the participants. To date that experience has averaged well over 300 years of federal service per class. Extensive use also is made of practical exercises. Both individual effort and work shop approaches are used. In every case, group solutions are presented by a group spokesperson and the presentation is critiqued both as to form and content. Appropriate use is made also of simulations throughout the length of the course.

To facilitate the learning process, participants are issued at the outset a course notebook with topic outlines for notetaking. These notebooks also contain supplemental course material. Additionally, handouts are issued to students where appropriate. The participants are also issued a Personnel Management Handbook which contains additional material primarily in the area of personnel management and policy and procedure. All issued material is retained by the student at the completion of the course.

Maximum use is made of training aids. Facilities utilized include videotape replay, slide projectors, tape recorders, movies, charts, and overhead projectors.

Participant Evaluation is an important part of this course. Participants are given four examinations in the course. Two of these examinations are given on the first day, a pre-course content examination and the test "How to Supervise".

The same two examinations are given on the final day. The course content examination lasts 1.75 hours. Additionally, instructors observe participants throughout the course. As part of the evaluation process, each participant meets privately with an instructor for a personal counseling session at the end of the course. The participants' test scores and the instructors observations are discussed. The scores and instructor observations are later forwarded to the Air Force. The areas of observation and the rating system used are shown at Tab I.

TAB A

Supervisory Skills (13.5 Hours)

The major topics covered in this area are (total hours are shown in parenthesis): Transition to Supervision (1), Leadership (2), Supervisory Skills (2.5), Creative Problem Solving (4), and The Management Process (4).

Initially, the participants are led into a discussion of the supervisory responsibilities and functions to include the management of materials, money, machines, methods and people. This is followed by an examination of the formal versus acceptance theories of authority. Also examined are the formal and informal limitations on authority. The units on Leadership and Supervisory Skills further develop the area through an examination and discussion of traditional and contemporary leadership styles. Heavy reliance is placed on the Tannenbaum-Schmidt Leadership Continuum model.

In Creative Problem Solving, participants are introduced to a systematic six-step approach to problem-solving. Through a series of simulated situations, solved in individual and group workshop efforts, problem-solving techniques and probable results are studied, with group solutions presented to the class.

The unit on The Management Process is devoted to examination and discussion of the management functions of planning, organizing, staffing, coordinating, directing (leading), and controlling. Through a three-part exercise involving individual and group effort, participants identify their normal daily supervisory activities in terms of the management functions and isolate specific areas where improvement is desired. Group solutions are presented to the class.

Personnel Management (12.5 Hours)

The major topics covered in this area are (total hours are shown in parenthesis): Occupational Health and Safety (1), Personnel Management and Administration of Records (1), Personnel and Position Action Procedures (2), Position Classification (2), Performance Standards (1.5), and Performances Evaluation (5). Due to the nature of these subjects, heavy reliance is placed on pertinent Air Force Regulations.

Initially covered is Occupational Health and Safety wherein emphasis is placed on the supervisor's related responsibilities and duties. Stress is also made throughout on accident prevention through identification and correction of hazardous conditions and practices. Through a video tape and an open classroom discussion, safety and health aspects in both administrative and industrial areas are covered. Also discussed are bomb threats, emergency procedures, and coronary and death action.

The topic of Personnel Management Administration and Records primarily covers the supervisor's record-keeping responsibilities--especially in regard to AF Form 971, Supervisors Record of Employee, Of particular importance is the discussion of the supervisor's responsibilities under the Privacy Act.

Personnel and Position Action Procedures is concerned with defining the categories of personnel and position actions used within the Air Force. Through an individual work exercise participants take the prescribed administrative actions to handle a resignation, to fill a position, to request a promotion, and to request assignment of an employee on detail. Also covered is the handling of positions which are designated as sensitive.

Position classification covers the rather intricate relationship between position management, i.e., the assignment of work among positions to accomplish the necessary tasks efficiently and economically, classification as to structuring the position according to the level of difficulty, and grade level, which determines the salary of the position incumbent. Emphasis is placed throughout on the role and responsibilities of the supervisor. Also covered is the Fair Labor Standards Act and its impact on Air Force management and on exempt and non-exempt employees.

Inasmuch as the Civil Services Commission has embarked on a new system for position classification (the Air Force has a target of full implementation within five years), the "Factor Evaluation System" is discussed at length. Participants work an individual effort exercise classifying a position using this new system. The topic is closed with a discussion of the two Civil Service Pay Systems (General Schedule and Federal Wage System) and employee appeal rights in regard to position classification.

Performance Standards and Performance Evaluation deal with the establishment of specific, measurable aspects of performance standards and the evaluation of employee actual work performance in the light of those standards. Utilizing a series of practical exercises, participants prepare performance standards from a given position description. Later a scenario is provided wherein participants are required to compare and evaluate an employee's actual performance in regard to the established performance standards and determine an annual performance rating (Unsatisfactory, Satisfactory or Outstanding). Appropriate Air Force forms, to include annual appraisals, are used. Techniques of counseling employees on work performance are emphasized. Through the use of videotape replay, role playing counseling sessions by four participants are replayed and critiqued for effectiveness.

TAB C

Policy and Procedure (12.0 Hours)

The major topics covered in this area are (total hours are shown in parenthesis): Disciplinary Action and Counseling (5.5), Merit Promotion Program (1.5), Leave Administration (1), Awards (1), Reduction in Force (1), and Training (1).

In Disciplinary Action and Counseling, participants are led through a discussion and a workshop exercise which examines the extremely sensitive area of disciplining employees. The Air Force policy of constructive and corrective discipline, as opposed to punitive discipline, is emphasized, as are the supervisor's related role and responsibilities. Also covered are various types of causes for action and appropriate disciplinary actions. Employee rights in regard to disciplinary action are also covered. Reviewing special emphases are the techniques of conducting a disciplinary counseling with employees wherein classroom discussion and a work group exercise is used. Two of these counseling sessions, utilizing four participants, are videotaped and replayed to the entire class. These are later critiqued.

The Merit Promotion Program unit examines in detail the process of competition and selection for promotion. Discussions cover the basic Air Force policy for promotion, the various factors which govern employee competition and the ultimate selection process. Also covered are non-competitive promotions, the supervisor's interview with selected candidates, the various systems by which the most qualified candidates are identified to include career boards.

The Awards unit is devoted to a discussion of various awards for which employees are eligible. The specific criteria for each and the administrative procedures for preparing and submitting recommendations for awards are covered in detail. In a group workshop, participants prepare a recommendation for an award using the performance standards prepared in a previous class session.

In Reduction in Force (RIF), an examination is made of the conditions under which a RIF may be imposed. Also defined and discussed are the methods by which employers are assessed and ranked on retention registers, to include competitive areas, competitive levels and competing employees (i.e., tenure grouping and subgrouping and length of service). The session ends with a discussion of employee appeal rights and the placement assistance programs available to employees who are reached for release.

Under the unit on Training, participants are led through a discussion on the determination of training requirements, the administrative process in requesting training and how training programs are identified, documented and reported. Also covered are methods of evaluating the effectiveness of training and the identification of constraints in planning and implementing training.

TAB D

Federal Acts and Unions (1)

Unions and Labor Management Relations (1)

This is a one unit area. In this subject, the provisions of Executive Order 11491, as amended, and The Labor-Management Agreement between OCALC-TAFB and Local 916, American Federal of Government Employees, are discussed. Special emphasis is placed on the specified grievance procedure, particularly employee rights under these two documents and the supervisors' role and responsibilities in handling employee grievances.

TAB E

Communication (8.5 Hours)

The major topics covered in this area are (total hours are shown in parenthesis): Listening (1), Non-verbal Communication (1), and Interpersonal Communication (6.5). The topics are presented in three consecutive class sessions in the sequence shown.

In Listening, effective listening is introduced as an effective management tool. The importance of careful listening in the communication process is stressed. Additionally, the discussion dwells at length on the necessity to realize there are barriers to effective listening, to recognize them, and to train oneself to overcome them.

Non-verbal Communication emphasizes the different forms this type communication may take and its importance in the communication process. Also brought out in the discussion is the influence played by cultural or ethnic background in non-verbal communication.

Interpersonal Communication covers in detail the four essential elements of communication, and again identifies some common communication barriers and identifies ways to overcome them. The discussion also covers the importance of organizing a communication and the necessity for a system of feedback. In an extensive individual/group simulation, participants go through an exercise involving identifying and ranking words by degree of abstraction, gearing a message for a particular receiver, classifying statements as to whether they represent fact or inference and typical responses to emotional remarks.

The session ends with a Personnel Relations Survey which is based on the Johari Window concept (Joseph Luft and Harry Ingham). The survey is an individual, self-scoring exercise designed to yield information on how the individual monitors and controls the flow of information to and from others.

Individual Behavior/Interpersonal Relationships (5.5 hours)

The major topics covered in this area are (total hours are shown in parenthesis): Individual Behavior (1) and Interpersonal Relationships (4.5). The two sessions are held consecutively.

In Individual Behavior, stress is placed on the necessity to understand that individual behavior influences interpersonal relationships which in turn affects leadership effectiveness. Emphasis is given to the point that self-awareness and understanding one's own behavior is of paramount importance in understanding the behavior of others. Also covered in the discussion is individual perception, how perceptions will differ among individuals and how the employees' perception of the supervisor as an individual has a direct bearing upon his effectiveness as a leader.

The unit on Interpersonal Relationships addresses in detail the theories of Maslow (Hierarchy of Needs), Argyris (Personality Development), McGregor (Theory X and Theory Y), Herzberg (Motivators-Hygiene Factors), Blake and Mouton (The Managerial Grid) and Tannenbaum and Schmidt (Continum of Leadership Behavior). Additionally, the unit specifically covers personal values, i.e., definition and development to include the influences of heredity, environment, social background, ethnic origins and culture.

Through the use of magnetic aids, a model is constructed as each theory is discussed wherein a vertical correlation of the various theories is established. In the presentation, repeated association is made relating the various theories to real-world working conditions.

The relationship between individual needs, whether satisfied or unsatisfied, the work, the work environment, the leadership style of the supervisor and the employees is covered at length.

Group Behavior (3)

This is a one unit area. In this subject the participants are led into a discussion of groups and group behavior. Group traits and characteristics are covered in detail as is group process and group content. Emphasis is placed on group task roles, group maintenance roles and self-oriented roles. They are defined and discussed at length. In a simulation, a group of six participants is formed to discuss a given problem. As this discussion progresses, the other participants identify and record the various roles being individually assumed within the group. This is later critiqued in classroom discussion. The session closes with a discussion of group decision-making processes and those factors which hinder the process and those which facilitate it.

Supervisory Skills

Transition to Supervision

Koontz and O'Donnel, Principles of Management: An Analysis of Managerial Functions.

Hersey and Blanchard, Management of Organizational Behavior, 3rd Edition.

Leadership

Goble, Frank, Excellence in Leadership, American Management Association, 1972.

Supervisory Skills

Van Dersal, William R., The Successful Supervisor in Government and Business.

Flippo, Allyn and Bacon, Management: A Behavioral Approach, 2nd Edition.

Creative Problem-Solving

Maier, N. R., Problem-Solving in Individuals and Groups.

The Management Process

Koontz and O'Donnel, Principles of Management: An Analysis of Managerial Functions.

Personnel Management

Position Classification

Air Force Regulation (AFR) 40-102, Basic Authority and Responsibility for Civilian Personnel Administration and Management

AFR 40-511 and DEAMA-TAFB Supplement No. 1, Position Classification

AFR 40-512, Classification Appeals

AFR 40-1, Guide for Writing Position Description

Appendix J. Federal Personnel Manual Supplement 532-1, Hazardous Duty Pay (Wage Grade)

Appendecies A and E, FPM Supplement 990-2, Hazardous Duty Pay (General Schedule)

AF Form 1378, Position Description Comparison of Job Evaluation System (Non-Supervisory Positions)

AFLC Training Course Outline, The Supervisor and the Factor Evaluation System of Position Classification

Factor Evaluation System, The Supervisor's Guide to the Factor Evaluation System

Performance Evaluation

AFR 40-451, Performance Evaluation

OCAMA-TAFB Supplement No. 1 to AFR 40-451

AFR 40-452 - Performance Effectiveness Program

OC-ALC-TAFB Phamphlet 40-8, The Merit Promotion Program

Performance Standards

AFR 40-451, Performance Evaluation

AFLC Supplement No. 1 to AFR 40-451

OCAMA-TAFB Supplement No. 1 to AFR 40-451

Occupational Safety and Health

AFR 127-01, Safety, with Supplement No. 1

USAF Form 457

1976 Labor Management Agreement, OCALC-TAFB, and Local 916, AFGE

AFR 40-717, Death of Civilian Employees

Personnel Management, Administration and Records

H. Paul Ecker, Handbooks for Supervisors

AFR 40-293, Supervisor's Records

AF Form 971, Supervisor's Record of Employee

AFR 12-35, Air Force Privacy Act Program

Personnel and Position Action Procedures

AFR 40-296, Personnel and Position Actions

OCAMA-TAFB 40-1, Merit Promotion Program

AFR 42-202, Requirements for Designating Civilian Position Structure

Policy and Procedures

Disciplinary Action and Counseling

AFR 40-750, Disciplinary Actions

Merit Promotion Program

AFR 40-335, The Merit Promotion Program

OCAMA-TAFB 40-1, OCAMA Merit Promotion Program, with Change 1

OCALC-TAFB Pahmphlet 40-8, The Merit Promotion Program

Leave Administration

AFR 40-630, Leave Administration

Awards

AFR 40-451, Performance Evaluation

AFR 40-470, Civilian Performance Awards Program

Reduction in Force

AFR 40-351, Reduction In Force, Transfer of Function and Out-Placement Assistance, with Supplement No. 1

AFR 40-300, Filling Positions, with Supplement No. 1

Training

AFR 40-410, Training

AF Form 1320, Training Chart

AF Form 1152, Civilian Development Record

Federal Acts and Unions (1)

Unions and Labor-Management Relations

Presidential Executive Order 11491, as amended, Labor-Management Relations in the Federal Service.

Labor-Management Agreement, OCALC-TAFB and Local 916. American Federation of Government Employees.

Communication

Listening

Ralph G. Nichols and Leon A. Stevens, Listening to People (audio tape presentation)

Non-Verbal Communication

Julius Fast, Body Language

Interpersonal Communication

Air Force Pamphlet 13-2, Guide for Air Force Writing

Air University Publication, The Tongue and Quill

Joseph Luft, Of Human Interaction

Jay Hall and Martha S. Williams, Personal Relations Survey

Individual Behavior - Interpersonal Relationships

Individual Behavior

Robert Wrenn and Reed Menke, Being

Interpersonal Relationships

David R. Hampton, Charles E. Sumner, Ross A. Webber, Organizational Behavior and the Practice of Management

A. H. Maslow, Motivation and Personality

Chris Argyris, Personality and Organization

Douglas McGregor, The Human Side of Enterprise

Frederick Herzberg, Work and the Nature of Man

Robert L. Blake and Jane S. Mouton, The Managerial Grid

Robert Tannenbaum and Warren H. Schmidt, How To Choose a Leadership Pattern

Group Behavior

Group Behavior

Derwin Carter and Alvin Gander, Group Dynamics

Joseph Luft, Group Processes: An Introduction to Group Dynamics

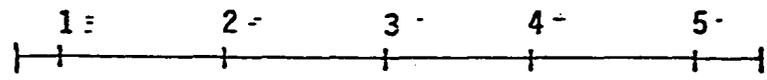
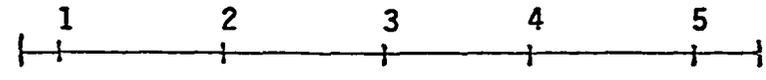
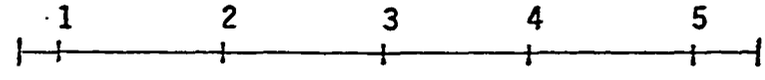
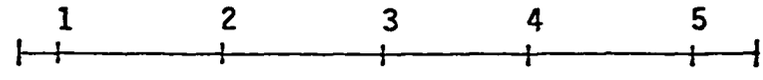
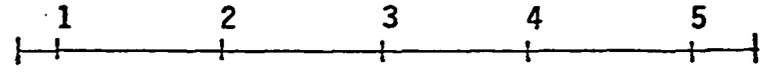
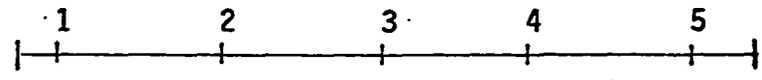
H. Randolph Bobbett, Jr., Robert H. Breinholt, Robert H. Doktor, James P. McNaul, Organizational Behavior: Understanding and Prediction

PARTICIPANT_____ CLASS_____

STUDENT ASSESSMENT FORM

This assessment is based on a limited observation of the individual in a training situation only.

PART I

Major Performance Areas	
1. Demonstrates constructive attitude toward Air Force policies and programs.	
2. Makes sound, well-considered decisions or recommendations, based on key issues of situation.	
3. Flexible in meeting new situations or problems.	
4. Demonstrates sound managerial attitude toward subordinates.	
5. Works effectively with others.	
6. Communicates effectively.	

(See Page 3 for explanation of graph.)

PART II

Remarks

Remarks in this section amplify upon the information contained in PARTS I and III (TEST SCORES) pertaining to observed strengths and weaknesses and are intended to identify potential developmental or training needs.

PARTICIPANT_____ 121 CLASS_____

STUDENT ASSESSMENT FORM

PART III

Subject Area	Number Questions	Number Missed	Developmental Need Indicated	Satisfactory
1. Supervisory Skills	15			
2. Personnel Management	23			
3. Policy and Procedure	19			
4. Federal Acts and Unions	9			
5. Communication	13			
6. Individual Behavior/ Interpersonal Relations	13			
7. Group Behavior	8			
TOTAL	100			

* Raw Score_____

** Percentage Grade_____

* Number Correct Answers

** Percentage of Correct Answers

(Note: This evaluation is a result of the 100 question Pre-Content and Post-Content Examination.)

PAGE 3 (Explanation of Observation Scale Factors)

This assessment is based upon the assumption that individuals may, by their own effort, improve their own individual performance in any identified area.

Observation Scale Number	Scale Number Meaning	Effort, Application, Practice or Training Necessary to Improve
1.	Individual is noticeably deficient in this area.	Individual demonstrates a lack of knowledge, application or practice in this area. Strong individual effort is necessary to improve; additional training may be necessary.
2.	Individual is marginally acceptable in this area.	Individual demonstrates some basic knowledge, application or practice in this area. Some individual effort is necessary to reach fully acceptable level.
3.	Individual is acceptable at this level.	Individual demonstrates sound knowledge, application or practice in this area. Little or no effort necessary to maintain this level.
4.	Individual is highly acceptable at this level.	Individual demonstrates a thorough knowledge, application or practice in this area. Demonstrates an understanding of the application and indicates an effort to individually utilize this area.
5.	Individual is superior at this level.	Individual demonstrates a superior knowledge, application or practice in this area. Individual makes a noticeable effort to properly apply themselves in this area. A consistently strong area for the individual.

APPENDIX E

Participants' Pretest, Posttest, and Change Scores Taken from the How Supervise? Test, Supervisory Style Survey, and Course Content Survey

TABLE 3

PRETEST, POSTTEST, AND CHANGE SCORES TAKEN FROM THE HOW SUPERVISE? TESTS OF ALL PARTICIPANTS

Subject Number	Pretest Scores	Posttest Scores	Change Scores
1	61	68	7
2	46	56	10
3	54	63	9
4	49	60	11
5	45	68	23
6	58	65	7
7	64	57	-7
8	53	63	0
9	59	66	7
10	53	64	11
11	52	56	4
12	53	61	8
13	54	65	9
14	47	57	10
15	51	58	7
16	61	69	8
17	49	55	6
18	56	58	2
19	58	64	6
20	56	47	-9
21	55	61	6
22	60	63	3
23	52	61	9
24	58	64	6
25	65	57	-8

TABLE 4

PRETEST, POSTTEST, AND CHANGE SCORES TAKEN FROM THE PARTICIPANTS' SUPERVISORY STYLE SURVEYS

Subject Number	Pretest Scores	Posttest Scores	Change Scores
1	3.0	4.2	1.2
2	3.2	4.0	.8
3	3.9	4.3	.4
4	5.8	4.2	-1.6
5	4.2	4.4	.2
6	3.9	4.5	.6
7	3.6	4.2	.6
8	3.0	4.5	1.5
9	4.4	4.5	.1
10	4.8	4.8	0
11	4.4	3.6	- .8
12	4.2	5.0	.8
13	4.3	4.2	- .1
14	3.2	4.0	.8
15	4.3	4.5	.2
16	4.6	5.0	.4
17	4.2	4.3	.1
18	3.8	4.2	.4
19	3.0	3.0	0
20	2.8	3.2	.4
21	4.1	3.7	.4
22	2.4	3.9	1.5
23	4.2	4.2	0
24	2.3	2.7	.4
25	4.2	4.4	.2

TABLE 5

PRETEST, POSTTEST, AND DIFFERENCE SCORES FOR THE PARTICIPANTS' SUPERVISORY KNOWLEDGE

Subject Number	Pretest Scores	Posttest Scores	Change Scores
1	87	89	2
2	74	66	-8
3	86	92	6
4	72	83	11
5	82	94	12
6	76	84	8
7	82	90	8
8	83	90	7
9	82	90	8
10	84	86	2
11	81	86	5
12	70	88	8
13	78	92	14
14	78	83	5
15	79	87	8
16	82	95	13
17	83	95	12
18	88	94	6
19	81	90	9
20	79	93	14
21	74	77	3
22	83	89	6
23	66	78	12
24	81	92	11
25	75	91	16

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