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PRE-TRAINING NEEDS ASSESSMENT
FOR MANAGEMENT DEVELOPMENT

A Project Submitted to

The Faculty of the School of Education

In Fulfillment of the Requirements of the Degree of

Master of Arts

in

Education: Vocational Option

By

Dorothy Elliott Wallace, M.A.

San Bernardino, California

1982

APPROVED BY:



Advisor



Committee Member

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ACKNOWLEDGMENTS

I would like to acknowledge the teaching faculty of the Department of Management and Supervision of Chaffey Community College, Alta Loma, CA for their contribution toward the item content of the Management Field Survey, and Steven Ray Wallace for his assistance with the test design.

This effort is dedicated to my parents, Bob and Loreene Elliott, for instilling in me a belief in myself and my potential; and my husband, Ed Wallace, for his limitless support and encouragement.

INTRODUCTION

The intent of this project was to develop an assessment instrument, in the area of organization management and supervision, which would aid in the identification of developmental needs on both an organizational and individual level. The ultimate purpose of this project was to collect meaningful data which will encourage participating organizations and individuals to continue their educational development.

As comparative data was feedback to participants, they were able to recognize possible developmental need and identify target areas for further training and development. Once the need was established and target areas identified individuals were then able to pursue meaningful management training. Organizations, on the other hand, used accumulated data to establish and plan in-service training programs and reinforce the external educational pursuits of their managers.

It is important to note that the assessment instrument, known as The Management Field Survey, was not intended for the selection or evaluation of personnel. Assessment results were not intended to be used for hiring, appraising, upgrading, or terminating employees. The individual's right to the privacy of his or her test scores was always protected. Organizations only received the mean scores of their employee group in order to insure that privacy. These practices in

conjunction with the careful usage of topics, words, and phrases inherent in the survey assure that the survey is legal and non-discriminatory relative to current fair employment laws.

STATEMENT OF THE PROBLEM

Discussions with representatives from business and industry, management advisory committee members, and management students revealed the problem of motivating supervisory and pre-supervisory personnel to develop skills, knowledge, and attitudes deemed necessary to be an effective supervisor. The reason for this difficulty seems to be two fold. First, being that many supervisors advance through the ranks without formal training, they often are not aware of the extent of the knowledge associated with management development. It is often assumed that because one has expertise in a technical area that he or she has the requisite skills and knowledge necessary to be an effective manager. Primary consideration may not be given to the fact that management is a distinct developmental area with a defined body of knowledge.

Second, supervisory activities are often developed through modeling. Unless an obvious problem was to occur the supervisor may have no way of identifying developmental strengths and needs other than through tradition.

As a result of the interviews, it was observed that supervisory and management training is often viewed as some form of academic exercise or appropriate only for top management.

The problem was identified as follows:

To identify and implement an approach which will accomplish three basic goals:

1. To communicate to supervisory and pre-supervisory personnel that a body of knowledge does exist which may require specific training and education in management to learn
2. To aid supervisory and pre-supervisory personnel in the identification of their strengths and developmental needs so they may be motivated toward management development training
3. To provide credible feedback on an organizational level so that the organization may target its management development processes and reinforce supervisory training and development

In order to meet these goals it was decided that the best means would be to develop a needs assessment instrument that would provide meaningful feedback on an organizational and individual level.

The items in this instrument or test would provide a survey of the body of knowledge relevant to management development. Establishing the "need to know" seemed to be the next step in solving the problem. As Beach states, "If trainees are not receptive to instruction, if they can see no reason to learn, then a training effort can hardly get off the ground. Adequate motivation is essential to the success of any learning

situation." He goes on to say, "They will exert themselves to fulfill a felt need."¹

The literature seems to adequately substantiate the need to establish a readiness to learn or "need to know" prior to an effective learning or training process. "There must be a 'readiness to learn' on the part of adults before effective learning takes place."²

Another element in the motivational process seems to be a sense of control over the decision making as relates to the individual's training or development. "The adult resents being treated like a child. He wants to be a 'self-responsible, self-respecting, self-directing' organism. In the training process the adult likes to help determine his own needs."³

Another factor which must be addressed is that of utilizing the resources of both the organization and the individual effectively and efficiently. Humble states, "The stage of establishing needs for the company and for the individual manager is of critical importance and if it is done badly, scarce resources may be misdirected."⁴ Conducting

¹Dale S. Beach, Personnel: The Management of People at Work (New York: Macmillan Publishing Co., Inc., 1980), p. 362.

²Malcolm Knowles, "Andragogy, Not Pedagogy," Adult Leadership, April, 1968, in Donald L. Kirkpatrick, A Practical Guide for Supervisory Training and Development (Reading, MA: Addison-Wesley Publishing Co., Inc., 1971), p. 37.

³Ibid.

⁴John Humble, Improving the Performance of the Experienced Manager (New York: McGraw-Hill Book Company, 1973), p. 1.

training via a "shot gun" method could waste valuable time and money. Training managers in areas of developmental strength is not only a waste of resources, but may cause developmental needs to be neglected.

The need to identify developmental strengths and needs, together with the motivational factors involved in training point toward a pre-training needs assessment instrument. Such an instrument should have a positive influence on training motivation, utilization of resources and training content. This approach is substantiated by Hamblin who states, "The pre-training test should if possible be administered some time before the start of the training, so that there is time to exclude from the training those people who do not need it, and also to adjust the training itself to fit in with the trainees' actual state of knowledge."⁵

Null Hypothesis

The Management Field Survey will have no demonstrative effect as a motivational factor in management training and development on either an organizational or individual level.

⁵A. C. Hamblin, Evaluation and Control of Training (New York: McGraw-Hill Book Company, 1974), p. 91.

SEARCH FOR RELATED INSTRUMENTS

An extensive review of the literature, while revealing much in the area of training needs assessment, revealed no other approach similar to the Management Field Survey.

The types of pre-training needs assessment which tend to be used are as follows:

An analysis of organizational problems is sometimes used for a training needs assessment. For example, excessive turnover rate, excess amount of scrap, and an increase in the accident rate may indicate a need for training.⁶ A performance review may also reveal problems which necessitate training.

Some form of survey, either written or oral, is often used to determine training needs. The survey is a form of subjective feedback based on the observation and experience of the trainee and/or the supervisor of the trainee. It may take the form of an attitude survey, an exit interview or a questionnaire.⁷

Behavioral and attitude assessments are also on the market.⁸ These instruments are usually developed by behavioral

⁶Donald L. Kirkpatrick, A Practical Guide for Supervisory Training and Development (Reading, MA: Addison-Wesley Publishing Company, 1971), pp. 24-34.

⁷Ibid.

⁸John P. Robenson, Robert Athanasiou, and Kindra B. Head, Measures of Occupational Attitudes and Occupational Characteristics (Ann Arbor, MI: Survey Research Center Institute for Social Research, University of Michigan, 1976).

scientists and industrial psychologists. An example of such an instrument is Mouton and Blake's "Managerial Grid."

The Management Field Survey is an objective, content-oriented instrument. It provides comparative scores based on percentile rank and is prescriptive in form. A review of the literature and interviews with training directors and professional management development firms revealed no such instrument on the market.

DESCRIPTION OF THE MANAGEMENT FIELD SURVEY

The Management Field Survey is a one hundred thirty-nine item assessment instrument which evaluates an individual's knowledge of facts and methods that characterize the successful manager or supervisor. The instrument is divided into the following sub-tests which encompass primary managerial responsibilities:

Sub-test A - Management and Supervision of Personnel

This category deals with selection, training, evaluating and promoting personnel, as well as equal employment opportunity.

Sub-test B - Management and Supervision Principles

This category deals with organizational structure, functions of management, team building and leadership.

Sub-test C - Human Relations

This category deals with communication, motivation, conflict, and change.

Sub-test D - Management and Supervisory Responsibility for Labor Relations

This category deals with grievances, contract administration and unions.

Sub-test E - Management and Supervisory Responsibility for Quality Control

This deals with probability, product sampling,

indexing samples, and evaluating quality.

Sub-test F - Financial Tools of Management and Supervision

This category deals with budgeting, profit, loss and economics.

Sub-test G - Management and Supervisory Responsibility for Safety

This category deals with safety principles, correcting hazards, disability claims, and accident reporting.

All test items are straight-forward, multiple-choice questions with only one correct answer. Fine gradations of correctness among answer choices have been carefully avoided. The reading difficulty level of the instrument items has been considered to insure clear and easy reading with the exception of a small number of technical questions.

DEVELOPMENT OF THE MANAGEMENT FIELD SURVEY

Instructors of the Management and Supervision Department at Chaffey Community College were asked to submit ten multiple choice questions relative to their specialty. These individuals were selected, not only because they had the appropriate educational background, but because they were all practitioners of management in industrial, business and service organizations. It was requested that each question meet the following criteria:

1. Each question was to relate to something a supervisor should know in order to be able to perform his or her job effectively
2. The questions should not refer to names of theories or theorists
3. The questions should not refer to the content of a particular class, course, lecture, or test

Over two hundred items were submitted. After careful evaluation, one hundred forty-eight were selected for use in the Management Field Survey. Wording was then evaluated and corrected for readability. In some cases, distractors were added or edited for consistency of form. The answers were randomly distributed among the distractors as the pilot instrument was developed and prepared.

A pilot test population of fifty people was selected from among local business and industry and the survey was administered. From the results of the pilot survey an item analysis was completed. It was determined that nine items were not satisfactory and they were removed from the instrument. The final one hundred thirty-nine item Management Field Survey was completed and prepared for general administration.

ADMINISTRATION OF THE MANAGEMENT FIELD SURVEY

Population

Participating organizations were selected on a voluntary basis. Personnel and training managers in the Pomona Valley and Inland Empire areas of Southern California were contacted and informed as to the nature of the assessment. Of those contacted fifteen chose to implement the Management Field Survey within their organizations. (See Appendix A) The management staff of each organization identified the employees they wished to participate in the assessment.

Participants ranged from pre-supervisory to supervisory to mid-level management. Each organization also selected the time of day, as the Management Survey was administered on company time. The location of the assessment administration was, without exception, on site at the sponsoring organization. All instruments were administered to groups of participants. Some organizations chose to divide their participants into sub-groups which would enable them to do a comparative analysis of designated populations within their organization.

Orientation

A period of orientation preceded the actual assessment administration. The history of the development of the instrument

and assurance of individual and organizational confidentiality were emphasized. Each participant was then issued two scan-tron sheets, a test booklet, and a pencil. The instructions on the front of the test booklet were read aloud and questions entertained. Participants were told that they were to mark a single answer for each item and that they would have as much time as necessary to complete the assessment. Each participant was then asked to complete the data section at the top of each scan-tron form. Definitions for each category were given verbally. Data collected on each individual and organization included:

Name (individual)

Number assigned to the organization (example: 02, 03, 04, etc.)

Product organization or service organization (participant checked product or service)

Product organization definition: An organization whose primary purpose is to produce a product.

Service organization definition: An organization whose primary purpose is to provide a service.

Supervisor or Non-Supervisor (participant supervisor or non-supervisor)

Supervisor definition: An individual who works through others to accomplish a given task. This individual will probably have the responsibility to evaluate, select and recommend termination of the personnel he or she supervises. A supervisor

may be considered first or second level management.

Non-supervisor definition: An individual who works directly with the task at hand and is responsible only for his or her own production.

Three or more management courses or less than three courses (participants checked three or more or less than three management courses)

Management course definition: A series or group of classes with a primary focus on supervision or management skills, theories and information.

Scoring

The scan-tron forms were scored and the number correct was tabulated for each sub-test category. That information, together with the individual data on the scan-tron, was fed into the computer for tabulation of mean scores, percentiles and variables. Scores for each sub-test category were then translated into percentile rank.

Reporting Scores

Organizations who opted to allow ten or more of their employees to take the survey received a group composite score; that is, the mean percentile scores for their employee group or groups (Appendix B). In addition, they were presented with the mean percentile scores of the total assessed population including the categories of supervisors, non-supervisors, service organizations, product organizations, those who had completed

more than three management courses, and those who had completed less than three management courses. This information was presented in a final interview with the management of the sponsoring organization in order that they might do a comparative analysis of their employee group to the total assessed population in each category and each major variable. Due to possible complications in the areas of personnel management and labor relations, composite scores were not given to the individual participants. The decision to reveal composite scores was left in the hands of the company management.

Each individual who completed the survey received a personal copy of their results. Each assessment results packet included a cover letter, a graph displaying their percentile rank in each of the sub-test categories, and a Topical Course Index. (See Appendixes C, D, E and F) The topical course index enabled the participant to cross reference a category of developmental need with specific topics covered by that category and courses offered in the community which deal with those topics.

Individual and organizational scores were reported in terms of percentiles for each of the sub-tests and for the total test. Percentile scores range from one to ninety-nine with an average score of fifty. A score of thirty, for example, means that approximately thirty percent of the people that have taken the survey achieved the same or a lower score while approximately seventy percent scored higher.

Individuals were encouraged to ask questions in the group meeting when their results packets were returned. They were encouraged to view their results in a positive, prescriptive manner. Assurances were again given that individual survey results were held in the strictest confidence and that company management only had access to group mean scores. Individual participants were then invited to make one-to-one appointments with the survey administrator if they had any questions or wished clarification on their individual results.

RESULTS AND CONCLUSIONS

As a result of the previously described problem, it was decided that an objective, content oriented, norm referenced test would act as a motivational factor in management development on both an individual and organizational level. Such an instrument was developed and used by fifteen organizations in the Pomona Valley and Inland Empire area of Southern California. (See Appendix A) Five hundred ninety-nine individuals were assessed by the instrument which is titled the Management Field Survey.

The null hypothesis does not appear to be supported for the following reasons. Two groups from two different participating organizations totaling forty-two individuals were tracked in relationship to their attendance at the local community college after being assessed and receiving percentile ranked results. Twenty-seven of the forty-two (64%) did enroll in the management program the following quarter. These were all first time participants in that program. In other words, those who had or were currently taking courses in management at that community college were not included as a part of the 64% figure. In addition a number of inquiries about management development opportunities in the geographical area were made by individuals who participated. The fact that management and pre-management employees were initiating inquiries

and pursuing management training on their own time was an important positive result of the Management Field Survey. This trend continued consistently throughout the entire study. Participating organizations reported that individuals who had previously shown little or no interest in management development were now making inquiries and taking action in that area. Some of the apparent motivational change might be attributed to the "Hawthorne effect" (that of showing positive attention to the study participants) if it were not for the fact that most of the organizations involved already had on-going, in-house training programs. The intrinsic motivational change of many of the individuals who were assessed seemed to be directly related to the Management Field Survey.

On an organizational level it was observed that positive changes were made in the support of management training, especially on a supervisory level. Ten of the fifteen organizations (67%) requested management training programs from the local community college. The training programs were held on site, at the requesting organization. Several organizations, including numbers 03 and 14, developed in-service management training reportedly as a direct result of the application of the Management Field Survey. The other organizations continued their already established training programs but reported, in some cases, a change in direction or emphasis as a result of the analysis made of their mean percentile scores.

One interesting case was that of Ajax Company.⁹ They requested that the Management Field Survey be administered to two different groups within their organization so that an analysis of the mean percentile scores of the groups could be done. Their first level supervision and mid to top level management were the two identified groups. In their estimation there was such a differential between the mean percentile scores of the two groups that they concluded there was no way, under present conditions, they could promote from within. (See Appendix G) The top management level mean scores were generally superior to those of all supervisory/management level individuals who had participated in the Management Field Survey study. (See Appendix H) On the other hand, their first line supervisory level group tended to score less than the non-supervisory or pre-management study participants. (See Appendix I) As a result, Ajax Company initiated in-service and actively supported external training programs for their supervisory level staff for the first time in their history.

Reliability of the Management Field Survey

The result of the Koder-Richardson Formula 21 reliability analysis of the Management Field Survey indicates a generally reliable instrument (Appendix J). The total score reliability of .84 is very respectable. The standard error of measurement of 5.8 suggests that individual total scores may

⁹Ajax is a fictitious name used to protect confidentiality. However it refers to an organization which participated extensively in the Management Field Survey process.

be accepted with a good deal of confidence. This standard error of measurement is above average for an instrument of this length.

With the exception of Subtest E, all subtest reliability factors are acceptable. Of course, the more questions there are the higher the reliability.

Subtest E (Quality Control) has problems which need attention. The reliability factor indicates that the subtest items are subject to random guessing. An individual score, therefore, may reflect "test wisdom" rather than knowledge of quality control.

The standard error of measurements for the subtests are typical and are not indicative of extraordinary testing error.

As a whole, the instrument appears to be in good shape and defensible in the face of its intended use.

Validity of the Management Field Survey

The Management Field Survey was developed with the direct input of management practitioners. Because of this method of development, the selection of topics and the use of percentile scores the Management Field Survey appears to have high face validity. The reactions of participants on both an individual and organizational level indicate they accept the face validity of the instrument. For the purpose of this study, face validity is the most important form of validity that could be demonstrated. Without face validity, no matter how

valid the instrument may be in other ways, the test could not have acted as a motivational factor for management training and development. The selection of the testing population was also an important part of the face validity of the Management Field Survey. Participants knew they were being compared with their colleagues, thus their percentile results carried importance to the testee.

Additional studies found that the instrument appears to have construct validity as a measure of content knowledge in the area of management and supervision. There is a measurable differential between the mean percentile score of those who had taken more than three courses in management and those who had taken less than three courses in management. (See Appendixes K and L)

As would be expected the supervisory/management testees produced higher mean percentile scores than did the non-supervisors (Appendixes M and N). The non-supervisory participants did score higher on Sub-test A (Management and Supervision of Personnel). When this information was fed back to participating organizations, the observation was made that often supervisors were promoted on the basis that they were the best technicians and not because of their knowledge or skill in the area of people management. It was therefore concluded on the part of some that management training should take place on personnel topics in order to help prevent possible personnel problems. Some organizations concluded that they might want to consider a revision of their criteria for selection of supervisory employees.

It was also observed that service organizations tended to display higher mean percentile scores than product organizations. (See Appendixes O and P) The exception to this was the subtest of quality control (Subtest E). This would be expected as there tends to be a greater emphasis on statistical quality control in product organizations.

Final Observation

A final observation was that of comparing an opinion survey which covered the same topics as the Management Field Survey with the results of the objective instrument (Management Field Survey). (See Appendix Q) There appeared to be a tendency on the part of the testee, when given the opportunity to determine his or her training needs, to select topics which were in the category of developmental strength rather than developmental need. Though this is a casual observation the implications are so severe, it is believed that further study is warranted in this area. If it is found to be true that individuals tend to select areas of developmental strength when confronted with a subjective survey; and as observed by a search of the literature, most pre-training needs assessment is conducted via subjective survey; then it may be that a great deal of individual and organizational resources are being unnecessarily directed toward developmental strengths rather than need.

APPENDIX

PART I

GRAPHS AND RELATED DATA

APPENDIX A

PARTICIPATING ORGANIZATIONS

I. Product Organizations.

Defined as follows: Those organizations whose primary function is to produce a product.

- A. General Dynamics, Pomona, CA
- B. Ameron Steel, Etiwanda, CA
- C. General Electric, Ontario, CA
- D. Inspiron, Cucamonga, CA
- E. Data Design, Cucamonga, CA
- F. Freightliner, Chino, CA
- G. Sunkist, Ontario, CA (4 groups)
- H. Dynaelectron, Norco, CA
- I. Schlosser Forge, Cucamonga, CA (2 groups)

II. Service Organizations.

Defined as follows: Those organizations whose primary function is to perform a service.

- A. General Telephone, Ontario, CA
- B. City of Ontario, Ontario, CA (3 groups)
- C. City of Chino, Chino, CA
- D. Department of Corrections, State of California
- E. Aztlan Counseling Center, Ontario, CA
- F. Claremont Manor, Claremont, CA
- G. Students, Department of Supervision, Chaffey Community College

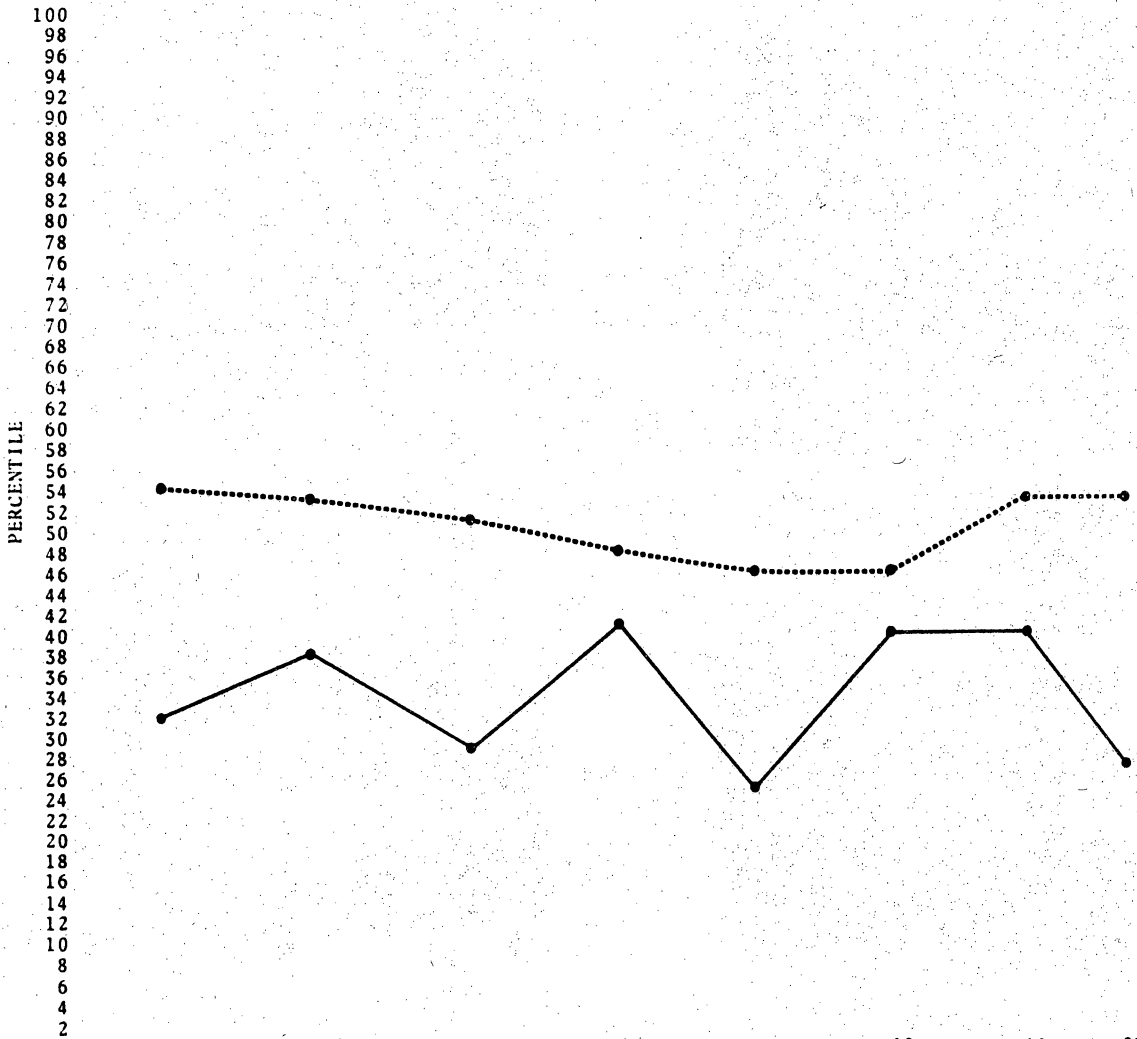
Note: In order that confidentiality might be maintained organizations are not listed in the order in which they participated in the Management Field Survey. All scores will be dealt with anonymously.

MANAGEMENT FIELD SURVEY
 ORGANIZATIONAL MEAN PERCENTILE SCORES
 SUBTEST CATEGORIES

APPENDIX B

Name: Organization #10 (service)

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>TOTAL</u>
	Personnel	Principles	Human Relations	Labor Relations	Quality Control	Financial	Safety	



Organization #10...32	38	29	41	25	40	40	27
All Service Organizations —54	53	51	48	46	46	53	53

APPENDIX C

MANAGEMENT FIELD SURVEY

PURPOSE

The Management Field Survey is a 139 item test of an individual's knowledge of facts and methods which characterize the successful manager or supervisor.

It is hoped that the identification of individual needs, via the survey, will serve as a spring-board into on-going education.

STANDARDIZATION

Standardized norms have been statistically formulated for each of the individual subtests as well as the total test. The norms are reported in terms of percentiles which reflect how a particular individual's score ranks in comparison to the scores of others who have taken the test.

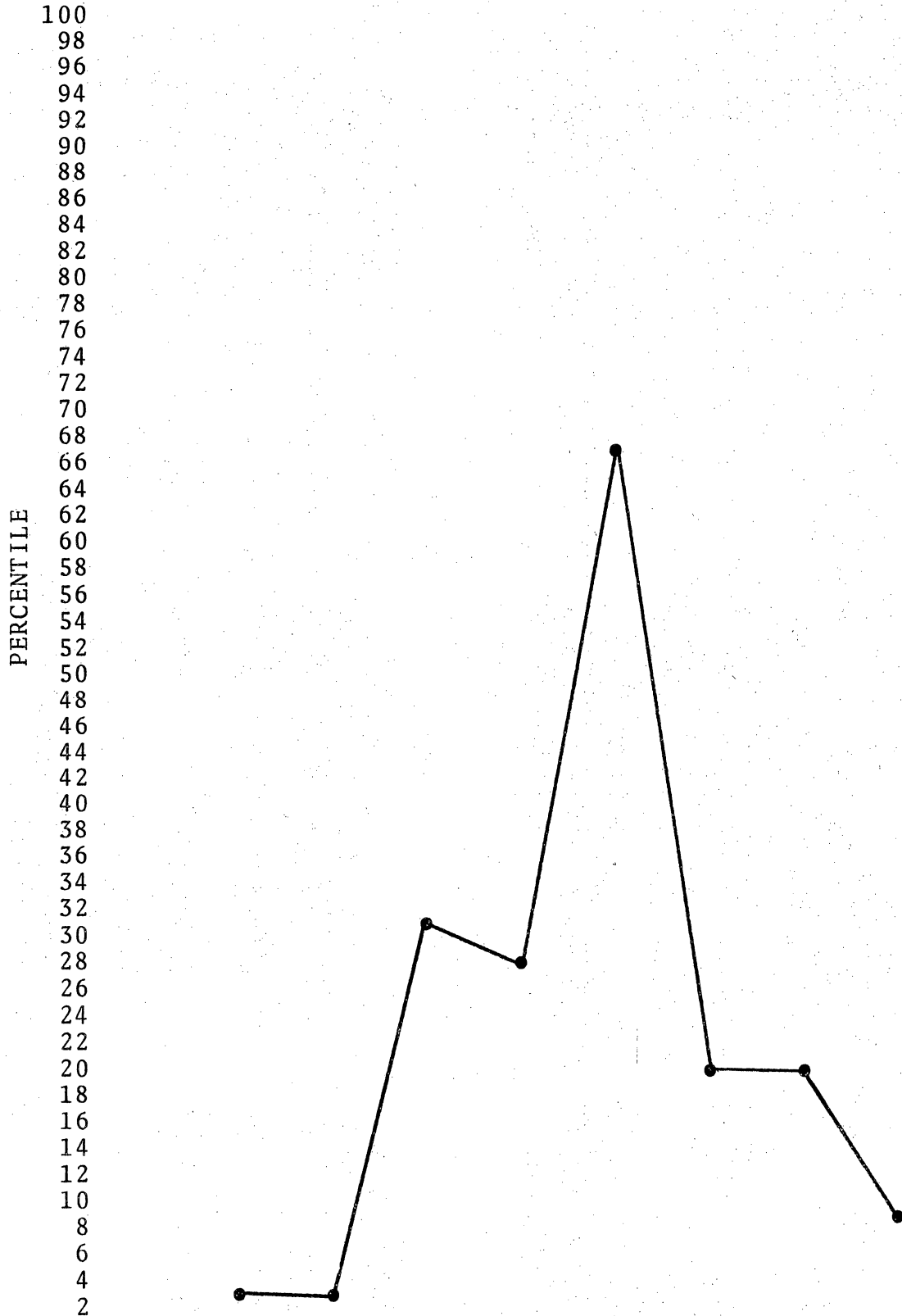
INTERPRETATION

Percentile scores range from 1 to 99 with an average score of 50. A score of 30, for example, means that approximately 30 percent of the people that take the survey achieve the same or a lower score, while approximately 70 percent score higher. A score of 80 means that 80 percent of the people who took the survey achieved the same or a lower score, while approximately 20 percent scored higher.

SUPERVISORY TRAINING ASSESSMENT TOOL
 INDIVIDUAL PERCENTILE SCORES
 SUBTEST CATEGORIES

Name: John Doe

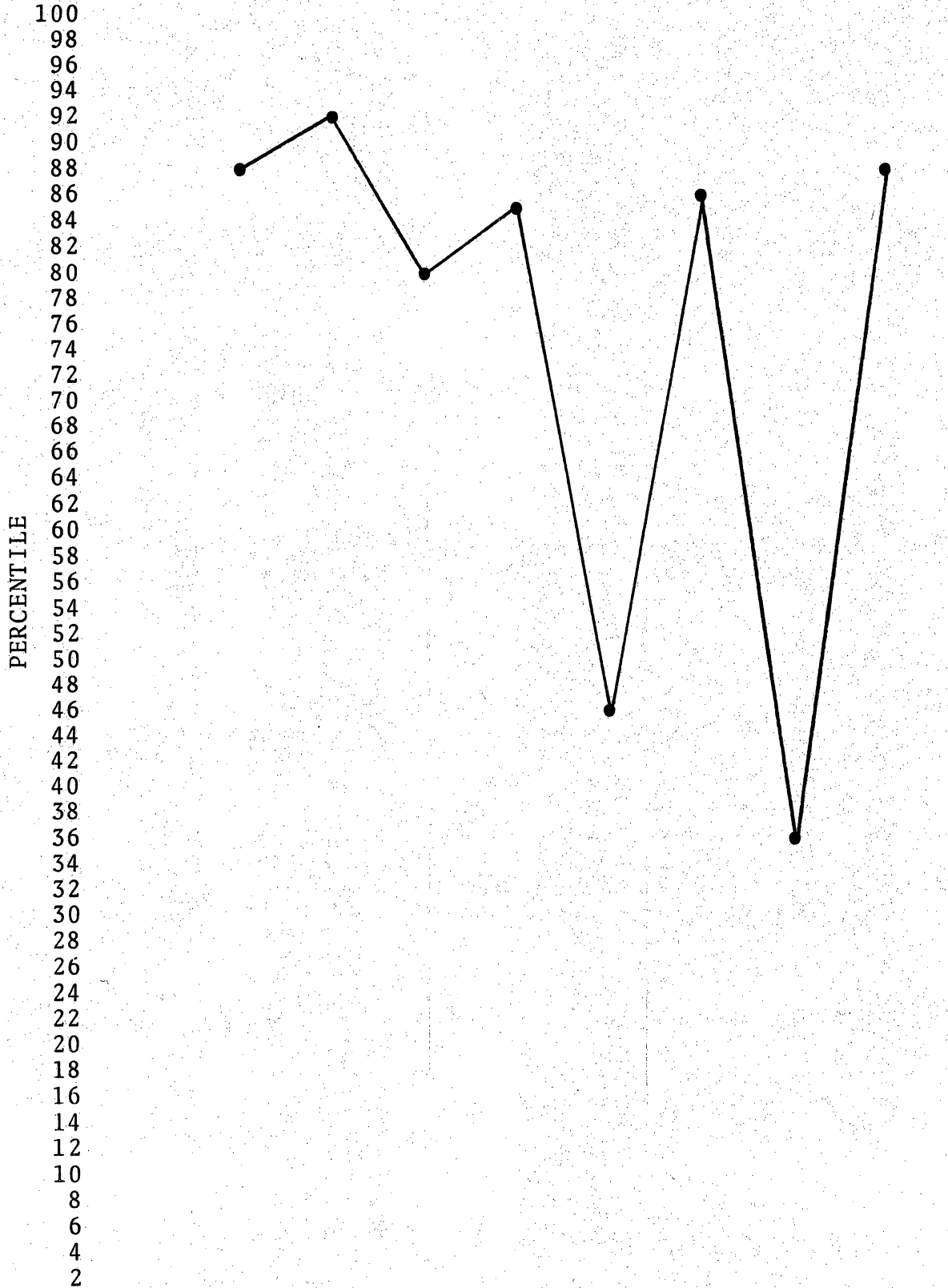
Percentile Rank	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>TOTAL</u>
	03	03	31	28	67	20	20	09



SUPERVISORY TRAINING ASSESSMENT TOOL
 INDIVIDUAL PERCENTILE SCORES
 SUBTEST CATEGORIES

Name: Jane Doe

Percentile Rank	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>TOTAL</u>
	88	92	80	85	46	86	36	88



MANAGEMENT/SUPERVISORY FIELD SURVEY

Topical Course Index

<u>Subtest Category</u>	<u>Topics</u>	<u>Chaffey Community College Management/Supervisory Classes</u>
Management & Supervision of Personnel	What a supervisor/manager should know	Mgmt 501 Survey of Management Skills
Part I	- Decision making	Mgmt 534 Introduction to Super- vision
Subtest A	- Equal employment oppor- tunity	Mgmt 510 Psychology of Super- vision
	- Selecting personnel	Mgmt 525 Affirmative Action in Management
	- Evaluating through written tests	Mgmt 526 Sex & Organizational Games
	- Pre-employment interviewing	Mgmt 527 Women in Management
	- Training new employees	Mgmt 529 Employee Counseling & Interviewing
	- Directing employees	Mgmt 541 Supervisor's Respon- sibility for Personnel
	- Supervising minorities	Mgmt 542 Participative Decision Making
	- Supervisor of employees under 18	Mgmt 543 Insights Into Older Workers
	- Supervising handicap per- sonnel	Mgmt 544 Retirement Planning
	- Supervising women	Mgmt 550 Labor Management Re- lations
	- Supervising older employees	
	- Dealing with employee complaints	
	- Increasing job satisfaction	
Management/Supervisory Principles	- Purpose of management	Mgmt 502 Introduction to Man- agement
Part I	- Responsibility & authority of management	Mgmt 534 Introduction to Super- vision
Subtest B	- Organizational structure	Mgmt 501 Survey of Management Skills
	- Use of committee structure	
	- Functions of managers/ supervisors	

<u>Subtest Category</u>	<u>Topics</u>	<u>Chaffey Community College Management/Supervisory Classes</u>
Management/Supervisory Principles (continued)	<ul style="list-style-type: none"> - Planning - Controlling - Decision making - Difference between management & non-management personnel - Effective leadership - Leadership style - Effective change - Team building - Forces affecting work situations - Working with informal groups 	<ul style="list-style-type: none"> Mgmt 510 Psychology of Supervision Mgmt 524 Human Relations for Supervisors Mgmt 528 Interpersonal Relations Mgmt 541 Supervisor's Responsibility for Management of Personnel Mgmt 542 Participative Decision Making
Human Relations Part I Subtest C	<ul style="list-style-type: none"> - Purpose of human relations in organization - Organizational communication processes - Communicating person-to-person - Motivation - Dealing with attitudes and beliefs - Employee morale - Living with the "grapevine" - Understanding role of feelings - Dealing with problem employee - Dealing with anger - Dealing with conflict 	<ul style="list-style-type: none"> Mgmt 524 Human Relations Mgmt 510 Psychology of Supervision Mgmt 534 Introduction to Supervision Mgmt 528 Interpersonal Relations Mgmt 529 Employee Counseling & Interviewing Mgmt 501 Survey of Management Skills Mgmt 543 Insights Into Older Workers Mgmt 544 Retirement Planning

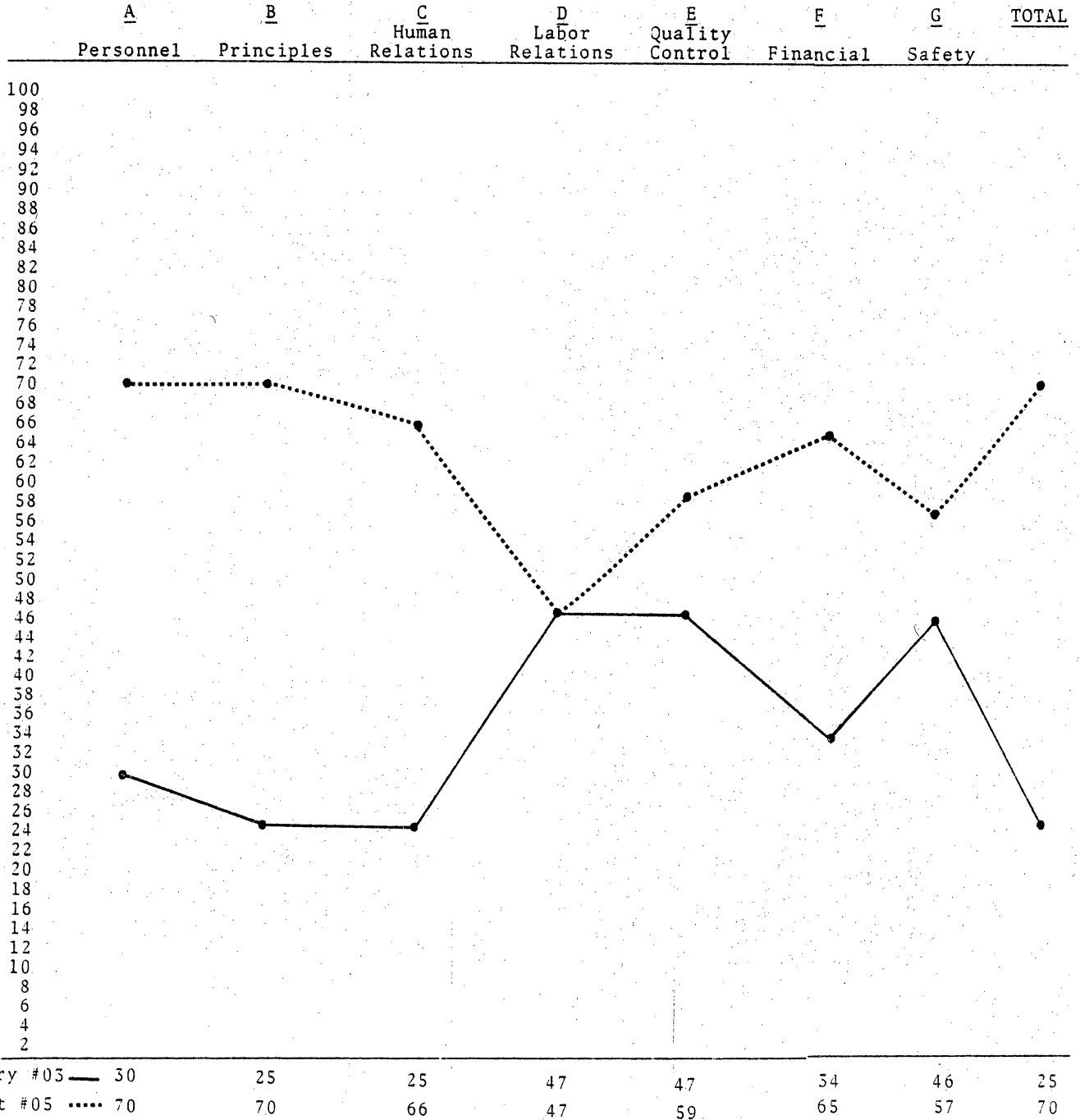
Chaffey Community College
Management/Supervisory Classes

<u>Subtest Category</u>	<u>Topics</u>	
Human Relations (continued)	<ul style="list-style-type: none"> - Employees reaction to change - Understanding worker frustration - Understanding different point of view - Developing trust & confidence 	
Management/Supervisory Responsibility for Labor Relations	<ul style="list-style-type: none"> - Management view of unions - Employee responsibility to the union - "Right to Work" - Labor relations in non-union company - Contract administration - Preventing grievances - Handling grievances 	<p>Mgmt 550 Labor-Management Relations</p> <p>Mgmt 534 Introduction to Supervision</p>
Part II Subtest D		
Management/Supervisory Responsibility for Quality Control	<ul style="list-style-type: none"> - Purpose of quality control - Evaluating quality - Quality responsibility of supervisor - Using data to control quality - Use of product sampling - Understanding quality control charts - Understanding probability - Describing or indexing samples 	<p>Q.C. 502 Introduction to Quality Control</p> <p>Q.C. 522 Quality Control Statistics</p>
Part II Subtest E		

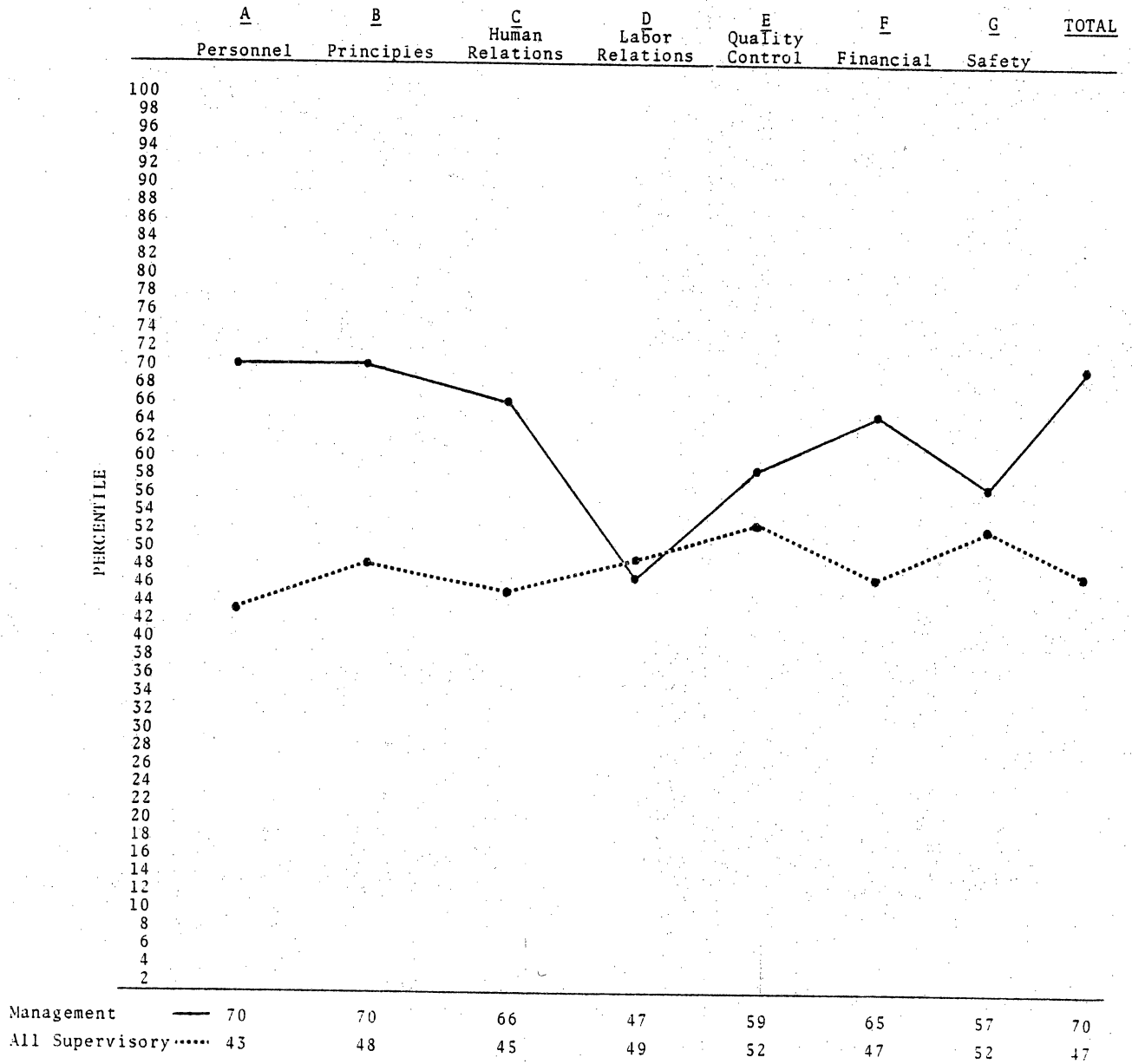
Chaffey Community College
Management/Supervisory Classes

<u>Subtest Category</u>	<u>Topics</u>	
Financial Tools of Management/Supervision Part II Subtest F	<ul style="list-style-type: none">- Understanding the meaning of competition in the American system- Understanding profit- Understanding loss- Economics in relation to production- Understanding the balance sheet- Purpose of a budget- Manager's responsibility for budget- Formulating a budget- Inventory control	Mgmt 503 Accounting for Supervisors and Managers
Management/Supervisor's Responsibility for Safety Part II Subtest G	<ul style="list-style-type: none">- Safety principles- Purpose of industrial hygiene- CAL/OSHA- Correcting hazards- Noise as a hazard- Industrial disability claims- Accident reporting	Mgmt 560 Introduction to CAL/OSHA & Safety Mgmt 562 Recognition of Occupational Health Hazards Mgmt 563 Advanced Industrial Hygiene

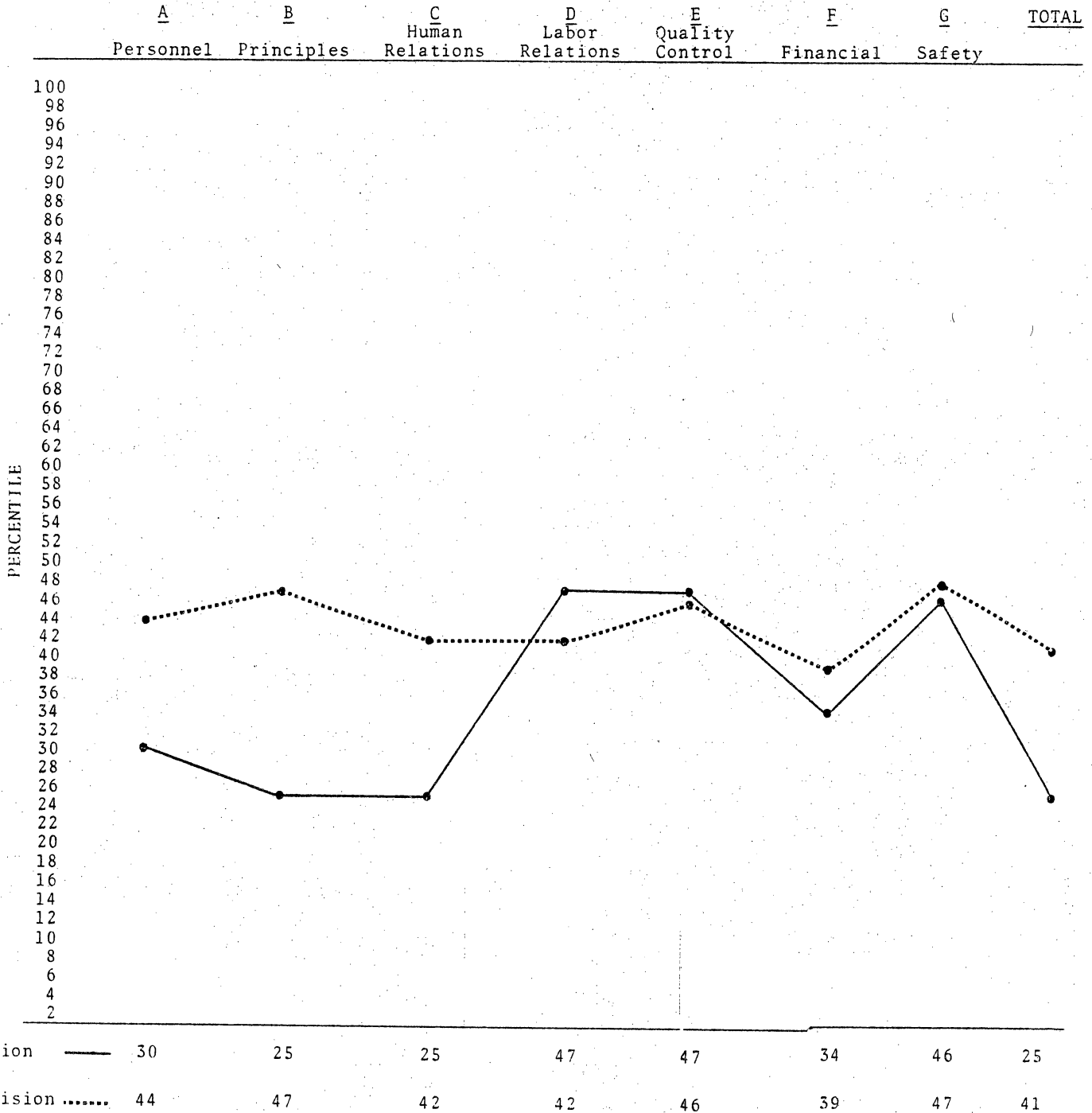
COMPARATIVE MEAN PERCENTILE SCORES FOR
MANAGEMENT AND SUPERVISORY LEVELS
SUBTEST CATEGORIES
AJAX COMPANY



COMPARATIVE MEAN PERCENTILE SCORES FOR
 MANAGEMENT AND ALL SUPERVISORY PARTICIPANTS COMPLETING ASSESSMENT
 SUBTEST CATEGORIES
 AJAX COMPANY



COMPARATIVE MEAN PERCENTILE SCORES FOR
 SUPERVISION AND ALL NON-SUPERVISION PARTICIPANTS COMPLETING THE ASSESSMENT
 SUBTEST CATEGORIES
 AJAX COMPANY



MEAN AND PERCENTILE REPORT FOR
TOTAL POPULATION
BY SUB AND TOTAL SCORES

<u>Type</u>	<u>Total Items</u>	<u>Mean</u>	<u>Percentile</u>
Management and Supervision of Personnel, Sub Score A	28	18.9	44
Management and Supervisory Principles, Sub Score B	24	15.0	47
Human Relations, Sub Score C	37	22.8	44
Management and Supervisory Responsibility for Labor Relations, Sub Score D	12	7.9	47
Management and Supervisory Responsibility for Quality Control, Sub Score E	12	5.1	50
Financial Tools of Manage- ment and Supervision, Sub Score F	15	9.2	45
Management and Supervisory Responsibility for Safety, Sub Score G	11	4.7	51
TOTAL SCORE	139	83.5	45

TEST RELIABILITY REPORT

<u>Test</u>	<u>KR-21*</u>	<u>SEM**</u>
Sub Score A	0.52	2.5
Sub Score B	0.40	2.4
Sub Score C	0.60	2.9
Sub Score D	0.37	1.6
Sub Score E	0.19	1.7
Sub Score F	0.54	1.8
Sub Score G	0.38	1.6
TOTAL SCORES	0.84	5.8

* Koder-Richardson Formula 21 reliability analysis

** Standard Error of Measurement

MEAN AND PERCENTILE REPORT FOR
THREE OR MORE PRIOR TRAINING COURSES
BY SUB AND TOTAL SCORES

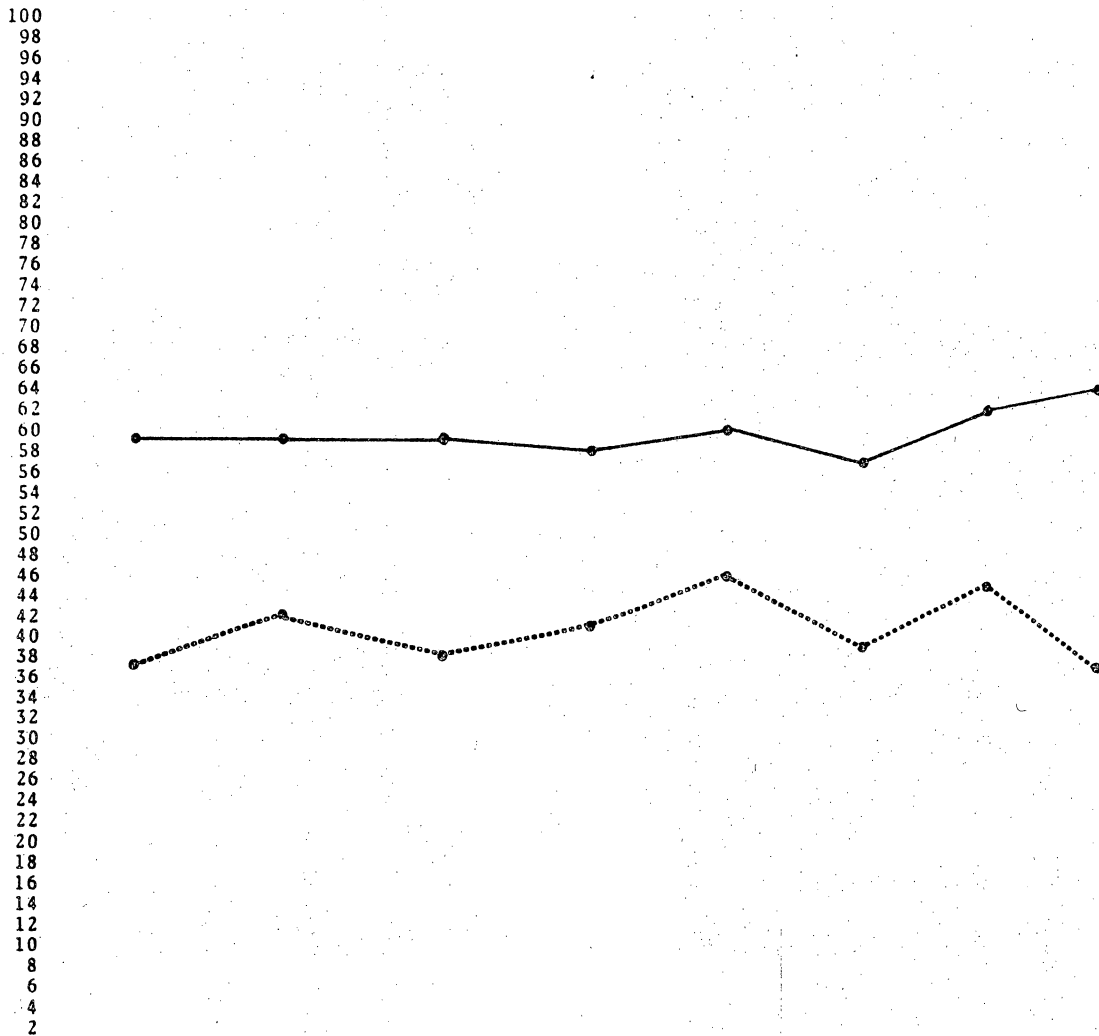
<u>Type</u>	<u>Mean</u>	<u>Percentile</u>
Sub Score A	20.3	59
Sub Score B	16.0	59
Sub Score C	24.4	59
Sub Score D	8.5	58
Sub Score E	5.6	60
Sub Score F	10.1	57
Sub Score G	5.3	62
TOTAL SCORE	90.1	64

MEAN AND PERCENTILE REPORT FOR
LESS THAN THREE PRIOR TRAINING COURSES
BY SUB AND TOTAL SCORES

<u>Type</u>	<u>Mean</u>	<u>Percentile</u>
Sub Score A	18.3	37
Sub Score B	14.5	42
Sub Score C	22.0	38
Sub Score D	7.6	41
Sub Score E	4.9	46
Sub Score F	8.8	39
Sub Score G	4.4	45
TOTAL SCORE	80.4	37

COMPARATIVE MEAN PERCENTILE SCORES
 FOR THOSE COMPLETING 3 OR MORE COURSES AND THOSE COMPLETING
 LESS THAN 3 COURSES IN MANAGEMENT/SUPERVISION

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>TOTAL</u>
	Personnel	Principles	Human Relations	Labor Relations	Quality Control	Financial	Safety	



3 or more courses	59	59	58	60	57	62	64
Less than 3 courses	42	38	41	46	39	45	37

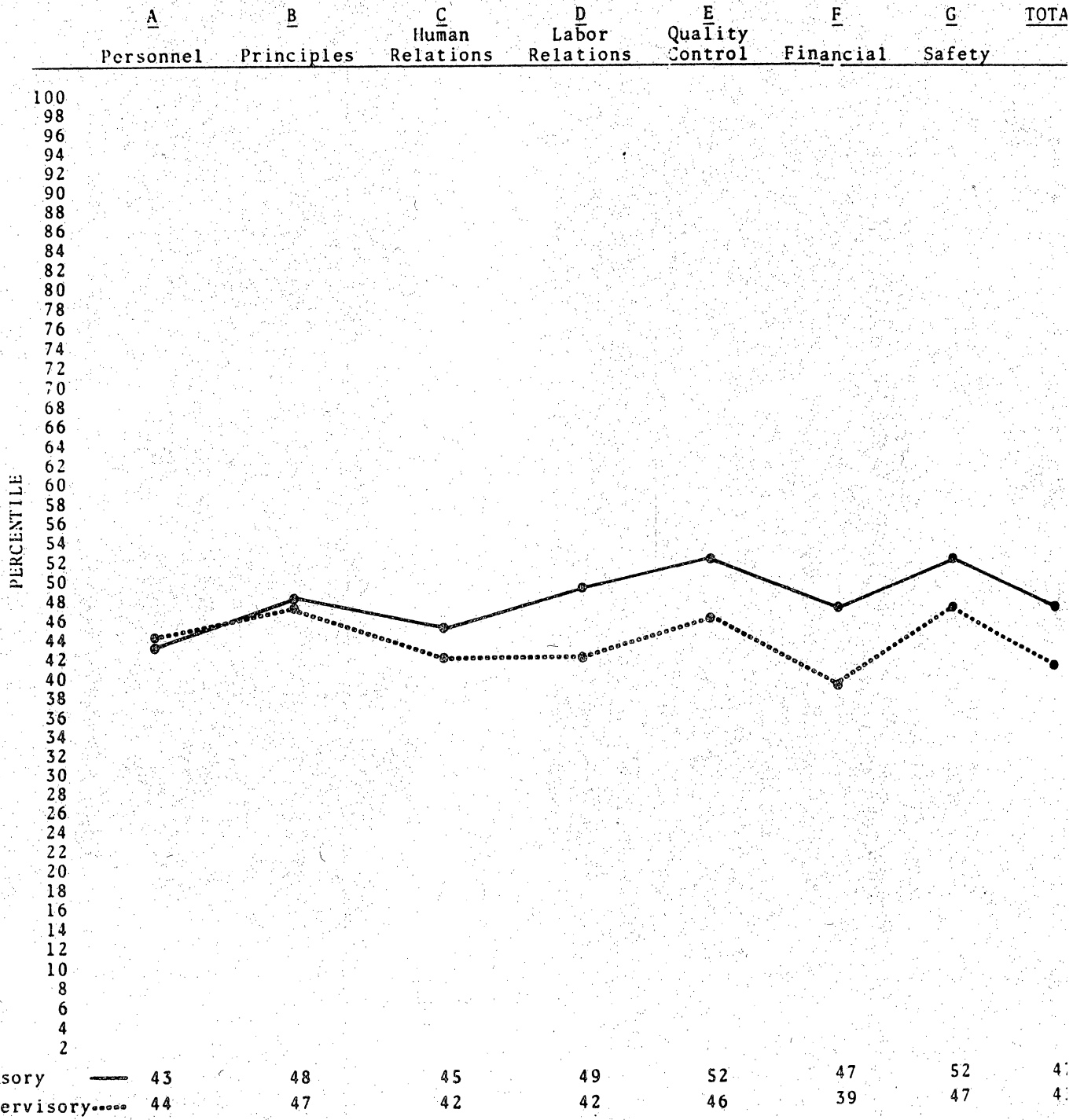
MEAN AND PERCENTILE REPORT FOR
SUPERVISORY/MANAGEMENT EMPLOYEES
BY SUB AND TOTAL SCORES

<u>Type</u>	<u>Mean</u>	<u>Percentile</u>
Sub Score A	18.9	43
Sub Score B	15.0	48
Sub Score C	22.9	45
Sub Score D	8.0	49
Sub Score E	5.2	52
Sub Score F	9.4	47
Sub Score G	4.8	52
TOTAL SCORE	84.1	47

MEAN AND PERCENTILE REPORT FOR
NON-SUPERVISORY EMPLOYEES
BY SUB AND TOTAL SCORES

<u>Type</u>	<u>Mean</u>	<u>Percentile</u>
Sub Score A	19.0	44
Sub Score B	14.9	47
Sub Score C	22.5	42
Sub Score D	7.6	42
Sub Score E	4.9	46
Sub Score F	8.8	39
Sub Score G	4.5	47
TOTAL SCORE	82.1	41

COMPARATIVE MEAN PERCENTILE SCORES
FOR SUPERVISORY AND NON-SUPERVISORY PERSONNEL
SUBTEST CATEGORIES



MEAN AND PERCENTILE REPORT FOR
 PRODUCT ORGANIZATIONS
 BY SUB AND TOTAL SCORES

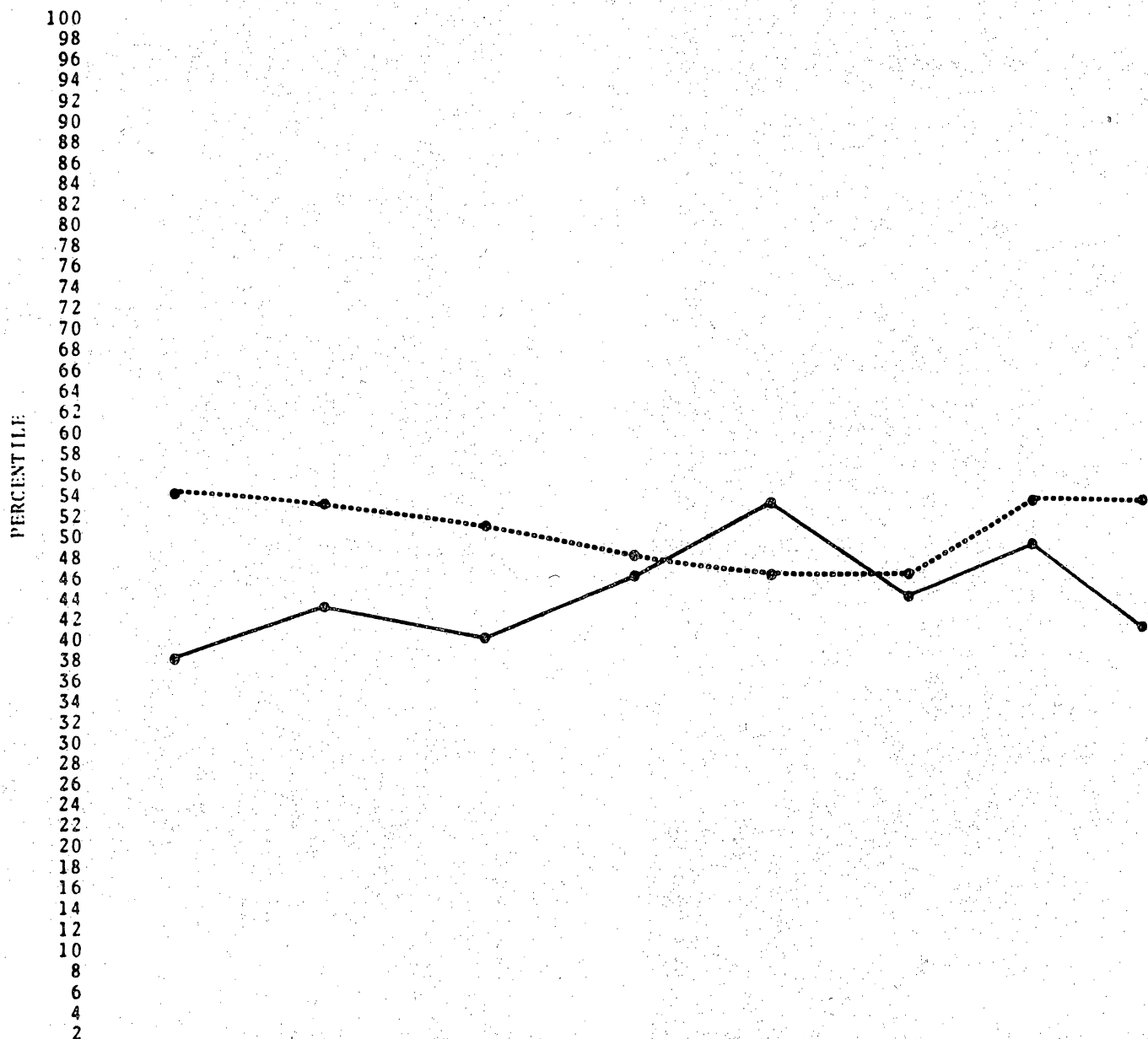
<u>Type</u>	<u>Mean</u>	<u>Percentile</u>
Sub Score A	18.3	38
Sub Score B	14.6	43
Sub Score C	22.2	40
Sub Score D	7.8	46
Sub Score E	5.2	53
Sub Score F	9.1	44
Sub Score G	4.6	49
TOTAL SCORE	81.9	41

MEAN AND PERCENTILE REPORT FOR
 SERVICE ORGANIZATIONS
 BY SUB AND TOTAL SCORES

<u>Type</u>	<u>Mean</u>	<u>Percentile</u>
Sub Score A	19.8	54
Sub Score B	15.5	53
Sub Score C	23.6	51
Sub Score D	7.9	48
Sub Score E	4.9	46
Sub Score F	9.3	46
Sub Score G	4.8	53
TOTAL SCORE	85.9	53

COMPARATIVE MEAN PERCENTILE SCORES
FOR PRODUCT AND SERVICE ORGANIZATIONS
SUBTEST CATEGORIES

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>TOTAL</u>
	Personnel	Principles	Human Relations	Labor Relations	Quality Control	Financial	Safety	



Product	38	43	40	46	53	44	49	41
Service	54	53	51	48	46	46	53	55

TOPIC SURVEY

<u>Decision making</u>	<u>Working with informal groups</u>
<u>Equal employment opportunity</u>	<u>Purpose of human relations in organization</u>
<u>Selecting personnel</u>	<u>Organizational communication processes</u>
<u>Evaluating through written tests</u>	<u>Communicating person-to-person</u>
<u>Pre-employment interviewing</u>	<u>Motivation</u>
<u>Training new employees</u>	<u>Dealing with attitudes and beliefs</u>
<u>Directing employees</u>	<u>Employee morale</u>
<u>Supervising minorities</u>	<u>Living with the "grapevine"</u>
<u>Supervisor of employees under 18</u>	<u>Understanding role of feelings</u>
<u>Supervising handicap personnel</u>	<u>Dealing with problem employees</u>
<u>Supervising women</u>	<u>Dealing with anger</u>
<u>Supervising older employees</u>	<u>Dealing with conflict</u>
<u>Dealing with employee complaints</u>	<u>Employee reaction to change</u>
<u>Increasing job satisfaction</u>	<u>Understanding worker frustrations</u>
<u>Appraisal interviewing</u>	<u>Understanding different points of view</u>
<u>Promoting employees</u>	<u>Developing trust and confidence</u>
<u>Purpose of management</u>	<u>Management view of unions</u>
<u>Responsibility & authority of management</u>	<u>Employee responsibility to the union</u>
<u>Organizational structure</u>	<u>"Right to Work"</u>
<u>Use of committee structure</u>	<u>Labor relations in non-union company</u>
<u>Functions of managers/supervisors</u>	<u>Contract administration</u>
<u>Planning</u>	<u>Preventing grievances</u>
<u>Controlling</u>	<u>Handling grievances</u>
<u>Difference between management & non-management personnel</u>	<u>Purpose of quality control</u>
<u>Effective leadership</u>	<u>Evaluating quality</u>
<u>Leadership style</u>	<u>Quality responsibility of supervisor</u>
<u>Effective change</u>	
<u>Team building</u>	
<u>Forces effecting work situations</u>	

_____ Using data to control quality
_____ Use of product sampling
_____ Understanding probability
_____ Describing or indexing samples

_____ Understanding the meaning of
competition in the American
system
_____ Understanding profit
_____ Understanding loss
_____ Economics in relation to pro-
duction
_____ Understanding the balance sheet
_____ Purpose of a budget
_____ Manager's responsibility for
budget
_____ Formulating a budget
_____ Inventory control

_____ Safety principles
_____ Purpose of industrial hygiene
_____ CAL/OSHA
_____ Correcting hazards
_____ Noise as a hazard
_____ Industrial disability claims
_____ Accident reporting

PART II

MANAGEMENT/SUPERVISORY FIELD
SURVEY INSTRUMENT AND KEY

MANAGEMENT/SUPERVISORY

FIELD SURVEY

DIRECTIONS:

The Management/Supervisory Field Survey is designed to assess educational and training needs in the areas of management and supervision. The survey is administered and scored independently and will not be utilized for personnel selection or evaluation by the sponsoring corporation. Sponsoring corporations will receive only a composite score for their employees. Your individual score will be available only to you (upon request) and no one else.

Survey questions must be answered on the provided scan-tron answer forms. PLEASE DO NOT WRITE IN THE TEST BOOKLET. Use the green scan-tron form for Part I and the red scan-tron form for Part II. Do not mark on the test booklet.

All questions are multiple choice. Choose the best answer for each question and mark the number or letter for that answer on the scan-tron form. Although there is no time limit, better results are obtained by working quickly, not spending too much time on any one item.

MANAGEMENT/SUPERVISORY FIELD SURVEY

PART I

USE GREEN SCAN-TRON SHEET

PLEASE DO NOT WRITE ON TEST BOOKLET

PART I

SUBTEST A - MANAGEMENT AND SUPERVISION OF PERSONNEL

1. A common problem in training new employees is that supervisors often see jobs as being:
 - a. Easier than they really are
 - b. More difficult than they really are
 - c. Too detailed to learn effectively in a short period of time
 - d. Uninteresting
2. The first role a supervisor usually plays in relation to a new subordinate is:
 - a. Spokesperson
 - b. Counselor
 - c. Educator
 - d. Authority figure
3. One way to insure greater worker cooperation is:
 - a. For the supervisor to make the key decision and ask for worker approval
 - b. To allow worker participation in decision making
 - c. For the supervisor to clearly explain the reasons for the decision to the workers
 - d. To allow workers to make some of the less important decisions
4. A supervisor managing a very repetitive task could increase the feeling of job satisfaction by:
 - a. Periodically rearranging the job tasks
 - b. Removing all controls and allowing them to manage themselves
 - c. Increasing the status of the task
 - d. Allowing his/her workers more breaks
5. In an appraisal interview, it is important that a supervisor:
 - a. Not extend too much praise for exceptional performance
 - b. Show the employee the consequences of poor performance
 - c. Comment on good as well as poor performance
 - d. Discuss only good performance

6. As a valued older employee begins to slow down, management should:
 - a. Consider transferring him to less demanding work
 - b. Look for ways to utilize his capabilities
 - c. Suggest an early retirement
 - d. Order a medical check-up
7. A good way to make sure that a disciplinary action has a positive effect is for the supervisor to:
 - a. Make every effort to demonstrate the fairness of the action
 - b. Use it as an opportunity to show an employee how to perform his work more effectively
 - c. Make an example of the culprit at a general meeting of his employees
 - d. Make the penalty a slight one
8. Under normal circumstances, an employee should be appraised after which interval following the conclusion of the training period?
 - a. One year
 - b. One month
 - c. Six months
 - d. Two years
9. Which does not lead to long lasting job satisfaction and motivation?
 - a. Responsibility
 - b. The work itself
 - c. Fringe benefits
 - d. Achievement
10. Discharging an employee because of race is:
 - a. Usually illegal
 - b. Allowable when racial problems impair production
 - c. Acceptable in cases of a Bona Fide Occupational Qualification
 - d. Strictly illegal
11. Promoting from within:
 - a. Assures the absence of morale problems
 - b. Provides the best candidates
 - c. Allows for the introduction of new blood
 - d. Is generally less costly

12. The biggest obstacle to the appointment of more women to supervisory positions once held exclusively by men is:
 - a. The prejudices of men
 - b. The lack of supervisory ability on the part of most women
 - c. The Women's Liberation Movement
 - d. Union pressure

13. The purpose of appraising employee performance is to:
 - a. Put a measure on a subordinate's personality and job attitudes
 - b. Serve as a means to discipline the subordinate
 - c. Show the subordinate how he/she can improve job performance
 - d. Determine future pay and responsibility upgrades

14. When an employee's complaint seems unfounded, a supervisor should:
 - a. Listen carefully to find out why he/she thinks that way
 - b. Show the employee where he/she is wrong
 - c. Try to kid him/her out of it
 - d. Tell him/her to get back to work

15. If a test measures what it is supposed to measure, it is said to be:
 - a. Equitable
 - b. Reliable
 - c. Valid
 - d. Correlated

16. The usefulness of psychological tests is in:
 - a. Obtaining the true information
 - b. Supplementing other selection techniques
 - c. Safeguarding against the unreliability of interviewing
 - d. Seeing how the applicant reacts

17. An employee may refuse to follow supervisory directions if:
 - a. He/she believes his her physical safety or health would be in jeopardy
 - b. He/she believes the work assignment is below his/her job classification or skill level
 - c. He/she has completed eight hours of work and has clocked out for the day
 - d. The shop steward advised not to

18. When a manager staffs his/her organization, the following principle should be followed:
- Select people capable of performing the job
 - Select good people and give them work they can do
 - Select young people and train them in the job
 - Select people with experience
19. An employment practice which disproportionately excludes females and/or minorities from an organization may be unlawful unless the:
- Practice has been approved by the union
 - Employer can prove a business necessity for having the practice
 - Employer conducts at least 50 percent of their business outside of the U.S.
 - Employer did not know of the effect of the employment practice
20. Which of the following is a true statement?
- People under 18 can work after 12:00 AM as long as it doesn't interfere with health.
 - People under 16 may work in a bowling alley.
 - People under 16 may work in a gas station with parents permission.
 - School officials may enter places of employment at any time to investigate child labor conditions.
21. During a pre-employment interview for a position which requires the driving of company vehicles, it is legal to ask:
- To see their valid state drivers license
 - If they are married (to establish dependability)
 - If they have ever been convicted of a felony
 - All of the answers above
22. Failure to integrate women/minorities into a particular job may legally be justified by the fact that:
- Blacks would not be accepted by customers
 - Men are less dexterous (able to work with small parts) than women
 - After reasonable effort, a woman/minority who met the qualifications could not be found
 - Women are not strong enough to do the job

23. Which of the following would be legal to ask during a pre-employment interview?
- Do you have any physical disabilities which would prevent you from doing this job?
 - Have you ever been arrested?
 - Do you have your own transportation to get to work?
 - Do you have adequate child care to insure against loss of work time during your children's illnesses?
24. In order to comply with Title VII of the 1964 Civil Rights Act (Equal Employment Opportunity), an employer should:
- Hire token minorities in order to meet affirmative action quotas
 - Lay off women first because men tend to be the head of the household
 - Avoid placing a black person in a department known to be prejudice
 - Maintain stated job qualifications necessary to perform the job
25. Which of the following statements is NOT true concerning racial/sex/age discrimination?
- Birth certificates and photographs may not be required prior to the point of hire.
 - The company is safe if it can show that there was no intent to discriminate.
 - A white male 45 years of age is protected against discrimination in much the same as blacks and women are.
 - Consideration should be based solely on capability and/or experience.
26. Someone has applied for a job with your company who is confined to a wheelchair. Out of concern for the organization as well as the handicapped person, you should:
- Protect your company from potential lawsuits and insurance problems by telling him/her that you are sorry but the other candidates were more qualified for the job
 - Point out the physical barriers (such as steps) that would make it unsafe for the individual
 - Avoid showing any sign that you noticed the handicap
 - Be direct about the job requirements asking the prospective employee if he/she can do the job

27. Two of the people you supervise occasionally visit with each other in Spanish. Some of their co-workers are complaining and becoming angry because they can't understand what or who is being discussed. The most appropriate and legal solution would be:
- Fire the Spanish speaking employees
 - Counsel with the English speaking employees about their anger
 - Request that the Spanish speaking employees speak English while at work
 - Transfer the Spanish speaking employees to a different department
28. Which of the following is NOT true about women in the work force?
- Most women in the work force in the U.S. work because they want to, not out of economic need as their male counterparts.
 - Women constitute 40 percent of the work force in the U.S.
 - Men outnumber women at the executive level 600 to 1.
 - The average female worker is as well educated as the average male worker.

SUBTEST B - MANAGEMENT SUPERVISORY PRINCIPLES

29. One primary difference between an effective and ineffective leader is in understanding:
- When disciplinary action is necessary
 - That the central function of the employee is production
 - That friendship is the best motivator
 - How a wide range of human needs can be met at work
30. The need for management is present:
- Only in larger companies
 - In all organizations
 - Only in business organizations
 - When there are others to supervise
31. What is the major difference between managers and non-managerial personnel?
- Managers know how to do the work they manage better than the workers.
 - Managers were born to be managers and workers to be workers.
 - Managers perform many tasks which are not typically performed by workers.
 - Managers know how to motivate people better than workers.

32. Which of the following statements best describes the range of authority and responsibility of the first level of management?
- a. Manages workers and a function
 - b. Manages the workers
 - c. Manages work and workers
 - d. Manages functions and a company
33. The most outstanding advantage to using committees is:
- a. Time saving
 - b. Group deliberation and judgment
 - c. Cost
 - d. Getting the right answer
34. Which of the following tasks is specifically a managerial task and cannot effectively be performed by workers?
- a. Planning work
 - b. Making decisions
 - c. Organizing work
 - d. Building a working team
35. Informal groups within the organizational structure:
- a. Form to satisfy mutual needs not being met by the formal organization
 - b. Are most often destructive to organizational goals
 - c. Can be manipulated for organizational goals
 - d. Should be encouraged
36. The most effective managerial style for the manager to practice is:
- a. Autocratic because people need to be told what to do
 - b. Democratic because people produce results when they are involved in decision making
 - c. The one that produces the best results
 - d. Minimum direction because jobs are so complex you must give people free rein
37. A sudden increase in the freedom allowed by a supervisor is most apt to:
- a. Produce better morale since subordinates feel they are being treated as humans
 - b. Result in confusion and possible breakdown in the operation
 - c. Result in increased production
 - d. Increase supervisor's popularity

38. Modern organizational theory suggests that the most effective organizational structure is:
- Matrix
 - Line and staff
 - The one that facilitates output
 - The one that minimizes red tape
39. Studies of leadership show that:
- There are many kinds of leaders
 - All leaders have the same characteristics
 - Leaders are unnecessary
 - Most leaders are born leaders
40. Three major forces interact with each other to influence what happens in a work situation. Which of the following is NOT a major force?
- The type of work
 - The place of work
 - The manager's attitudes and actions
 - The characteristics of the employee
41. Effective planning is dependent upon:
- Predetermined conditions
 - Ideal conditions
 - Static or controlled conditions
 - A systematic analysis of needs, objectives and resources
42. The basic function or functions of supervision is:
- Planning
 - Organizing
 - Controlling
 - All of the above
43. The decision-making process:
- Should be approached in a systematic manner
 - Is independent of the planning process
 - Is synonymous with the planning process
 - Is only effective under ideal conditions
44. Flexibility in planning:
- Is unnecessary
 - Is essential
 - Is potentially detrimental
 - Is only important in matters involving subordinates

45. According to the traditional theorists, the immediate source of a supervisor's authority is from:
- Top management
 - Subordinates
 - Contemporaries
 - Unions
46. Before an individual can be held responsible for deviations from standards, which of the following conditions must be met:
- Regulation of what he is doing must be within his personal control.
 - He/she must know what he/she is supposed to do.
 - He/she must have a general idea of how to accomplish his/her task.
 - He/she must know the basic principles of work simplification.
47. The major control classifications are:
- Open-loop, performance, quantity, quality
 - Open-loop, closed-loop, performance, utility
 - Cost, time, quantity, utility
 - Cost, time, quality, quantity
48. If there is a key to effective supervision, it is the supervisor's:
- Methods and techniques
 - Ability to establish productive interpersonal relationships
 - Knowledge of people and organizations
 - "Political" know-how
49. Some supervisors carry out their leadership activities by the book. Others play it by ear. Both types can be successful provided they:
- Perfect the techniques of leadership
 - Can develop mutual confidence with their subordinates
 - Don't let anything stop them
 - Stay in control of situations
50. Change introduced by management without the input of the subordinates:
- Can be effective, but at a cost
 - Is never effective
 - Is most effective
 - Is favored by most subordinates

51. When subordinates are manipulated to a manager's way of thinking:
- They seldom care
 - They rarely find out
 - They consider it to be a sign of leadership
 - They will eventually realize it and become resentful
52. The time it takes to involve subordinates in change:
- Is unnecessary in well organized companies
 - Is highly overrated by managers
 - May realistically preclude involving subordinates in some decisions
 - Has minimal cost implications

SUBTEST C - HUMAN RELATIONS

53. As a supervisor/manager, what course of action should you follow after discovering one of your employees is an alcoholic?
- Place on probation
 - Terminate
 - Assess the effect on the person's job performance
 - Ignore the problem as it is not the company's business
54. What is one of the most effective ways to boost an employee's morale?
- Health Plan
 - Praise
 - Increased wages
 - Special privileges
55. If one of your employees was to be angry with your statement "We need higher productivity from you," what would your reply as a supervisor be?
- Stand your ground and insist that it is rightfully your responsibility to make such requests
 - Tell him/her that you are merely conveying a message
 - Retract the statement and say it a different way later
 - Let your employees know that you hear them and work for a greater understanding
56. Two of your employees are experiencing a "personality clash" and come to you, as their supervisor, for advice. You should:
- Act as referee, making no judgments as to who is right or wrong
 - Encourage the position which you feel to be correct
 - Stay out of personality conflicts
 - Send them to the personnel department

57. A basic factor in effective supervision is:
- The trust and confidence people have in the supervisor
 - The supervisor's methods and techniques
 - The supervisor's insights and understandings
 - The supervisor's "political" convictions
58. The most important factor in building trust and confidence is:
- Empathy
 - Wisdom
 - Ethical beliefs and behavior
 - Emotional maturity or security
59. Amos T. is a very outspoken direct type of person. As a supervisor, he will have to:
- Be especially careful of what he says to his boss
 - Change his style to a more diplomatic one
 - Stop saying what's on his mind
 - Choose his words carefully, but retain his natural characteristics
60. When subordinates communicate upward:
- Their messages may be biased by what they think their superiors want to receive
 - They have a free choice of oral or written messages
 - They are seldom influenced by their personal goals
 - They usually are objective
61. The attitude of workers toward fringe benefits is:
- Indifference
 - To prefer more benefits to higher wages
 - To want more benefits in addition to increased wages
 - To demand higher wages
62. Each layer in an organization represents:
- Increased unity of command
 - A span of control
 - Increased complexity
 - A different degree of technological development
63. Frustration and conflict are:
- Rare in well run organizations
 - Unavoidable in most work situations
 - Avoidable in all work situations
 - Not related to the study of human relations

64. Perception tends to be:
- Distorted
 - Nonselective
 - Learned
 - Unreliable
65. Employee attitudes toward work:
- Stay constant
 - Have changed substantially
 - Are always positive
 - Demand a nice polite supervisor
66. When we deal with the causes of human behavior, our major concern is:
- Motivation
 - Personality
 - Values
 - Deviance
67. Managers who are skilled in analysis and problem solving are:
- Often bewildered by the actions of employees
 - Usually best at human relations
 - Not dependent on others in the organization
 - Guaranteed to be successful
68. Most important to communication is the avoidance of:
- Defensiveness
 - Cleverness
 - Full disclosure
 - Arrogance
69. Job seniority affects motivation in that:
- Long-term employees are more dedicated to the company
 - Feeling secure, the employee works harder
 - A supervisor is freed to concentrate on newer employees
 - The probability of being layed off is less related to job performance
70. Commonly, the workers' first reaction to change is:
- Annoyance
 - Relief
 - Anxiety
 - Anger

71. In communication, the largest obstacle to understanding is:
- The language is subject to many interpretations
 - The use of jargon
 - The psychological distance between sender and receiver
 - That people hear what they want to hear
72. When a supervisor tries to change an employee's behavior, he/she should expect this to happen:
- Rapidly
 - Slowly
 - With difficulty
 - With resentment
73. Accurate feedback assures the supervisor that his/her employees:
- Understand his/her directives
 - Aren't using the grapevine
 - Are content
 - Are talking to each other
74. The most effective communications are:
- Two way
 - Verbal
 - One way
 - In written form
75. Which of the following is the best description:
- Yellow wooden pencil with soft, black lead
 - Pencil with black lead
 - Wooden pencil with red eraser
 - Yellow, round, wooden pencil with soft, black lead and red eraser
76. Emotions:
- Should not be considered in management decisions
 - Are situational facts to be dealt with
 - Should always be controlled by managers
 - Are healthy but have no place in management decisions
77. Conflict is:
- A sign of poor management-employee relations
 - Something to be avoided
 - An opportunity for creative resolution of differences
 - Always destructive

78. Which of the following is most likely to result from the failure to satisfy human needs?
- a. Apathy
 - b. Determination
 - c. Frustration
 - d. Increased productivity
79. A supervisor who tries to manipulate his/her employees creates an atmosphere of:
- a. Distrust
 - b. Challenge
 - c. Dependency
 - d. Confidence
80. What should the manager do with the grapevine?
- a. Discharge anyone found using it
 - b. Eliminate it
 - c. Learn to live with it
 - d. Rely only on it for factual data
81. Sound human relations occurs when employees:
- a. Can make friendships on the job
 - b. See that their needs are very similar to the goals of the organization
 - c. Are encouraged to work together
 - d. Have their needs satisfied
82. Anger:
- a. Comes from a feeling of being controlled
 - b. Allows for healthy "venting" of pent-up frustrations
 - c. Shows weakness in ability to solve problems
 - d. Should not be expressed by managers
83. To change an employee's behavior, you must first:
- a. Listen to what he/she says
 - b. Make him/her feel accepted
 - c. Explain the consequences of not changing
 - d. Gain his/her cooperation
84. The objective of sound human relations in management is:
- a. To increase growth and profit
 - b. To make workers happy
 - c. To enable people to work together more productively
 - d. To diminish behavioral problems on the job

85. Which of the following statements is least likely to create defensiveness?
- I think you are wrong, but I want to know why you thought that applicant was good.
 - How can you make such a stupid statement about that applicant?
 - I wonder if you are aware of your misperception of that applicant?
 - I don't believe that applicant was very good; did you think he was?
86. In terms of effective communication, what is the most important reason for feedback?
- It indicates to the sender the message has been received
 - It breaks up the sender's message into shorter units
 - It increases the probability that meaning will be shared
 - It brings the receiver into the communication process
87. Tom is working on a report. Joe is telling him about his date. Which of the following statements best identifies the feelings Tom may be experiencing?
- "Come on - cut the talk - can't you see I'm busy?"
 - "Joe, your talking about your date when I'm trying to write makes me very nervous."
 - "I'm feeling like I want to punch you in the mouth."
 - "If you don't stop talking, I won't be able to write my report."
88. The behavior that is most likely to reduce conflict in groups is:
- Openness
 - Secrecy
 - Purposefully pursuing own goals
 - Changing the subject
89. Some people say things that just "tick you off." When this happens you should:
- Say nothing until you have come up with a good response
 - Be thankful - it gets your attention
 - Break in and describe your reaction
 - Withhold your response and listen until they make their point in full

MANAGEMENT/SUPERVISORY FIELD SURVEY

PART II

USE PINK SCAN-TRON SHEET

PLEASE DO NOT WRITE ON THIS TEST

SUBTEST D - MANAGEMENT AND SUPERVISORY RESPONSIBILITY FOR
LABOR RELATIONS

1. In a non-union company, a supervisor may:
 1. Give his/her personal opinions on unions
 2. Tell employees what benefits they will lose if they vote for a union
 3. Behave in any manner he/she chooses
 4. Restrict all discussion of unions on company premises
2. "Right to Work" means:
 1. Minority applicants must be given priority
 2. Employees cannot be terminated without a good reason
 3. A union can compel an employer to hire only their members
 4. An employee does not have to belong to a union to hold a job
3. Management resists union organization because:
 1. Union employees productivity is lower than non-union employees
 2. A union becomes a third party in the company/employee decision process
 3. Company costs are higher with a union
 4. Union employees are absent more frequently than non-union employees
4. When employees certify a union to represent them, they must:
 1. Give up their right to present their problems to management as individuals
 2. Join the union within thirty days
 3. Abide by the terms and conditions of the collective bargaining agreement
 4. In the future, work for companies that have the same union

5. A smart supervisor will favorably impress his boss by:
 1. Handling labor problems carefully
 2. Bypassing the union contract without causing a grievance
 3. Establishing friendships with union leaders
 4. Never taking action in labor matters without first checking with his boss

6. When confronted with a grievance that obviously has no substance, a supervisor should:
 1. Initiate disciplinary action against the employees who filed the grievance
 2. Treat it as thoughtfully and promptly as any other grievance
 3. Suggest the employees think it over before making an issue of it
 4. Simply refuse to take action on the grievance

7. When the union and management fail to achieve a settlement and agree to abide by one recommended by a third party decision, the process is called:
 1. Conciliation
 2. Arbitration
 3. Mediation
 4. Negotiation

8. Before making a ruling involving a serious labor matter, it is a good idea for a supervisor to first:
 1. Check the union contract
 2. Check with the personnel department
 3. Check with the shop steward
 4. Check with another supervisor

9. In the event a supervisor makes a decision contrary to the stipulations in the union contract:
 1. The employee has the right to ignore the decision
 2. He/she will be excused because they didn't write the contract
 3. He/she may be liable in a civil suit
 4. He/she is likely to find their decision reversed or a grievance filed

10. The most common grievances resulting in arbitration involve:
 1. Transfers and layoffs
 2. Overtime
 3. Discipline cases
 4. Wage disagreements

11. In the receiving, handling and disposition of grievances:
 1. Everything depends upon how powerful the union is in the plant
 2. Everything depends upon the attitude of the employee
 3. Everything depends upon the facts of the situation
 4. A supervisor's attitude will determine to a great degree how amicably they are settled
12. One of the first things a supervisor should do after hearing a grievance is to:
 1. Assemble as much factual evidence as he/she can
 2. Decide if it is worth pursuing
 3. Report it to the shop steward
 4. Report it to his/her supervisor

SUBTEST E - MANAGEMENT AND SUPERVISORS RESPONSIBILITY FOR QUALITY CONTROL

13. There are several commonly used methods to describe or index the type of plan used in acceptance sampling. Which of the following is NOT one of these?
 1. LTPD (Lot Tolerance Percent Defective)
 2. AQL (Acceptable Quality Level)
 3. AOQL (Average Outgoing Quality Limit)
 4. ARD (Allocated Reliability Deviation)
14. Which of the following is a commonly used quality control chart utilizing variables data:
 1. X & R Chart
 2. P Chart
 3. Thorndike Chart
 4. Poisson Chart
15. Many quality control decisions related to manufacturing processes or manufactured products require the use of data. Data which represents actual recorded measurements, such as the diameter of phonograph needles, is considered:
 1. Attributes data
 2. Variables data
 3. Binomial data
 4. Failure data

16. The technique of utilizing data to depict graphically the chronological performance of a process which will also indicate when assignable causes of excessive variation have occurred is:
1. Frequency distribution
 2. Sampling plan
 3. Statistical control charting
 4. Hypothesis testing
17. The RMS deviation is a commonly used measure of dispersion. As applied to the normal curve, practical limits of $\pm 3\sigma$ from the mean are often used. The corresponding area under the normal curve is:
1. 99.73%
 2. 50.00%
 3. 85.46%
 4. 100.00%
18. It is often helpful to know where a process or product tends to be "centered" with respect to specified requirements. One of the most commonly used measures for central tendency is:
1. RMS (standard deviation)
 2. Range
 3. Quartile deviation
 4. Mean
19. The basic operation principle of a quality assurance program is:
1. Deficiency detection
 2. Deficiency prevention
 3. Deficiency correction
 4. Deficiency data feedback
20. The best evidence of acceptable quality is:
1. Complete compliance with design requirements
 2. A low rejection rate
 3. A satisfied customer
 4. Long-term usefulness
21. Who has the initial responsibility for manufactured product quality?
1. The operator
 2. The inspector
 3. The vice president
 4. The quality manager

22. Quality Assurance is best described as a:
1. Required manufacturing practice
 2. Ethical responsibility
 3. Contractual obligation
 4. Management tool
23. Establishing the quality policy for the company is typically the responsibility of:
1. Quality Control
 2. Marketing Department
 3. Top Management
 4. Customer
24. A quality assurance program requires:
1. A systematic approach
 2. Unlimited funding
 3. Customer sponsorship
 4. Access to a computer

SUBTEST F - FINANCIAL TOOLS OF MANAGEMENT/SUPERVISION

25. Correction of a budget variance:
1. Should be the responsibility of the accounting department
 2. Must start with the responsible manager
 3. Can best be handled by a CPA firm
 4. Must start with lower level employees
26. If there were only a few goods and one of them became considerably cheaper, we would tend to buy:
1. Less of the cheaper good
 2. More of all goods
 3. More of the cheaper good
 4. Less of all goods
27. If business people were to decide to increase their inventories:
1. Employment in manufacturing would probably improve
 2. They would try to restrict their sales
 3. The levels of output and income would probably fall
 4. The price level would tend to fall
28. If a good can be sold for a profit, it follows that:
1. Its production will probably decline
 2. Someone has a monopoly of that good
 3. It is worth more than the resources needed to produce it
 4. The profit will increase inflation

29. Fixed costs of production are those which:
1. Rise as output rises
 2. Are always the same amount per unit of output
 3. Are always the same in total amount
 4. Are always a fixed proportion of total costs
30. If, at the current market price, buyers want more units than sellers wish to provide:
1. The price will be pushed up
 2. The price must fall further
 3. Profits are apparently large
 4. Price is above equilibrium
31. If a firm was to find its inventories rising contrary to expectations:
1. They would generally decide to raise prices
 2. Total output would be likely to decline
 3. They would tend to increase their hiring
 4. There would probably be an increase in saving
32. In the American economic system, competition:
1. Is maintained by government when necessary
 2. Means that the most successful competitor gets a monopoly
 3. Is generally considered less efficient than government subsidy
 4. Has never been considered desirable
33. A social benefit of competition is that:
1. Full employment is assured
 2. Consumers pay high prices
 3. Producers must pay going market prices for resources and labor
 4. All competitors make profits
34. Which of the following is NOT true concerning the use of a budget?
1. The budget process can be used as a powerful force in motivating managers to work toward the goals of the company.
 2. A budget is a tool for planning.
 3. A budget is useful in communicating plans.
 4. A budget is a poor standard measure of performance.
35. The addition to total cost resulting from the production of an additional unit is:
1. Marginal cost
 2. Total revenue
 3. Inventory price
 4. Optimal Cost Point

36. All of the following are categories of marketing cost except:
1. Fixed material
 2. Warehousing and handling
 3. Direct selling
 4. Advertising and sales promotion
37. All operations of a business must be geared to:
1. Advertising efforts
 2. Expected sales
 3. New customer research
 4. Labor market projections
38. The category of accounts dealing with a firm's valuable property is its:
1. Liabilities
 2. Expenses
 3. Assets
 4. Revenues
39. Manufacturing costs are usually accumulated in all of the following categories except:
1. Material
 2. Labor
 3. Overhead
 4. Direct sales

SUBTEST G - MANAGEMENT AND SUPERVISORS RESPONSIBILITY FOR SAFETY

40. Seventy percent of industrial disability claims result from:
1. Hearing disorders
 2. Lung disorders
 3. Skin disorders
 4. Broken bones
41. The initials OSHA stand for:
1. Occupational Safety and Health Act
 2. Office Standards and Hazards Act
 3. Occupational Standards and Hazards Act
 4. Official Safety and Health Agency

42. The primary purpose of the accident report is to:
1. Determine frequency and severity rates
 2. Find and fix fault, so further incidents will be prevented
 3. Provide facts and information and identify hazards
 4. Provide information of insured and uninsured costs
43. Combustible liquids are those with flash points at or above:
1. 160 degrees
 2. 125 degrees
 3. 100 degrees
 4. 140 degrees
44. An employer who receives a citation after a CAL/OSHA inspection has a right to appeal if:
1. He/she appeals within 24 hours after receipt of the notification by mail
 2. He/she appeals within 30 working days after receipt of notification by mail
 3. He/she appeals within 15 working days after receipt of notification by mail
 4. None of the above (CAL/OSHA citations may not be appealed)
45. The steps to correcting employee exposure to hazards in order of priority are:
1. Administrative procedures; engineering and correct hazards; and protective equipment for employees
 2. Protective equipment for employees; engineering and correct hazards; and administrative procedures
 3. Engineering and correct hazards; administrative procedures; and protective equipment for employees
 4. Engineering and correct hazards; protective equipment for employees; and administrative procedures
46. The industrial health and safety laws in California are enforced by:
1. Local fire and health agencies
 2. Federal OSHA
 3. Environmental Protection Agency
 4. State OSHA
47. When calculating accident frequency and severity rates, which of the following must be considered?
1. Injury
 2. Lost-time accident
 3. Accidents covered by workmen's compensation
 4. Accidents due to negligence

48. The TLV (Threshold Limit Value) for noise is expressed as:
 1. 100 mg/m³
 2. 90 db
 3. 80 ppm
 4. 70 cm

49. California Safety and Health standards are:
 1. At least as strict as the federal standards
 2. Less strict than the federal standards
 3. Equal to the federal standards
 4. Have nothing to do with the federal standards

50. Industrial Hygiene is primarily concerned with:
 1. Development of health and safety standards
 2. Compliance with air pollution laws
 3. Compliance with all safety standards
 4. The control of environmental health hazards that arise out of employment

MANAGEMENT/SUPERVISORY FIELD SURVEY

PART I KEY

Subtest A - Management and Supervision of Personnel

1. A common problem in training new employees is that supervisors often see jobs as being:
 - a. Easier than they really are
2. The first role a supervisor usually plays in relation to a new subordinate is:
 - c. Educator
3. One way to insure greater worker cooperation is:
 - b. To allow worker participation in decision making
4. A supervisor managing a very repetitive task could increase the feeling of job satisfaction by:
 - a. Periodically rearranging the job tasks
5. In an appraisal interview, it is important that a supervisor:
 - c. Comment on good as well as poor performance
6. As a valued older employee begins to slow down, management should:
 - b. Look for ways to utilize his capabilities
7. A good way to make sure that a disciplinary action has a positive effect is for the supervisor to:
 - b. Use it as an opportunity to show an employee how to perform his work more effectively
8. Under normal circumstances, an employee should be appraised after which interval following the conclusion of the training period?
 - c. Six months

9. Which does not lead to long lasting job satisfaction and motivation?
 - c. Fringe benefits
10. Discharging an employee because of race is:
 - d. Strictly illegal
11. Promoting from within:
 - d. Is generally less costly
12. The biggest obstacle to the appointment of more women to supervisory positions once held exclusively by men is:
 - a. The prejudices of men
13. The purpose of appraising employee performance is to:
 - c. Show the subordinate how he/she can improve job performance
14. When an employee's complaint seems unfounded, a supervisor should:
 - a. Listen carefully to find out why he/she thinks that way
15. If a test measures what it is supposed to measure, it is said to be:
 - c. Valid
16. The usefulness of psychological tests is in:
 - b. Supplementing other selection techniques
17. An employee may refuse to follow supervisory directions if:
 - a. He/she believes his/her physical safety or health would be in jeopardy
18. When a manager staffs his/her organization, the following principle should be followed:
 - a. Select people capable of performing the job
19. An employment practice which disproportionately excludes females and/or minorities from an organization may be unlawful unless the:
 - b. Employer can prove a business necessity for having the practice

20. Which of the following is a true statement?
- d. School officials may enter places of employment at any time to investigate child labor conditions
21. During a pre-employment interview for a position which requires the driving of company vehicles, it is legal to ask:
- c. If they have ever been convicted of a felony
22. Failure to integrate women/minorities into a particular job may legally be justified by the fact that:
- c. After reasonable effort, a woman/minority who met the qualifications could not be found
23. Which of the following would be legal to ask during a pre-employment interview?
- a. Do you have any physical disabilities which would prevent you from doing this job?
24. In order to comply with Title VII of the 1964 Civil Rights Act (Equal Employment Opportunity), an employer should:
- d. Maintain stated job qualifications necessary to perform the job
25. Which of the following statements is NOT true concerning racial/sex/age discrimination?
- b. The company is safe if it can show that there was no intent to discriminate
26. Someone has applied for a job with your company who is confined to a wheelchair. Out of concern for the organization as well as the handicapped person, you should:
- d. Be direct about the job requirements asking the prospective employee if he/she can do the job
27. Two of the people you supervise occasionally visit with each other in Spanish. Some of their co-workers are complaining and becoming angry because they can't understand what or who is being discussed. The most legal and appropriate solution would be:
- b. Counsel with the English speaking employees about their anger
28. Which of the following is NOT true about women in the work force?
- a. Most women in the work force in the U.S. work because they want to, not out of economic need as their male counterparts

Subtest B - Management/Supervisory Principles

29. One primary difference between an effective and ineffective leader is in understanding:
- d. How a wide range of human needs can be met at work
30. The need for management is present:
- b. In all organizations
31. What is the major difference between managers and non-managerial personnel?
- c. Managers perform many tasks which are not typically performed by workers
32. Which of the following statements best describes the range of authority and responsibility of the first level of management?
- c. Manages work and workers
33. The most outstanding advantage to using committees is:
- b. Group deliberation and judgment
34. Which of the following tasks is specifically a managerial task and cannot effectively be performed by workers?
- d. Building a working team
35. Informal groups within the organizational structure:
- a. Form to satisfy mutual needs not being met by the formal organization
36. The most effective managerial style for the manager to practice is:
- c. The one that produces the best results
37. A sudden increase in the freedom allowed by a supervisor is most apt to:
- b. Result in confusion and possible breakdown in the operation
38. Modern organizational theory suggests that the most effective organizational structure is:
- c. The one that facilitates output

39. Studies of leadership show that:
 - a. There are many kinds of leaders
40. Three major forces interact with each other to influence what happens in a work situation. Which of the following is NOT a major force?
 - b. The place of work
41. Effective planning is dependent upon:
 - d. A systematic analysis of needs, objectives and resources
42. The basic function or functions of supervision is:
 - d. All of the above
43. The decision-making process:
 - a. Should be approached in a systematic manner
44. Flexibility in planning:
 - b. Is essential
45. According to the traditional theorists, the immediate source of a supervisor's authority is from:
 - a. Top management
46. Before an individual can be held responsible for deviations from standards, which of the following conditions must be met:
 - a. Regulation of what he is doing must be within his personal control
47. The major control classifications are:
 - d. Cost, time, quality, quantity
48. If there is a key to effective supervision, it is the supervisor's:
 - b. Ability to establish productive interpersonal relationships
49. Some supervisors carry out their leadership activities by the book. Others play it by ear. Both types can be successful provided they:
 - b. Can develop mutual confidence with their subordinates

50. Change introduced by management without the input of the subordinates:
- a. Can be effective, but at a cost
51. When subordinates are manipulated to a manager's way of thinking:
- d. They will eventually realize it and become resentful
52. The time it takes to involve subordinates in change:
- c. May realistically preclude involving subordinates in some decisions

Subtest C - Human Relations

53. As a supervisor/manager, what course of action should you follow after discovering one of your employees is an alcoholic?
- c. Assess the effect on the person's job performance
54. What is one of the most effective ways to boost an employee's morale?
- b. Praise
55. If one of your employees was to be angry with your statement, "We need higher productivity from you," what would your reply as a supervisor be?
- d. Let your employees know that you hear them and work for a greater understanding
56. Two of your employees are experiencing a "personality clash" and come to you, as their supervisor, for advice. You should:
- a. Act as referee, making no judgments as to who is right or wrong
57. A basic factor in effective supervision is:
- a. The trust and confidence people have in the supervisor
58. The most important factor in building trust and confidence is:
- c. Ethical beliefs and behavior

59. Amos T. is a very outspoken direct type of person. As a supervisor, he will have to:
- d. Choose his words carefully, but retain his natural characteristics
60. When subordinates communicate upward:
- a. Their messages may be biased by what they think their superiors want to receive
61. The attitude of workers toward fringe benefits is:
- c. To want more benefits in addition to increased wages
62. Each layer in an organization represents:
- b. A span of control
63. Frustration and conflict are:
- b. Unavoidable in most work situations
64. Perception tends to be:
- c. Learned
65. Employee attitudes toward work:
- b. Have changed substantially
66. When we deal with the causes of human behavior, our major concern is:
- a. Motivation
67. Managers who are skilled in analysis and problem solving are:
- b. Usually best at human relations
68. Most important to communication is the avoidance of:
- a. Defensiveness
69. Job seniority affects motivation in that:
- d. The probability of being layed off is less related to job performance
70. Commonly, the workers' first reaction to change is:
- c. Anxiety

71. In communication, the largest obstacle to understanding is:
- d. That people hear what they want to hear
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73. Accurate feedback assures the supervisor that his/her employees:
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78. Which of the following is most likely to result from the failure to satisfy human needs?
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79. A supervisor who tries to manipulate his/her employees creates an atmosphere of:
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- c. Learn to live with it
81. Sound human relations occurs when employees:
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82. Anger:
- a. Comes from a feeling of being controlled

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87. Tom is working on a report. Joe is telling him about his date. Which of the following statements best identifies the feelings Tom may be experiencing?
- b. "Joe, your talking about your date when I'm trying to write makes me very nervous."
88. The behavior that is most likely to reduce conflict in groups is:
- a. Openness
89. Some people say things that just "tick you off." When this happens you should:
- d. Withhold your response and listen until they make their point in full

Subtest D - Management and Supervisory Responsibility for Labor Relations

1. In a non-union company, a supervisor may:
 1. Give his/her personal opinions on unions
2. "Right to work" means:
 4. An employee does not have to belong to a union to hold a job
3. Management resists union organization because:
 2. A union becomes a third party in the company/employee decision process

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5. A smart supervisor will favorably impress his boss by:
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6. When confronted with a grievance that obviously has no substance, a supervisor should:
 2. Treat it as thoughtfully and promptly as any other grievance
7. When the union and management fail to achieve a settlement and agree to abide by one recommended by a third party decision, the process is called:
 2. Arbitration
8. Before making a ruling involving a serious labor matter, it is a good idea for a supervisor to first:
 1. Check the union contract
9. In the event a supervisor makes a decision contrary to the stipulations in the union contract:
 4. He/she is likely to find their decision reversed or a grievance filed
10. The most common grievances resulting in arbitration involve:
 3. Discipline cases
11. In the receiving, handling and disposition of grievances:
 4. A supervisor's attitude will determine to a great degree how amicably they are settled
12. One of the first things a supervisor should do after hearing a grievance is to:
 1. Assemble as much factual evidence as he/she can

Subtest E - Management and Supervisors' Responsibility for Quality Control

13. There are several commonly used methods to describe or index the type of plan used in acceptance sampling. Which of the following is NOT one of these:
 4. ARD (Allocated Reliability Deviation)

14. Which of the following is a commonly used quality control chart utilizing variables data:
 1. X & R Chart
15. Many quality control decisions related to manufacturing processes or manufactured product require the use of data. Data which represents actual recorded measurements, such as the diameter of phonograph needles, is considered:
 2. Variables data
16. The technique of utilizing data to depict graphically the chronological performance of a process which will also indicate when assignable causes of excessive variation have occurred is:
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22. Quality assurance is best described as a:
 4. Management tool
23. Establishing the quality policy for the company is typically the responsibility of:
 3. Top management

24. A quality assurance program requires:

1. A systematic approach

Subtest F - Financial Tools of Management/Supervision

25. Correction of a budget variance:

2. Must start with the responsible manager

26. If there were only a few goods and one of them became considerably cheaper, we would tend to buy:

3. More of the cheaper good

27. If business people were to decide to increase their inventories:

1. Employment in manufacturing would probably improve

28. If a good can be sold for a profit, it follows that:

3. It is worth more than the resources needed to produce it

29. Fixed costs of production are those which:

4. Are always a fixed proportion of total costs

30. If, at the current market price, buyers want more units than sellers wish to provide:

1. The price will be pushed up

31. If a firm were to find its inventories rising contrary to expectations:

2. Total output would be likely to decline

32. In the American economic system, competition:

1. Is maintained by government when necessary

33. A social benefit of competition is that:

3. Producers must pay going market prices for resources and labor

34. Which of the following is NOT true concerning the use of a budget:

4. A budget is a poor standard measure of performance

35. The addition to total cost resulting from the production of an additional unit is:
 1. Marginal cost
36. All of the following are categories of marketing cost except:
 3. Direct selling
37. All operations of a business must be geared to:
 2. Expected sales
38. The category of accounts dealing with a firm's valuable property is its:
 3. Assets
39. Manufacturing costs are usually accumulated in all of the following categories except:
 4. Direct sales

Subtest G - Management and Supervisors' Responsibility for Safety

40. Seventy percent of industrial disability claims result from:
 3. Skin disorders
41. The initials OSHA stand for:
 1. Occupational Safety and Health Act
42. The primary purpose of the accident report is to:
 3. Provide facts and information and identify hazards
43. Combustible liquids are those with flash points at or above:
 4. 140 degrees
44. An employer who receives a citation after a CAL/OSHA inspection has a right to appeal if:
 3. He/she appeals within 15 working days after receipt of notification by mail

45. The steps to correcting employee exposure to hazards in order of priority are:
 3. Engineering and correct hazards; administrative procedures; and protective equipment for employees
46. The industrial health and safety laws in California are enforced by:
 4. State OSHA
47. When calculating accident frequency and severity rates, which of the following must be considered:
 1. Injury
48. The TLV (Threshold Limit Value) for noise is expressed as:
 2. 90 db
49. California Safety and Health standards are:
 1. At least as strict as the federal standards
50. Industrial Hygiene is primarily concerned with:
 4. The control of environmental health hazards that arise out of employment

PART III

CONVERSION TABLES OF RAW
SCORES TO PERCENTILE RANKS

PERCENTILE REPORT FOR SUB SCORE A

<u>Scores</u>	<u>Frequency</u>	<u>Percentiles</u>
27	3	99.7
26	4	99.2
25	9	98.1
24	33	94.6
23	45	88.1
22	61	79.2
21	69	68.4
20	78	56.1
19	64	44.2
18	53	34.5
17	39	26.8
16	37	20.5
15	32	14.7
14	22	10.2
13	10	7.5
12	12	5.7
11	13	3.6
10	7	1.9
9	1	1.3
8	1	1.1
7	3	0.8
5	1	0.4
4	2	0.2

PERCENTILE REPORT FOR SUB SCORE B

<u>Scores</u>	<u>Frequency</u>	<u>Percentiles</u>
28	1	99.9
26	1	99.7
23	2	99.5
22	2	99.2
21	8	98.3
20	22	95.8
19	35	91.1
18	66	82.6
17	74	71.0
16	77	58.3
15	54	47.4
14	74	36.7
13	53	26.1
12	49	17.6
11	29	11.1
10	21	6.9
9	10	4.3
8	9	2.8
7	2	1.8
6	7	1.1
5	2	0.3
3	1	0.1

PERCENTILE REPORT FOR SUB SCORE C

<u>Scores</u>	<u>Frequency</u>	<u>Percentiles</u>
33	1	99.9
32	2	99.7
31	9	98.7
30	16	96.7
29	25	93.2
28	34	88.3
27	45	81.7
26	51	73.7
25	54	64.9
24	66	54.9
23	43	45.8
22	47	38.3
21	38	31.2
20	33	25.3
19	23	20.6
18	26	16.5
17	22	12.5
16	19	9.1
15	16	6.2
14	6	4.3
13	2	3.7
12	7	2.9
11	7	1.8
10	2	1.0
9	3	0.6
8	1	0.3
7	1	0.1

PERCENTILE REPORT FOR SUB SCORE D

<u>Scores</u>	<u>Frequency</u>	<u>Percentiles</u>
13	1	99.9
12	2	99.7
11	36	96.5
10	87	86.2
9	121	68.9
8	110	49.6
7	116	30.7
6	56	16.4
5	35	8.8
4	15	4.6
3	13	2.3
2	4	0.8
1	1	0.4
0	2	0.2

PERCENTILE REPORT FOR SUB SCORE E

<u>Scores</u>	<u>Frequency</u>	<u>Percentiles</u>
12	1	99.9
11	1	99.7
10	7	99.1
9	17	97.1
8	35	92.7
7	68	84.1
6	119	68.5
5	123	48.3
4	120	28.0
3	56	13.4
2	32	6.0
1	12	2.3
0	8	0.7

PERCENTILE REPORT FOR SUB SCORE F

<u>Scores</u>	<u>Frequency</u>	<u>Percentiles</u>
15	1	99.9
14	6	99.3
13	35	95.9
12	74	86.8
11	102	72.1
10	90	56.1
9	80	41.9
8	63	30.0
7	61	19.6
6	33	11.8
5	19	7.4
4	15	4.6
3	8	2.7
2	2	1.8
1	6	1.2
0	4	0.3

PERCENTILE REPORT FOR SUB SCORE G

<u>Scores</u>	<u>Frequency</u>	<u>Percentiles</u>
10	2	99.8
9	10	98.8
8	32	95.3
7	63	87.4
6	95	74.2
5	115	56.7
4	124	36.7
3	88	19.0
2	44	8.0
1	20	2.7
0	6	0.5

PART IV

REPORT ON GROUP SCORES
BY IDENTIFICATION NUMBER

MEAN AND PERCENTILE REPORT FOR
INDIVIDUAL GROUP NUMBER 01
BY SUB AND TOTAL SCORES

<u>Type</u>	<u>Mean</u>	<u>Percentile</u>
Sub Score A	17.9	33
Sub Score B	14.9	46
Sub Score C	23.0	46
Sub Score D	7.3	36
Sub Score E	5.1	50
Sub Score F	8.0	30
Sub Score G	4.3	42
TOTAL SCORE	80.4	37

MEAN AND PERCENTILE REPORT FOR
INDIVIDUAL GROUP NUMBER 02
BY SUB AND TOTAL SCORES

<u>Type</u>	<u>Mean</u>	<u>Percentile</u>
Sub Score A	18.5	39
Sub Score B	14.3	40
Sub Score C	22.8	44
Sub Score D	8.5	59
Sub Score E	5.9	65
Sub Score F	9.2	45
Sub Score G	5.1	59
TOTAL SCORE	84.2	47

MEAN AND PERCENTILE REPORT FOR
INDIVIDUAL GROUP NUMBER 03
BY SUB AND TOTAL SCORES

<u>Type</u>	<u>Mean</u>	<u>Percentile</u>
Sub Score A	17.4	30
Sub Score B	12.8	25
Sub Score C	19.9	25
Sub Score D	7.9	47
Sub Score E	4.9	47
Sub Score F	8.3	34
Sub Score G	4.5	46
TOTAL SCORE	75.7	25

MEAN AND PERCENTILE REPORT FOR
INDIVIDUAL GROUP NUMBER 04
BY SUB AND TOTAL SCORES

<u>Type</u>	<u>Mean</u>	<u>Percentile</u>
Sub Score A	20.5	63
Sub Score B	16.3	62
Sub Score C	23.0	46
Sub Score D	8.1	52
Sub Score E	4.9	47
Sub Score F	9.5	48
Sub Score G	5.0	57
TOTAL SCORE	87.3	57

MEAN AND PERCENTILE REPORT FOR
INDIVIDUAL GROUP NUMBER 05
BY SUB AND TOTAL SCORES

<u>Type</u>	<u>Mean</u>	<u>Percentile</u>
Sub Score A	21.2	70
Sub Score B	16.9	70
Sub Score C	25.1	66
Sub Score D	7.9	47
Sub Score E	5.5	59
Sub Score F	10.6	65
Sub Score G	5.0	57
TOTAL SCORE	92.2	70

MEAN AND PERCENTILE REPORT FOR
INDIVIDUAL GROUP NUMBER 06
BY SUB AND TOTAL SCORES

<u>Type</u>	<u>Mean</u>	<u>Percentile</u>
Sub Score A	19.3	48
Sub Score B	14.4	41
Sub Score C	22.2	40
Sub Score D	7.5	40
Sub Score E	5.1	50
Sub Score F	9.4	47
Sub Score G	4.3	42
TOTAL SCORE	82.1	41

MEAN AND PERCENTILE REPORT FOR
INDIVIDUAL GROUP NUMBER 07
BY SUB AND TOTAL SCORES

<u>Type</u>	<u>Mean</u>	<u>Percentile</u>
Sub Score A	18.3	37
Sub Score B	14.6	43
Sub Score C	21.3	33
Sub Score D	7.5	40
Sub Score E	5.5	58
Sub Score F	9.0	42
Sub Score G	4.6	49
TOTAL SCORE	80.8	38

MEAN AND PERCENTILE REPORT FOR
INDIVIDUAL GROUP NUMBER 08
BY SUB AND TOTAL SCORES

<u>Type</u>	<u>Mean</u>	<u>Percentile</u>
Sub Score A	19.7	52
Sub Score B	14.3	40
Sub Score C	23.6	51
Sub Score D	9.0	68
Sub Score E	5.0	49
Sub Score F	10.5	64
Sub Score G	5.1	58
TOTAL SCORE	87.2	56

MEAN AND PERCENTILE REPORT FOR
INDIVIDUAL GROUP NUMBER 09
BY SUB AND TOTAL SCORES

<u>Type</u>	<u>Mean</u>	<u>Percentile</u>
Sub Score A	17.9	33
Sub Score B	13.9	35
Sub Score C	20.6	29
Sub Score D	8.6	61
Sub Score E	5.2	53
Sub Score F	8.7	38
Sub Score G	5.1	59
TOTAL SCORE	80.0	36

MEAN AND PERCENTILE REPORT FOR
INDIVIDUAL GROUP NUMBER 10
BY SUB AND TOTAL SCORES

<u>Type</u>	<u>Mean</u>	<u>Percentile</u>
Sub Score A	17.7	32
Sub Score B	14.1	38
Sub Score C	20.6	29
Sub Score D	7.5	41
Sub Score E	3.8	25
Sub Score F	8.8	40
Sub Score G	4.2	40
TOTAL SCORE	76.7	27

MEAN AND PERCENTILE REPORT FOR
INDIVIDUAL GROUP NUMBER 11
BY SUB AND TOTAL SCORES

<u>Type</u>	<u>Mean</u>	<u>Percentile</u>
Sub Score A	16.8	26
Sub Score B	13.2	28
Sub Score C	20.6	29
Sub Score D	6.3	21
Sub Score E	4.3	35
Sub Score F	7.2	21
Sub Score G	3.7	31
TOTAL SCORE	72.1	19

MEAN AND PERCENTILE REPORT FOR
INDIVIDUAL GROUP NUMBER 12
BY SUB AND TOTAL SCORES

<u>Type</u>	<u>Mean</u>	<u>Percentile</u>
Sub Score A	18.6	40
Sub Score B	15.9	57
Sub Score C	24.5	60
Sub Score D	8.4	56
Sub Score E	5.3	54
Sub Score F	9.4	48
Sub Score G	4.3	42
TOTAL SCORE	86.3	54

MEAN AND PERCENTILE REPORT FOR
INDIVIDUAL GROUP NUMBER 13
BY SUB AND TOTAL SCORES

<u>Type</u>	<u>Mean</u>	<u>Percentile</u>
Sub Score A	18.7	41
Sub Score B	16.0	58
Sub Score C	24.5	59
Sub Score D	8.7	62
Sub Score E	5.9	66
Sub Score F	9.2	45
Sub Score G	4.6	48
TOTAL SCORE	87.5	57

MEAN AND PERCENTILE REPORT FOR
INDIVIDUAL GROUP NUMBER 14
BY SUB AND TOTAL SCORES

<u>Type</u>	<u>Mean</u>	<u>Percentile</u>
Sub Score A	20.9	67
Sub Score B	16.9	70
Sub Score C	24.7	62
Sub Score D	8.3	56
Sub Score E	5.4	57
Sub Score F	10.1	58
Sub Score G	5.5	65
TOTAL SCORE	91.9	69

MEAN AND PERCENTILE REPORT FOR
INDIVIDUAL GROUP NUMBER 15
BY SUB AND TOTAL SCORES

<u>Type</u>	<u>Mean</u>	<u>Percentile</u>
Sub Score A	20.7	65
Sub Score B	15.3	51
Sub Score C	24.7	62
Sub Score D	7.7	45
Sub Score E	4.9	47
Sub Score F	9.5	49
Sub Score G	5.0	56
TOTAL SCORE	87.9	58

MEAN AND PERCENTILE REPORT FOR
INDIVIDUAL GROUP NUMBER 16
BY SUB AND TOTAL SCORES

<u>Type</u>	<u>Mean</u>	<u>Percentile</u>
Sub Score A	19.7	52
Sub Score B	15.8	57
Sub Score C	23.7	53
Sub Score D	7.8	47
Sub Score E	5.2	51
Sub Score F	9.1	43
Sub Score G	4.6	48
TOTAL SCORE	85.9	53

MEAN AND PERCENTILE REPORT FOR
INDIVIDUAL GROUP NUMBER 17
BY SUB AND TOTAL SCORES

<u>Type</u>	<u>Mean</u>	<u>Percentile</u>
Sub Score A	20.8	65
Sub Score B	16.3	62
Sub Score C	25.0	65
Sub Score D	8.3	56
Sub Score E	5.1	50
Sub Score F	9.5	49
Sub Score G	5.3	62
TOTAL SCORE	90.2	65

MEAN AND PERCENTILE REPORT FOR
INDIVIDUAL GROUP NUMBER 18
BY SUB AND TOTAL SCORES

<u>Type</u>	<u>Mean</u>	<u>Percentile</u>
Sub Score A	16.7	25
Sub Score B	13.4	30
Sub Score C	20.0	25
Sub Score D	7.2	34
Sub Score E	4.1	30
Sub Score F	8.4	34
Sub Score G	3.7	32
TOTAL SCORE	73.4	22

MEAN AND PERCENTILE REPORT FOR
INDIVIDUAL GROUP NUMBER 19
BY SUB AND TOTAL SCORES

<u>Type</u>	<u>Mean</u>	<u>Percentile</u>
Sub Score A	17.6	32
Sub Score B	15.4	52
Sub Score C	21.9	37
Sub Score D	7.2	35
Sub Score E	4.8	44
Sub Score F	8.6	37
Sub Score G	4.7	50
TOTAL SCORE	80.2	37

MEAN AND PERCENTILE REPORT FOR
INDIVIDUAL GROUP NUMBER 20
BY SUB AND TOTAL SCORES

<u>Type</u>	<u>Mean</u>	<u>Percentile</u>
Sub Score A	20.1	57
Sub Score B	15.6	54
Sub Score C	22.1	39
Sub Score D	8.2	54
Sub Score E	5.5	58
Sub Score F	10.2	60
Sub Score G	5.6	68
TOTAL SCORE	87.5	57

MEAN AND PERCENTILE REPORT FOR
INDIVIDUAL GROUP NUMBER 21
BY SUB AND TOTAL SCORES

<u>Type</u>	<u>Mean</u>	<u>Percentile</u>
Sub Score A	18.4	39
Sub Score B	14.7	45
Sub Score C	23.1	46
Sub Score D	7.0	31
Sub Score E	5.4	57
Sub Score F	9.5	49
Sub Score G	4.5	46
TOTAL SCORE	82.6	42

PERCENTILE REPORT TOTAL SCORES

<u>Scores</u>	<u>Frequency</u>	<u>Percentiles</u>
115	1	99.9
111	1	99.7
110	1	99.6
109	1	99.4
108	4	99.0
107	1	98.6
106	6	98.0
105	10	96.7
104	11	94.9
103	9	93.2
102	11	91.6
101	8	90.0
100	7	88.7
99	21	86.4
98	12	83.6
97	15	81.4
96	10	79.3
95	20	76.8
94	13	74.0
93	15	71.7
92	15	69.2
91	16	66.6
90	15	64.0
89	14	61.6
88	24	58.4
87	11	55.5
86	17	53.2
85	25	49.7
84	18	46.1
83	16	43.2
82	11	41.0
81	15	38.8
80	20	35.9
79	19	32.6
78	10	30.2
77	17	28.0
76	12	25.5
75	6	24.0
74	10	22.7
73	13	20.8
72	9	18.9
71	8	17.5
70	6	16.4
69	9	15.1
68	9	13.6
67	4	12.5
66	5	11.8
65	6	10.9
64	4	10.0
63	7	9.1
62	3	8.3
61	2	7.8
60	2	7.5
59	2	7.2
58	4	6.7
57	3	6.1
56	3	5.6
55	4	5.0
54	2	4.5
53	2	4.2
52	1	3.9
51	1	3.8
50	1	3.6
49	4	3.2
48	3	2.6
47	5	1.9
46	1	1.4
45	1	1.3
44	1	1.1
43	1	0.9
41	1	0.8
40	1	0.6
37	1	0.4
35	1	0.3
34	1	0.1

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