The Pre-Supervisory Training Program (Continental Can Company) at Plant #51 (Stockyards): A Case Study

James Francis Murphy

Loyola University Chicago

Recommended Citation
Murphy, James Francis, "The Pre-Supervisory Training Program (Continental Can Company) at Plant #51 (Stockyards): A Case Study" (1958). Master's Theses. Paper 1660.
http://ecommons.luc.edu/luc_theses/1660

This Thesis is brought to you for free and open access by the Theses and Dissertations at Loyola eCommons. It has been accepted for inclusion in Master's Theses by an authorized administrator of Loyola eCommons. For more information, please contact ecommons@luc.edu.

This work is licensed under a Creative Commons Attribution-Noncommercial-No Derivative Works 3.0 License.

Copyright © 1958 James Francis Murphy
THE PRE-SUPERVISORY TRAINING PROGRAM (CONTINENTAL CAN COMPANY) AT PLANT #51 (STOCKYARDS):
A CASE STUDY

by

James Francis Murphy

A Thesis Submitted to the Faculty of the Graduate School of Loyola University in Partial Fulfillment of the Requirements for the Degree of Master of Social and Industrial Relations

January

1958
LIFE

James Francis Murphy was born in Chicago, Illinois, October 26, 1928.

He was graduated from St. Rita High School, Chicago, Illinois, June, 1947, and from the University of Illinois, June, 1951 with the degree of Bachelor of Arts.

The author began his graduate studies at Loyola University's Institute of Social and Industrial Relations in September, 1955.

The writer started employment with Continental Can Company in July, 1956 as a two year Supervisory Trainee. Since that time, he has held the position of Acting Plant Instructor at Plant #51 (Stockyards) and was active in the administration and execution of the Plant's Pre-Supervisory Training Program.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. GENERAL INFORMATION</td>
<td></td>
</tr>
<tr>
<td>A. Purpose of the Program</td>
<td>1</td>
</tr>
<tr>
<td>B. Promotion &amp; Publicity Given the Program</td>
<td>2</td>
</tr>
<tr>
<td>C. Meetings</td>
<td>3</td>
</tr>
<tr>
<td>D. Selection of Instructors</td>
<td>3</td>
</tr>
<tr>
<td>E. Leader's Guide for Instructors Usage</td>
<td>3</td>
</tr>
<tr>
<td>F. Use of Outlines and Minutes for Trainees</td>
<td>4</td>
</tr>
<tr>
<td>G. Use of Examinations</td>
<td>4</td>
</tr>
<tr>
<td>H. Observation of Trainees by Company Officials</td>
<td>4</td>
</tr>
<tr>
<td>I. Collateral Readings</td>
<td>5</td>
</tr>
<tr>
<td>II. SELECTION OF CANDIDATES FOR PROGRAM</td>
<td></td>
</tr>
<tr>
<td>A. General Provisions</td>
<td>6</td>
</tr>
<tr>
<td>B. Actual Selection of Applicants</td>
<td>8</td>
</tr>
<tr>
<td>III. GENERAL CONTENTS OF THE PROGRAM</td>
<td></td>
</tr>
<tr>
<td>A. General Introduction</td>
<td>11</td>
</tr>
<tr>
<td>B. The Basic Program Units</td>
<td>12</td>
</tr>
<tr>
<td>C. Examinations Given &amp; Management's Observations</td>
<td>13</td>
</tr>
<tr>
<td>IV. AN ANALYSIS OF THE SELECTION TESTS USED IN EVALUATING EACH APPLICANT'S POTENTIALS FOR SUPERVISION</td>
<td></td>
</tr>
<tr>
<td>A. On the Validity of the Tests</td>
<td>15</td>
</tr>
<tr>
<td>B. Management Observation - A Valid Criterion?</td>
<td>26</td>
</tr>
<tr>
<td>C. Examination Grades - Valid Criterion?</td>
<td>26</td>
</tr>
<tr>
<td>V. RESULTS OF THE PROGRAM</td>
<td></td>
</tr>
<tr>
<td>A. The Trainees Opinions of the Program</td>
<td>39</td>
</tr>
<tr>
<td>B. An Analysis of the Trainees Evaluations</td>
<td>39</td>
</tr>
<tr>
<td>1. Exhibit A</td>
<td>44</td>
</tr>
<tr>
<td>2. Exhibit B</td>
<td>46</td>
</tr>
<tr>
<td>C. Management's Appraisal of Trainees</td>
<td>50</td>
</tr>
</tbody>
</table>
VI. GENERAL CONCLUSIONS

A. Results of the Program as Measured by the Text
   "How Supervise?" ........................................ 52
B. Personal Recommendations by the Writer ................ 54
   1. Use of Selection Tests ................................ 54
   2. The Bennett Mechanical Comprehension Test ......... 55
   3. The Wonderlic Personnel Test ........................ 55
   4. The "How Supervise?" Test ............................ 55
   5. Use of Supervisory Recommendations as a Factor in Determining the Acceptance or Rejection of an Applicant ........................................ 58
   6. Selection of Applicants ................................ 59
   7. Location, Time, and Sequence of Program .......... 60
   8. Leader's Guide ........................................ 60
   9. Outside Readings ...................................... 61
   10. Use of Text for Trainees ............................. 61
C. Revision of the Program by the Head Office Training Department ..................................... 61
D. Significant Differences Between the Revised Program and the Pilot Session at Plant #51 ........ 62
E. Personal Comments by the Writer on the Contents of the Revised Program ............................. 63
   1. On the Reorganisation of the Units ................ 63
   2. Human Relations ....................................... 63
   3. Our Company ........................................... 66
   4. Management Principles & Functions ................ 66
   5. The Supervisor's Job ................................... 66
   6. Using Staff Services ................................... 67
   7. Company Policies & Rules ............................. 68
   8. Employee Benefit Plans ................................ 68
   9. Safety & Health Services .............................. 68
   10. Labor Relations Philosophy ......................... 69
   11. Controlling Quality ................................... 70
   12. Profit Planning ....................................... 70
   13. Production, Inventory & Maintenance .............. 70
   14. Training & Job Instruction ........................... 71
   15. Handling Complaints ................................... 72
   16. Maintaining Discipline ................................ 72
   17. Problem Cases ......................................... 73
   18. Personal Planning ..................................... 73
   19. On the Topics in General ............................. 73
   20. On the General Length of the Program ............. 75
   21. Follow-up On Program .................................. 75
APPENDIX

I  BIBLIOGRAPHY SUBMITTED TO THE TRAINEES .................. 79

II  OUTLINE MATERIALS SUBMITTED TO THE TRAINEES .............. 83

III CONTENTS, SEQUENCES AND TIMING OF THE FINAL HEAD
OFFICE APPROVED PRE-SUPERVISORY TRAINING PROGRAM ....... 149
LIST OF TABLES

Table                                                                 Page

I. FACTORS USED IN SELECTING APPLICANTS ...................................... 9
II. GRADES TRAINEES RECEIVED ON THE EXAMINATIONS .......................... 14
III. CORRELATION BETWEEN THE WONDERLIC TEST SCORES AND THE AVERAGE GRADE OF THE THREE OBJECTIVE EXAMINATIONS .......................... 28
IV. CORRELATION BETWEEN THE WONDERLIC TEST SCORES AND THE GRADES OF THE FIRST ESSAY EXAMINATION ........................................ 29
V. CORRELATION BETWEEN THE WONDERLIC TEST SCORES AND THE GRADES OF THE SECOND ESSAY EXAMINATION ........................................ 30
VI. CORRELATION BETWEEN THE WONDERLIC TEST SCORES AND THE AVERAGE COURSE GRADE .......................................................... 31
VII. CORRELATION BETWEEN THE "HOW SUPERVISE?" TEST AND THE AVERAGE GRADE OF THE THREE OBJECTIVE EXAMINATIONS .......................... 34
VIII. CORRELATION BETWEEN THE "HOW SUPERVISE?" TEST AND THE GRADES OF THE FIRST ESSAY EXAMINATION ........................................ 35
IX. CORRELATION BETWEEN THE "HOW SUPERVISE?" TEST AND THE GRADES OF THE SECOND ESSAY EXAMINATION ........................................ 36
X. CORRELATION BETWEEN THE "HOW SUPERVISE?" TEST AND THE AVERAGE COURSE GRADE .......................................................... 37
XI. CORRELATION BETWEEN THE WONDERLIC AND THE "HOW SUPERVISE?" TESTS .......................................................... 38
XII. A COMPARISON OF THE "HOW SUPERVISE?" TEST SCORES BEFORE AND AFTER A PRE-SUPERVISORY TRAINING PROGRAM AT PLANT #51'S PILOT SESSION .......................... 53
**LIST OF FIGURES**

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>A COMPARISON OF EXAMINATION GRADES, WONDERLIC, &quot;HOW SUPERVISE?&quot;, AND THE BENNETT TEST SCORES BETWEEN FOUR OUTSTANDING AND NINE OTHER TRAINEES</td>
<td>17</td>
</tr>
<tr>
<td>2.</td>
<td>A COMPARISON OF THE COMPOSITE SCORE OF SELECTION TESTS WITH CLASSROOM GRADES</td>
<td>18</td>
</tr>
<tr>
<td>3.</td>
<td>PROGRAM GRADES OF DIVISION OFFICE RECOMMENDATIONS</td>
<td>20</td>
</tr>
<tr>
<td>4.</td>
<td>PROGRAM GRADES OF GROUPS ACCORDING TO SELECTION TEST SCORES</td>
<td>21</td>
</tr>
<tr>
<td>5.</td>
<td>PROGRAM GRADES OF GROUPS ACCORDING TO THE WONDERLIC TEST SCORES</td>
<td>22</td>
</tr>
<tr>
<td>6.</td>
<td>PROGRAM GRADES OF GROUPS ACCORDING TO THE &quot;HOW SUPERVISE?&quot; TEST</td>
<td>23</td>
</tr>
<tr>
<td>7.</td>
<td>PROGRAM GRADES OF GROUPS ACCORDING TO THE BENNETT MECHANICAL COMPREHENSION TEST SCORES</td>
<td>24</td>
</tr>
<tr>
<td>8.</td>
<td>A COMPARISON OF THE EXAMINATION GRADES, WONDERLIC, AND &quot;HOW SUPERVISE?&quot; TEST SCORES BASED ON THE TRAINEE'S FORMALIZED EDUCATION</td>
<td>25</td>
</tr>
</tbody>
</table>
CHAPTER I

GENERAL INFORMATION

A. PURPOSE OF THE PROGRAM

Continental Can Company, Inc. of New York (hereinafter called the Company) has increased its sales volume from 174 million dollars in 1944 to over one billion dollars in 1957\(^1\) due to the great expansion and diversification program of the Company.

Naturally, this rapid growth has created many new positions and opportunities for the Company's employees. In endeavoring to promote from within its own ranks, the Company has developed its Pre-Supervisory Training Program to create a group of qualified men available for vacancies in the foreman and assistant foreman ranks. Appointing a man from the hourly or non-exempt salary roll requires proper training to assist him in achieving success in his new assignment. The Company feels that employees who are capable and are willing to accept responsibility and who can use authority wisely, should be selected and trained before they can qualify for any supervisory positions. In putting the Pre-Supervisory Training Program into effect, the Company has selected Plant #51 (Stock Yards) for one of its three pilot sessions to learn the best method of selecting candidates; the subject matter, including the order of its presentation and the amount

---

of stress to be placed on each topic, and the techniques of presentation before its use in any of the Company's 139 plants through the United States, Canada and Cuba.

The writer prepared outlines of the subject materials for distribution to the trainees, wrote the minutes of the program, and gave several lectures in the program at Plant #51. This thesis was written to report the results of the program through its development stage at Plant #51 only and does not cover the other two pilot sessions.

The opinions of this thesis are those of the writer based on his personal observation of the pilot session at Plant #51 and should in no way reflect the opinions of the Training Department and the Company.

B. PROMOTION AND PUBLICITY GIVEN THE PROGRAM

The promotion and publicity given the program were issued through the local plant publication. The promotion article as it appeared in the October-November 1956 issue explained the purpose and overall length of the program, the time and duration that the classes were to be held and the general standards required for an applicant's acceptance into the program.

In the February-March 1957 issue the center-spread, covering two pages, was devoted to publicizing the program. A picture of the class during one of its sessions was shown.

Finally, in the July-August 1957 issue, an article appeared congratulating each trainee for his successful completion of the program. Each trainee's name and department was listed.
C. MEETINGS

The meetings were held each Wednesday from 3:45 P.M. to 5:45 P.M. Arrangements were made so that all the time expended by the men would be their own personal time, not Company time, to reduce costs and to make it necessary for the applicants to have the drive and motivation to improve their status with the Company, to the extent that they were willing to take their leisure time to do it.

A comfortable, quiet conference room outside of the plant was selected as the meeting place in order to avoid any possible interruptions. Coffee was made available and the trainees were allowed to smoke during the classes.

D. SELECTION OF INSTRUCTORS

It was decided in planning the program that the Plant Instructor would administer the program and present the portions of the program which were not logically the special field of some member of the Plant Staff; i.e., "Profit Planning" session would be presented by the Plant Accountant and the Industrial Engineer, "Quality Control" by the Plant Quality Control Supervisor, "Employee Benefit Plans" by the Personnel Supervisor, "Safety" by the Secretary of the Plant Safety Committee, and so forth.

E. LEADERS GUIDE FOR INSTRUCTORS USAGE

Each instructor was given a "Leader's Guide" which was developed by the Company's Head Office Training Department. It was specifically intended that the instructor use it only as a guide and not to be read or memorized and presented to trainees as a series of lectures. The guide presented the factual material in a logical sequence so that the instructor could give it
to the trainees in such a way that they could absorb the subject material more readily. It was expected that each instructor would draw from his actual experience those situations which would make his presentation more interesting and more realistic. The sources of the materials used to develop the Leader's Guide are contained in Appendix I.

F. USE OF OUTLINES AND MINUTES FOR TRAINEES

It was strongly recommended to the trainees that they take notes as a basis for review and an aid in learning the material.

Since there was no actual text for the students to study, they were given a brief outline of the key points in the Leader's Guide one week prior to the discussion in order that each might prepare himself for the class.

Approximately halfway through the Program each trainee was given a copy of the minutes of each meeting. This was done not to reduce the taking of notes by the trainees, but to assist those who found it difficult to do so, that they might not miss any important material brought out in the lecture and the ensuing discussion.

G. USE OF EXAMINATIONS

In order to evaluate how much of the materials each of the trainees was retaining, periodic examinations were given, varying from a simple ten question objective test to a comprehensive fifteen question essay examination.

H. OBSERVATION OF TRAINEES BY COMPANY OFFICIALS

Various supervisors of the plant and of the Central Division Office attended the sessions of the program to observe how the trainees were
reacting to the class, through their participation in the many discussions which arose. The purpose of this was to see if the trainees could apply the principles being taught to problem areas and to find out just what trainees in the group were the most outstanding students.

The various observers were the Division Supervisor of Organization and Development, Division Supervisor of Training, Plant Manager, Assistant Plant Manager, Plant Instructor, and various staff heads and line supervisors. These members made their comments on the session or sessions they attended to the Plant Instructor, who then reported the findings to the Committee on Training.

I. COLIATORAL READINGS

Each trainee was given a bibliography (Appendix I) which would enable him to supplement the outlines given him and the actual classroom materials. The various Company publications contained in the bibliography were available to each of the trainees at the plant's Industrial Relations Department. If a trainee was to inquire about other sources contained in the bibliography, the Plant Instructor was to assist the man in obtaining any reference book or periodical he desired. This was to be accomplished through the Plant library, or by advising the trainee of any outside libraries or agencies where the source material could be obtained.
CHAPTER II

SELECTION OF CANDIDATES FOR THE PROGRAM

A. GENERAL PROVISIONS

It was agreed that candidates be selected so that those trained would be the best supervisory material for the Company while at the same time boosting rather than adversely affecting the morale of all the workers. In order to accomplish this, every effort was made to devise a fair selection procedure. The one finally set up was as follows:

1. After the announcement of the opportunity to volunteer for the program was published in the plant magazine, all supervisors were directed to discuss the program with their personnel and to recommend participation to those men who, in their opinion, had the potential for supervision.

2. A Plant Advisory Committee on Training (hereinafter called the Committee) composed of various staff heads and line supervisors, under the chairmanship of the Plant Manager, reviewed the record of each of the twenty-two applicants, provided by his immediate supervisor and the Personnel Supervisor, that gave his age, education, health, experience, promotions, and length of service.

3. Each applicant was given the Wonderlic Personnel Test, the Bennett Mechanical Comprehension Test, and File & Remmer's
"How Supervise?" Test. The Wonderlic is one of the most widely used group tests of general intelligence. It was designed especially for industrial use, is short (twelve minute time limit), virtually self-administering, and easy to score. The Bennett test is designed to measure the capacity of types of physical and mechanical relationships. "How Supervise?" is designed to indicate a man's knowledge and insight into human relations in industry. The results of the tests were not used as the basis for accepting or rejecting an applicant, but rather to give the Committee further insight into the applicants' potentialities.

4. Rejection or acceptance of an applicant was decided by the Committee and not by any one individual. Selection standards were based on the fact that the men to be chosen were to have the potentialities for advancement beyond the first supervisory level. The program is aimed at long range corporate needs and not just a short range need for replacements among the first line supervisors.

5. Thirteen candidates were notified of their acceptance into the program by writing. A pre-program meeting of the candidates was

---


3 George K. Bennett, Test of Mechanical Comprehension Manual (New York), 2.

held to tell them the date, time, and place of the session and to
give them information about the introductory unit.

6. The nine rejected candidates were notified in writing and were then
interviewed by their immediate supervisors who told them why they
were not accepted to help the candidates prepare themselves for
acceptance to any future program. Care was taken in these inter­
views to overcome any demoralizing effects the rejection might
have on the applicant.

B. ACTUAL SELECTION OF APPLICANTS

All but one of the thirteen applicants who were accepted had been
recommended for the program by their immediate supervisor. Seven of the
nine rejected applicants were not recommended, or were recommended with
qualifications, for entrance into the program by their immediate supervisor.
One of the latter applicants was one of the six recommended by the Central
Division Office, as a result of the selection tests. The other five
applicants recommended by it were chosen for the program. Equal weight was
given each test by the Division office in making their recommendations.
Two who were recommended by their immediate supervisors were rejected by
the Committee as a result of irregular personality factors, which the
Committee thought were substantial enough to warrant rejection.

All of the trainees had two or more years of high school education;
ten of them had graduated and three had one to four years of college.
Table I shows a breakdown of the factors used in selecting the applicants.
TABLE I

FACTORS USED IN SELECTING APPLICANTS

<table>
<thead>
<tr>
<th>App.</th>
<th>Years Education</th>
<th>Wonderlic Percentile Score</th>
<th>Bennett Percentile Score</th>
<th>How Supervise Percentile Score</th>
<th>Central Division Recomm.</th>
<th>Immediate Supervisors Recomm.</th>
<th>Selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>16</td>
<td>98.8</td>
<td>16</td>
<td>93</td>
<td>Yes</td>
<td>No</td>
<td>X</td>
</tr>
<tr>
<td>B</td>
<td>12</td>
<td>89.4</td>
<td>31</td>
<td>65</td>
<td>Yes</td>
<td>Yes</td>
<td>X</td>
</tr>
<tr>
<td>C</td>
<td>14</td>
<td>83.7</td>
<td>94</td>
<td>73</td>
<td>Yes</td>
<td>Yes</td>
<td>X</td>
</tr>
<tr>
<td>D</td>
<td>12</td>
<td>83.7</td>
<td>94</td>
<td>96</td>
<td>Yes</td>
<td>Yes</td>
<td>X</td>
</tr>
<tr>
<td>E</td>
<td>12</td>
<td>83.7</td>
<td>97</td>
<td>53</td>
<td>Yes</td>
<td>Yes</td>
<td>X</td>
</tr>
<tr>
<td>F</td>
<td>12</td>
<td>76.2</td>
<td>45</td>
<td>9</td>
<td>No</td>
<td>No</td>
<td>X</td>
</tr>
<tr>
<td>G</td>
<td>11</td>
<td>67.3</td>
<td>3</td>
<td>45</td>
<td>No</td>
<td>Yes</td>
<td>X</td>
</tr>
<tr>
<td>H</td>
<td>12</td>
<td>57.7</td>
<td>15</td>
<td>10</td>
<td>No</td>
<td>Yes</td>
<td>X</td>
</tr>
<tr>
<td>I</td>
<td>12</td>
<td>48.4</td>
<td>65</td>
<td>87</td>
<td>Yes</td>
<td>Yes</td>
<td>X</td>
</tr>
<tr>
<td>J</td>
<td>12</td>
<td>48.4</td>
<td>32</td>
<td>53</td>
<td>Yes</td>
<td>Yes</td>
<td>X</td>
</tr>
<tr>
<td>K</td>
<td>12</td>
<td>39.9</td>
<td>65</td>
<td>25</td>
<td>No</td>
<td>No</td>
<td>X</td>
</tr>
<tr>
<td>L</td>
<td>12</td>
<td>39.9</td>
<td>65</td>
<td>29</td>
<td>No</td>
<td>No</td>
<td>X</td>
</tr>
<tr>
<td>M</td>
<td>12</td>
<td>31.7</td>
<td>3</td>
<td>45</td>
<td>No</td>
<td>Yes</td>
<td>X</td>
</tr>
<tr>
<td>N</td>
<td>12</td>
<td>31.7</td>
<td>70</td>
<td>65</td>
<td>No</td>
<td>Yes</td>
<td>X</td>
</tr>
<tr>
<td>O</td>
<td>12</td>
<td>24.4</td>
<td>70</td>
<td>53</td>
<td>No</td>
<td>Yes</td>
<td>X</td>
</tr>
<tr>
<td>P</td>
<td>11</td>
<td>24.4</td>
<td>30</td>
<td>75</td>
<td>No</td>
<td>No</td>
<td>X</td>
</tr>
<tr>
<td>Q</td>
<td>10</td>
<td>18.4</td>
<td>29</td>
<td>73</td>
<td>No</td>
<td>Yes</td>
<td>X</td>
</tr>
<tr>
<td>R</td>
<td>12</td>
<td>18.4</td>
<td>65</td>
<td>12</td>
<td>No</td>
<td>Yes</td>
<td>X</td>
</tr>
<tr>
<td>S</td>
<td>11</td>
<td>13.1</td>
<td>2</td>
<td>25</td>
<td>No</td>
<td>No</td>
<td>X</td>
</tr>
<tr>
<td>T</td>
<td>11</td>
<td>9.1</td>
<td>3</td>
<td>23</td>
<td>No</td>
<td>No</td>
<td>X</td>
</tr>
<tr>
<td>U</td>
<td>11</td>
<td>13.1</td>
<td>30</td>
<td>60</td>
<td>No</td>
<td>Yes</td>
<td>X</td>
</tr>
<tr>
<td>V</td>
<td>16</td>
<td>31.7</td>
<td>11</td>
<td>92</td>
<td>No</td>
<td>Yes</td>
<td>X</td>
</tr>
</tbody>
</table>

1 Percentiles used are those based on the results between the ages of 18 and 72 with all educational levels.\(^5\)

---

\(^5\)Wonderlic, p. 6.
Percentiles used are those based on that of candidates for an apprentice training program.

The percentile factors used are based on the level of Assistant Foreman, Foreman and General Foreman.

---

6 Bennett, p. 7.

CHAPTER III

GENERAL CONTENTS OF THE PROGRAM

A. GENERAL INTRODUCTION

At the opening session of the program, a brief welcoming statement was made by each of the following: the Division Supervisor of Organization and Development, the Division Supervisor of Training, the Assistant Plant Manager, and the Plant Personnel Supervisor. A representative of the Head Office Training Department was also present at each session to watch the development and evaluate the progress of the program in order that better methods which would make it more effective, realistic and thorough, might be substituted, if necessary, before the program is installed in the other plants throughout the Company.

It was again stressed to the trainees, as it had been in the promotion article and at the pre-program meeting that completion of the program does not guarantee a man a supervisory position. However, it was emphasized that thoughtful consideration will be given each trainee when vacancies occur in his own plant or in other plants throughout the Division. It was also pointed out that each trainee, upon completion of the program, will be given careful consideration when selections are made for the Company’s formal two year Supervisory Training Program.
B. THE BASIC PROGRAM UNITS

The first unit of the program (Introductory) consisted of five two-hour sessions, using the lecture method. The topics were designed to give a broad general picture of the organization, by covering (1) The History, Organizational Structure, Products and Facilities of the Company, (2) Company Policies on Employment, Wages and Salaries, and the Employee Suggestion Plan, (3) Employee Benefit Plans, (4) Fundamentals of Management, and (5) The Supervisor's Job - A Position Analysis of an Assistant Foreman.

Unit two (Intermediate) was concerned with specific techniques that each supervisor must know if he is to perform his job effectively. Each session opened with a short lecture to establish the framework; the main portion was then devoted to a guided discussion of limited and clearly defined areas within that framework. This gave the trainee the opportunity to participate as a conference member and to learn the other fellow's point of view. Moreover, the ideas developed by the trainees in the discussion were more easily remembered by them. Eight two-hour sessions were devoted to this unit, included on the Supervisor's Role in: (1) Training Employees, (2) Job Instruction Training, (3) Personal Planning, (4) Maintaining Discipline, (5) Safeguarding the Worker, and (6) Controlling Quality.

The third unit (Advanced) consisted of eight two-hour sessions and covered the material by active group discussion, case studies, and role playing. The purpose of the unit was to help the trainees' to identify problems that arise during the supervisor's daily assignments and to solve
them in accordance with Company policy. This unit discussed the Supervisor's Role in: (1) Labor Relations, (2) Handling Grievances, (3) Human Relations, (4) the Supervisor and Profit Planning, and (5) Special Cases.

The outline material submitted to the trainees elaborate on each of the topics in detail (Appendix II).

C. EXAMINATIONS GIVEN AND MANAGEMENT'S OBSERVATIONS

The trainees were given three short objective tests and one essay examination for the material covered in unit one. They were given another essay examination for the material covered in unit two. No examination was given for the material covered in unit three.

The primary purpose of these tests was to stimulate the trainees to study. It was thought by the plant management that the observation of the trainees in the class would be sufficient to determine what trainees were the outstanding students. As would be expected, those trainees chosen as outstanding (as measured by such things as ability to talk, ask good questions, analyze cases, display interest, and proper attitude) by those observing performed equally well on the examinations (Table II).
<table>
<thead>
<tr>
<th>Trainee</th>
<th>First Objective Test</th>
<th>Second Objective Test</th>
<th>Third Objective Test</th>
<th>First Essay Test</th>
<th>Second Essay Test</th>
<th>Course Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>100</td>
<td>80</td>
<td>100</td>
<td>88</td>
<td>81</td>
<td>87</td>
</tr>
<tr>
<td>B *</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>94</td>
<td>85</td>
<td>93</td>
</tr>
<tr>
<td>C *</td>
<td>70</td>
<td>100</td>
<td>100</td>
<td>78</td>
<td>91</td>
<td>87</td>
</tr>
<tr>
<td>D *</td>
<td>100</td>
<td>90</td>
<td>100</td>
<td>87</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>E</td>
<td>100</td>
<td>90</td>
<td>100</td>
<td>68</td>
<td>69</td>
<td>79</td>
</tr>
<tr>
<td>G</td>
<td>100</td>
<td>90</td>
<td>70</td>
<td>89</td>
<td>69</td>
<td>81</td>
</tr>
<tr>
<td>J</td>
<td>80</td>
<td>80</td>
<td>100</td>
<td>91</td>
<td>80</td>
<td>85</td>
</tr>
<tr>
<td>M</td>
<td>-</td>
<td>70</td>
<td>90</td>
<td>68</td>
<td>63</td>
<td>69</td>
</tr>
<tr>
<td>Q</td>
<td>70</td>
<td>90</td>
<td>100</td>
<td>71</td>
<td>85</td>
<td>82</td>
</tr>
<tr>
<td>R</td>
<td>40</td>
<td>80</td>
<td>100</td>
<td>78</td>
<td>86</td>
<td>79</td>
</tr>
<tr>
<td>S</td>
<td>80</td>
<td>90</td>
<td>-</td>
<td>76</td>
<td>75</td>
<td>78</td>
</tr>
<tr>
<td>U</td>
<td>30</td>
<td>80</td>
<td>100</td>
<td>41</td>
<td>67</td>
<td>57</td>
</tr>
<tr>
<td>V *</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>91</td>
<td>98</td>
<td>95</td>
</tr>
</tbody>
</table>

* Trainees considered as outstanding by the various members of management present at the sessions.

** In figuring the average, the first essay examination has been given a weight of twice that of the first three objective tests and the second essay examination was given a weight triple that of the objective tests.
CHAPTER IV

AN ANALYSIS OF THE SELECTION TESTS USED
IN EVALUATING EACH APPLICANT'S POTENTIALS FOR SUPERVISION

A. ON THE VALIDITY OF THE TESTS

The purpose of the selection tests as used at Plant #51 was to assist the Committee in selecting the best potential supervisors. However, because there were only twenty-two applicants, it was not necessary to use the tests as a tool to "weed out" the less desirable applicants.

Nevertheless, had the amount of applicants been excessive (as has recently happened at the Company's Milwaukee plant where over 150 men applied), the question arises as to how valid the tests were to assist the Committee in selecting the most promising applicants.

At Plant #51, two separate criterion were used in determining who were the outstanding trainees of the program. The first and most important criterion was based on the recommendations of the various members of management who were used as observers during the sessions. The second criterion was based on the grades the trainees received on the examinations. The Committee felt that those trainees who exhibited aggressiveness, interest, and intelligence during the class discussions, and who were able to satisfactorily pass certain examinations were more likely to be better
supervisors than those who did not.

While it is true that the size of this group is quite small for a validation study (according to Ghiselli and Brown, a group of twenty to thirty testees is too small for any validation studies), the purpose of this chapter is to see if the selection tests are good approximations in determining what men will be the best students, and consequently the most likely to succeed as future supervisors.

Taking the criterion of management observation, it is interesting to see that the four trainees chosen as outstanding students followed a similar pattern on the examination grades and on each of the selection tests (Figure 1). Three of these four students were recommended by the Central Division Office as a result of their selection test scores.

Figure 2 represents the composite scores of the selection tests (each test being given equal weight). Each bar represents 25 per cent or three of the trainees, with the group having the highest combined test scores at the top and the group having the lowest test scores at the bottom. The shaded portion of each bar represents the percentage of the group that received examination grades below the average of the whole group, whereas the solid section indicates the percentage with grades above the group average. Each of the trainees chosen as outstanding students received examination grades above the class average. In contrast to this, not one trainee in the low 25 per cent bracket equalled or exceeded the average.

---

A - Four outstanding trainees
B - Nine other trainees

* Note: The grades do not include one trainee considered outstanding who, prior to withdrawal from the program, had a 93 per cent average.

**FIGURE 1**

A COMPARISON OF EXAMINATION GRADES, WONDERLIC, "HOW SUPERVISE?", AND THE BENNETT TEST SCORES BETWEEN FOUR OUTSTANDING AND NINE OTHER STUDENTS
Note: One trainee who did not complete the program is not included. He ranked in the best 25% bracket and his grade average at the time of his withdrawal from the program was above the class average.

FIGURE 2

A COMPARISON OF THE COMPOSITE SCORE OF SELECTION TESTS WITH CLASSROOM GRADES
Figure 3 is a comparison of the average examination score of the four trainees that had been recommended by the Central Division Office on the basis of the selection tests with the average score of the remaining eight trainees selected by the Committee. The difference between the two groupings is relatively small, which indicates the possibility that the examinations were not a good criterion for determining what trainees were the most outstanding students.

The average course grade for the trainees, when divided into four degrees of excellence, is compared to the selection tests in Figure 4. It is peculiar that those individuals scoring in the third best grouping had a higher grade average than those in the uppermost group. This again gives cause to question the validity of the examinations as a criterion.

The same question arises as a result of what occurs in Figures 5, 6, and 7, which compare course grades with each of the selection tests separately: the Wonderlic, "How Supervise?", and the Bennett Mechanical Comprehension tests. However, in the Bennett test (Figure 7), those scoring in the lower 50 per cent on the test had better examination grades than those in the upper 50 per cent. And of the four outstanding students, two were in the upper 25 per cent bracket, one was in the lowest 25 per cent and the other was in the next to lowest 25 per cent bracket. From these results, it appears that the Bennett test has little, if any, correlation to success in the program, yet mechanical comprehension is considered essential to a successful line supervisor.

Figure 7 shows the relationship between completed formalized education, average examination grades, and the selection tests.
Note: The grades do not include one trainee who prior to withdrawal from the program, had a 99 percent average.

FIGURE 3

PROGRAM GRADES OF DIVISION OFFICE RECOMMENDATIONS
SELECTION TEST GROUPS

Note: The grades do not include one trainee who was in the high 25 per cent bracket, and who prior to withdrawal from the program, had a 93 per cent average.

FIGURE 4

PROGRAM GRADES OF GROUPS ACCORDING TO SELECTION TEST SCORES
WONDERLIC PERSONNEL TEST

Note: The grades do not include one trainee who was in the high 25 per cent bracket and who, prior to termination of employment, had a 93 per cent average.

FIGURE 5

PROGRAM GRADES OF GROUPS ACCORDING TO THE WONDERLIC TEST SCORES
FILE AND RIMMER'S "HOW SUPERVISE?" TEST

Note: The grades do not include one trainee who was in the high 25 per cent bracket, and who, prior to termination of employment, had a 93 per cent average.

FIGURE 6

PROGRAM GRADES OF GROUPS ACCORDING TO THE "HOW SUPERVISE?" TEST
BENNETT MECHANICAL COMPREHENSION TEST

Note: The grades do not include one trainee who was in the high 25 per cent bracket and who, prior to termination of employment, had a 93 per cent average.

FIGURE 7

PROGRAM GRADES OF GROUP ACCORDING TO THE BENNETT MECHANICAL COMPREHENSION TEST SCORES
A - Three trainees with college training
B - Six trainees who completed high school
C - Four trainees who did not complete high school

*Note: The grades do not include one trainee who falls under classification B, and who prior to termination of employment had a 93 per cent average.

**FIGURE 8**

A comparison of the examination grades, Wonderlic and "How Supervised?" test scores based on the trainee's formalized education.
B. MANAGEMENT OBSERVATION - A VALID CRITERION?

In attempting to determine the validity (for the purposes of this study, validity shall mean good approximation) of personal judgments based on the classroom situation, one encounters as many different factors as there are judges. Each member evaluates in terms of his own experience as to what he considers to be the type of attitude and the traits necessary for successful supervisors. In addition it would be beneficial if these judgments could be compared to actual supervisory performance. But, at the present time, this is impossible since only one trainee is presently a supervisor and he has only been on the job for a very short period.

But despite these restrictions, it would appear from the consistent results shown in Figure 1 (page 17) that management observation was a reasonably valid criterion to use under the circumstances.

C. EXAMINATION GRADES - VALID CRITERION?

The use of the program examinations as a valid criterion is somewhat different. As stated on page 19, the results shown in Figures 2, 3, 4, and 5 gives cause to doubt their usage.

During the program, there were five examinations given. Three were objective type tests, consisting of ten questions each, which were given on the second, third, and fourth class sessions. Two were essay examinations, consisting of ten and fifteen questions. At the end of unit one (the sixth session), the first essay test was given and the trainees were permitted to use their books and notes. The second essay test was not the "open book" type and was given at the end of unit two. There was no examination given
for unit three as the last session of the program was devoted to analyzing problem cases through open discussion. It was in effect, an oral examination, as all of the plant staff heads and foremen were invited as guest observers along with representatives from the Head Office Training Department and the Central Division Office for the session.

In determining the average course grade of each trainee, the first essay examination was given a weight equal to twice that of the first three objective tests and the second essay examination was given a weight triple to that of the objective tests.

Tables III through VI show the correlation between scores on the Wonderlic Personnel test and the average score of the three objective examinations, the first and second essay examinations and the average course grade. It is significant to note that the objective examinations have a correlation of .83 (Table III). This relationship, according to a simplified guide outlined by Dr. H. E. Garrett of Columbia University, is to be considered high, while the relationship between the Wonderlic and the first essay examination (Table IV) and the average course grade (Table VI) is considered substantial. The relationship of the second essay examination is classified as negligible.

---

TABLE III

CORRELATION BETWEEN THE WONDERLIC TEST
SCORES AND THE AVERAGE GRADE
OF THE THREE OBJECTIVE
EXAMINATIONS

<table>
<thead>
<tr>
<th>Trainee</th>
<th>Rank of Wonderlic</th>
<th>Rank of Objective Tests</th>
<th>Difference</th>
<th>$D^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td>5</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>D</td>
<td>4</td>
<td>2.5</td>
<td>1.5</td>
<td>2.25</td>
</tr>
<tr>
<td>E</td>
<td>5</td>
<td>2.5</td>
<td>2.5</td>
<td>6.25</td>
</tr>
<tr>
<td>G</td>
<td>6</td>
<td>6.3</td>
<td>.3</td>
<td>.09</td>
</tr>
<tr>
<td>J</td>
<td>7</td>
<td>6.3</td>
<td>.7</td>
<td>.49</td>
</tr>
<tr>
<td>M</td>
<td>8.5</td>
<td>10</td>
<td>1.5</td>
<td>2.25</td>
</tr>
<tr>
<td>Q</td>
<td>10</td>
<td>6.3</td>
<td>3.7</td>
<td>13.69</td>
</tr>
<tr>
<td>R</td>
<td>11</td>
<td>11</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>S</td>
<td>12.5</td>
<td>9</td>
<td>3.5</td>
<td>12.25</td>
</tr>
<tr>
<td>U</td>
<td>12.5</td>
<td>12</td>
<td>.5</td>
<td>.25</td>
</tr>
<tr>
<td>V</td>
<td>8.5</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Sum of $D^2$ is: 51.52

"rho" = 1 - \( \frac{6 \times \text{the sum of } D^2}{N(N^2-1)} \)

1 - \( \frac{6 \times 51.62}{12(143)} \)

1 - \( \frac{309.12}{1716} \)

1 - .17

.83
TABLE IV

CORRELATION BETWEEN THE WONDERLIC TEST SCORES AND THE GRADES OF THE FIRST ESSAY EXAMINATION

<table>
<thead>
<tr>
<th>Trainee</th>
<th>Rank of Wonderlic</th>
<th>Rank of Essay Test</th>
<th>Difference</th>
<th>$D^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>5</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td>6.5</td>
<td>3.5</td>
<td>12.25</td>
</tr>
<tr>
<td>D</td>
<td>4</td>
<td>6</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>E</td>
<td>5</td>
<td>10.5</td>
<td>4</td>
<td>20.25</td>
</tr>
<tr>
<td>G</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>J</td>
<td>7</td>
<td>2.5</td>
<td>4.5</td>
<td>20.25</td>
</tr>
<tr>
<td>M</td>
<td>8.5</td>
<td>10.5</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Q</td>
<td>10</td>
<td>9</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>R</td>
<td>11</td>
<td>6.5</td>
<td>4.5</td>
<td>20.25</td>
</tr>
<tr>
<td>S</td>
<td>12.5</td>
<td>8</td>
<td>4.5</td>
<td>20.25</td>
</tr>
<tr>
<td>U</td>
<td>12.5</td>
<td>12</td>
<td>6</td>
<td>.25</td>
</tr>
<tr>
<td>V</td>
<td>8.5</td>
<td>2.5</td>
<td>6</td>
<td>36</td>
</tr>
</tbody>
</table>

Sum of $D^2$ is: 155.50

"rho" = $1 - \frac{6 \text{ times } 155.50}{13(188)}$

$1 - \frac{933}{2184}$

$1 - .42$

$.58$
TABLE V

CORRELATION BETWEEN THE WONDERLIC TEST
SCORES AND THE GRADES OF THE
SECOND ESSAY EXAMINATION

<table>
<thead>
<tr>
<th>Trainee</th>
<th>Rank of Wonderlic</th>
<th>Rank of Essay Test</th>
<th>Difference</th>
<th>( D^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>6</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>4.5</td>
<td>2.5</td>
<td>6.25</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>D</td>
<td>4</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>E</td>
<td>5</td>
<td>9.5</td>
<td>4.5</td>
<td>20.25</td>
</tr>
<tr>
<td>G</td>
<td>6</td>
<td>9.5</td>
<td>3.5</td>
<td>12.25</td>
</tr>
<tr>
<td>J</td>
<td>7</td>
<td>7</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>M</td>
<td>8.5</td>
<td>12</td>
<td>3.5</td>
<td>12.25</td>
</tr>
<tr>
<td>Q</td>
<td>10</td>
<td>4.5</td>
<td>5.5</td>
<td>30.25</td>
</tr>
<tr>
<td>R</td>
<td>11</td>
<td>3</td>
<td>7</td>
<td>49</td>
</tr>
<tr>
<td>S</td>
<td>12.5</td>
<td>8</td>
<td>4.5</td>
<td>20.25</td>
</tr>
<tr>
<td>U</td>
<td>12.5</td>
<td>11</td>
<td>0.5</td>
<td>.25</td>
</tr>
<tr>
<td>V</td>
<td>8.5</td>
<td>1</td>
<td>7.5</td>
<td>56.25</td>
</tr>
</tbody>
</table>

Sum of \( D^2 \) is: 233.00

"rho" = \( \frac{1-6 \times 233.00}{12(1113)} \)

1.1398

1718

1-.81

.19
<table>
<thead>
<tr>
<th>Trainee</th>
<th>Rank of Wonderlic</th>
<th>Rank of Average Grade</th>
<th>Difference</th>
<th>$D^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>3.5</td>
<td>2.5</td>
<td>6.25</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>.25</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td>3.5</td>
<td>.5</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>4</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>5</td>
<td>8.5</td>
<td>3.5</td>
<td>12.25</td>
</tr>
<tr>
<td>G</td>
<td>6</td>
<td>7</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>J</td>
<td>7</td>
<td>6</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>M</td>
<td>8.5</td>
<td>11</td>
<td>2.5</td>
<td>6.25</td>
</tr>
<tr>
<td>Q</td>
<td>10</td>
<td>5</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>R</td>
<td>11</td>
<td>8.5</td>
<td>2.5</td>
<td>6.25</td>
</tr>
<tr>
<td>S</td>
<td>12.5</td>
<td>10</td>
<td>2.5</td>
<td>6.25</td>
</tr>
<tr>
<td>U</td>
<td>12.5</td>
<td>12</td>
<td>.5</td>
<td>.25</td>
</tr>
<tr>
<td>V</td>
<td>8.5</td>
<td>1</td>
<td>7.5</td>
<td>56.25</td>
</tr>
</tbody>
</table>

Sum of $D^2$ is: 121.00

"rho" = \frac{1-6 \text{ times } 121.00}{12 (113)}

\[
\frac{1-726}{1716}
\]

1-.42

.58
Tables VII through X show the correlation between the scores on the first "How Supervise?" test (it was given again in an attempt to evaluate the program about eight months after the initial test) and the average score of the three objective examinations, the first and second essay examinations, and the average course grade. It is interesting to note that where there was a substantial correlation between the Wonderlic and the first essay examination, the correlation is low with the "How Supervise?" (Table VII). The reverse situation occurs in Table IX.

An odd twist to the results shown in these tables is the .72 relationship of the average course grade (Table X), because Tables VII through IX, composing the grade average in Table I, have correlations of .5, .28, and .48 respectively. Giving "weights" to the essay examinations has caused this difference, but even so, it would appear that the relationship should not exceed more than about .40, with or without weighting. The difference is attributable to the Author's use of the Spearman Rank Difference Coefficient of Correlation (rho.). Based on the recommendations of Van Ormer and Williams, "rho" is a simple yet effective method of determining correlation, particularly when there are thirty or less cases, where any correlation is only an approximation of the actual degree of correspondence between large samplings of two sets of variables. The author contends the use of the rank-difference method of correlation gives a distorted relationship in Table I, and that the correlation would be about

---

.40 using the formula for determining linear correlation (r).

In computing these correlations, the writer thought that the examinations would correlate with the Wonderlic more than with "How Supervise?" as the questions in the examinations were more factual seeking than geared for solving problems concerning the use of human relation principles. The fact that both have, in general, substantial relationships to the examinations gives adequate reason to accept the "rho" correlation of .60 between the Wonderlic and "How Supervise" test as valid (Table XI).

From the above results, it would appear to be safe in concluding that the objective type examinations have more validity as a criterion than essay examinations.
### TABLE VII

**CORRELATION BETWEEN THE "HOW SUPERVISE?" TEST AND THE AVERAGE GRADE OF THE THREE OBJECTIVE EXAMINATIONS**

<table>
<thead>
<tr>
<th>Trainee</th>
<th>Rank of &quot;How Supervise?&quot;</th>
<th>Rank of Objective Tests</th>
<th>Difference</th>
<th>$D^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>4.00</td>
</tr>
<tr>
<td>B</td>
<td>6</td>
<td>1</td>
<td>5</td>
<td>25.00</td>
</tr>
<tr>
<td>C</td>
<td>4.5</td>
<td>5</td>
<td>.5</td>
<td>.25</td>
</tr>
<tr>
<td>D</td>
<td>1</td>
<td>2.5</td>
<td>1.5</td>
<td>2.25</td>
</tr>
<tr>
<td>E</td>
<td>8.5</td>
<td>2.5</td>
<td>6</td>
<td>36.00</td>
</tr>
<tr>
<td>G</td>
<td>10.0</td>
<td>5.3</td>
<td>4.7</td>
<td>22.09</td>
</tr>
<tr>
<td>J</td>
<td>8.5</td>
<td>5.3</td>
<td>3.2</td>
<td>10.24</td>
</tr>
<tr>
<td>M</td>
<td>11.0</td>
<td>10</td>
<td>1.5</td>
<td>1.00</td>
</tr>
<tr>
<td>Q</td>
<td>4.5</td>
<td>5.3</td>
<td>.8</td>
<td>.64</td>
</tr>
<tr>
<td>R</td>
<td>13</td>
<td>11</td>
<td>2</td>
<td>4.00</td>
</tr>
<tr>
<td>S</td>
<td>12</td>
<td>9</td>
<td>3</td>
<td>9.00</td>
</tr>
<tr>
<td>U</td>
<td>7</td>
<td>12</td>
<td>5</td>
<td>25.00</td>
</tr>
<tr>
<td>V</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Sum of $D^2$ is: 139.47

"rho" = $\frac{1-6 \times 139.47}{1716}$

1-836.82

1716

1-0.49

.51
### TABLE VIII

CORRELATION BETWEEN THE "HOW SUPERVISE?" TEST AND THE GRADES OF THE FIRST ESSAY EXAMINATION

<table>
<thead>
<tr>
<th>Trainee</th>
<th>Rank of &quot;How Supervise?&quot;</th>
<th>Rank of First Essay Test</th>
<th>Difference</th>
<th>$D^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>B</td>
<td>6</td>
<td>1</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>C</td>
<td>4.5</td>
<td>6.5</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>D</td>
<td>1</td>
<td>6</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>E</td>
<td>8.5</td>
<td>10.5</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>G</td>
<td>10</td>
<td>4</td>
<td>6</td>
<td>36</td>
</tr>
<tr>
<td>J</td>
<td>8.5</td>
<td>2.5</td>
<td>6</td>
<td>36</td>
</tr>
<tr>
<td>M</td>
<td>11</td>
<td>10.5</td>
<td>.5</td>
<td>.25</td>
</tr>
<tr>
<td>R</td>
<td>4.5</td>
<td>9</td>
<td>4.5</td>
<td>20.25</td>
</tr>
<tr>
<td>S</td>
<td>13</td>
<td>6.5</td>
<td>6.5</td>
<td>42.25</td>
</tr>
<tr>
<td>U</td>
<td>12</td>
<td>8</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>V</td>
<td>7</td>
<td>12</td>
<td>5</td>
<td>25</td>
</tr>
</tbody>
</table>

Sum of $D^2$ is: 263.00

"rho" = \( \frac{1-6 \text{ times } 263}{2184} \)

\[ \frac{1-1578}{2184} \]

1-72

.28
### TABLE IX

**CORRELATION BETWEEN THE "HOW SUPERVISE?" TEST AND THE GRADES OF THE SECOND ESSAY EXAMINATION**

<table>
<thead>
<tr>
<th>Trainee</th>
<th>Rank of &quot;How Supervise?&quot;</th>
<th>Rank of Second Essay Test</th>
<th>Difference</th>
<th>$D^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2</td>
<td>6</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>B</td>
<td>6</td>
<td>4.5</td>
<td>1.5</td>
<td>2.25</td>
</tr>
<tr>
<td>C</td>
<td>4.5</td>
<td>2</td>
<td>2.5</td>
<td>6.25</td>
</tr>
<tr>
<td>D</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>E</td>
<td>8.5</td>
<td>9.5</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>G</td>
<td>10</td>
<td>9.5</td>
<td>.5</td>
<td>.25</td>
</tr>
<tr>
<td>J</td>
<td>8.5</td>
<td>7</td>
<td>1.5</td>
<td>2.25</td>
</tr>
<tr>
<td>M</td>
<td>11</td>
<td>12</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Q</td>
<td>4.5</td>
<td>4.5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>R</td>
<td>13</td>
<td>3</td>
<td>10</td>
<td>100</td>
</tr>
<tr>
<td>S</td>
<td>12</td>
<td>8</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>U</td>
<td>7</td>
<td>11</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>V</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>-4</td>
</tr>
</tbody>
</table>

Sum of $D^2$ is: 165.00

"rho" = $1 - \frac{6 \times 165}{1716}$

$1 - \frac{.990}{1716}$

$1 - .52$

$.48$
### Table X

**CORRELATION BETWEEN THE "HOW SUPERVISE?" TEST AND THE AVERAGE COURSE GRADE**

<table>
<thead>
<tr>
<th>Trainee</th>
<th>Rank of &quot;How Supervise?&quot;</th>
<th>Rank of Average Grade</th>
<th>Difference</th>
<th>$D^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2</td>
<td>3.5</td>
<td>1.5</td>
<td>2.25</td>
</tr>
<tr>
<td>B</td>
<td>6</td>
<td>2</td>
<td>4.0</td>
<td>16.00</td>
</tr>
<tr>
<td>C</td>
<td>4.5</td>
<td>3.5</td>
<td>1.0</td>
<td>1</td>
</tr>
<tr>
<td>D</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>E</td>
<td>8.5</td>
<td>8.5</td>
<td>0.0</td>
<td>0</td>
</tr>
<tr>
<td>G</td>
<td>10</td>
<td>7</td>
<td>3.0</td>
<td>9</td>
</tr>
<tr>
<td>J</td>
<td>8.5</td>
<td>6</td>
<td>2.5</td>
<td>6.25</td>
</tr>
<tr>
<td>M</td>
<td>11</td>
<td>11</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Q</td>
<td>4.5</td>
<td>5</td>
<td>5</td>
<td>.25</td>
</tr>
<tr>
<td>R</td>
<td>13</td>
<td>8.5</td>
<td>4.5</td>
<td>20.25</td>
</tr>
<tr>
<td>S</td>
<td>12</td>
<td>10</td>
<td>2.0</td>
<td>4</td>
</tr>
<tr>
<td>U</td>
<td>7</td>
<td>11</td>
<td>4.0</td>
<td>10</td>
</tr>
<tr>
<td>V</td>
<td>3</td>
<td>1</td>
<td>2.0</td>
<td>4</td>
</tr>
</tbody>
</table>

Sum of $D^2$ is: 79.00

"rho" = $1 - \frac{6 \times 79}{171}$

$1 - \frac{474}{171}$

$1 - .28$

.72
**TABLE XI**

**CORRELATION BETWEEN THE WONDERLIC AND THE "HOW SUPERVISE?" TESTS**

<table>
<thead>
<tr>
<th>Wonderlic</th>
<th>&quot;How supervise?&quot;</th>
<th>Difference</th>
<th>( D^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1.00</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
<td>4</td>
<td>16.00</td>
</tr>
<tr>
<td>3</td>
<td>4.5</td>
<td>1.5</td>
<td>2.25</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>3</td>
<td>9.00</td>
</tr>
<tr>
<td>5</td>
<td>8.5</td>
<td>3.5</td>
<td>12.25</td>
</tr>
<tr>
<td>6</td>
<td>10.0</td>
<td>4.0</td>
<td>16.00</td>
</tr>
<tr>
<td>7</td>
<td>8.5</td>
<td>1.5</td>
<td>2.25</td>
</tr>
<tr>
<td>8.5</td>
<td>11.0</td>
<td>2.5</td>
<td>6.25</td>
</tr>
<tr>
<td>10</td>
<td>4.5</td>
<td>4.5</td>
<td>20.25</td>
</tr>
<tr>
<td>11</td>
<td>13</td>
<td>2</td>
<td>4.00</td>
</tr>
<tr>
<td>12.5</td>
<td>12</td>
<td>5</td>
<td>.25</td>
</tr>
<tr>
<td>12.5</td>
<td>7</td>
<td>5.5</td>
<td>30.25</td>
</tr>
<tr>
<td>8</td>
<td>3</td>
<td>5</td>
<td>25.00</td>
</tr>
</tbody>
</table>

Sum of \( D^2 \) is: \( 114.75 \).

\[ "rho" = 1 - \frac{6 \times 114.75}{2184} \]

\[ 1 - \frac{888.50}{2184} \]

\[ 1 - .40 \]

\[ .60 \]
CHAPTER V

RESULTS OF THE PROGRAM

A. THE TRAINEES OPINIONS OF THE PROGRAM

In order to determine what the trainees thought of the program, each was asked to give his considered opinion of the course. A questionnaire was developed by the writer to secure this information. It consisted of two parts; one was designed to get a grade evaluation of each topic in terms of excellent to poor. The other part consisted of eighteen questions which attempted to get more specific and penetrating answers from the trainees.

The trainees were asked not to sign their names on the questionnaire forms and to be as honest and objective as possible because the Company intended to weigh their opinions carefully in setting up the program for other plants. They were given approximately one hour at the next to last class session to complete the forms. Eleven of the twelve completed the questionnaire. Exhibits A and B contain summaries of the evaluations.

B. AN ANALYSIS OF THE TRAINEES EVALUATIONS

In attempting to analyze the results contained in Exhibits A and B, certain discrepancies are seen which require explanation. There are basically two factors to consider in an evaluation of this type: the topic and its presentation. It is difficult at times to separate these two factors. However, after many personal conversations with each of the
trainees, the writer believes that the following results are a reliable picture of the trainees' opinions of the program and should clear up any discrepancies as to what is being rated, the topic or the presentations.

1. All of the trainees felt that the program was well worth the time and effort expended, that it gave them a better understanding of the supervisors' job, and that they would like to become supervisors. The general impression received in the writer's personal conversation with the trainees showed a definite and enthusiastic attitude towards the program.

2. Discipline was by far the best liked topic. The reason why the topic rated so high was due to its exceptional presentation. Not only did it rank the highest on the grade scale (Exhibit A), but it was selected as one of the three most liked topics by eight of the eleven evaluators (question 1, Exhibit B), twice that of any other topic. In addition, not one evaluator chose it as one of the three topics he disliked the most (question two, Exhibit B).

3. The topic of Quality, on the other hand, had the lowest rating due to its inadequate presentation. The writer has talked to all of the trainees and the general impression received was that while all were very much aware of the topic's importance, the manner in which it was presented made it somewhat boring and technical, as the instructor was read in a rote fashion from the leader's guide, and did not bring in his own personal experiences (on the plant level) which would have given the topic the "life" it needed.
4. "Company History, Structure, Products and Facilities" was appreciated by most of the trainees because it gave them a clearer idea of the Company's size and its role in the industrial situation. A few of the trainees felt the presentation was too detailed.

5. "Training and Job Instruction" were topics which received generally favorable results. Not one trainee listed the topics as one of the three he disliked the most. The general reason why the topic was so well received was due to the subject matter rather than its presentation.

6. "Human Relations" was also rated favorably. Not one trainee listed it as one of the three topics he disliked the most, while three trainees listed it as one of the three they liked the best. Again, the general reason for its favorable acceptance was the subject matter rather than the presentation.

7. Although "Safety" received a good rating (Exhibit A), the general reason for this was due more to the importance of the subject itself than its presentation. There were a few adverse comments, both from the evaluation and in personal conversation, on the presentation. The comments centered around the fact that the instructor was too technical and hurried too much through the presentation.

8. "Employee Benefit Plans" also received a good rating on Exhibit A, but there were several comments as to the practicality of including the subject in the program, since adequate literature was available
to anyone wanting to know the details of the plans.

9. "Fundamentals of Management" was given a good rating, yet no trainee liked it well enough to rate it as one of the best three topics. In personal conversation with the trainees, the writer concludes that the general reaction of the trainees to this topic was a neutral one.

10. "The Supervisor's Job" was also given a good rating (Exhibit A). However, it also had a neutral reaction and in general, it wasn't considered one of the best topics nor was it considered one of the worst.

11. The general reaction to "Profit Planning" was that it was too detailed and technical. Two of the trainees who had some accounting background enjoyed the lecture, but in personal conversation with the trainees, the writer concludes that their reaction indicated that the subject material as presented was too complex for such a short period of time.

12. "Company Policies" received a "lukewarm" reaction. No comments were made on it in Exhibit B, and in conversation, the general reaction was that the subject was fairly received but was not outstanding, one way or the other.

13. "Handling Grievances" was enjoyed by almost all of the trainees. The presentation of the material was good and the subject was of interest to all. One trainee commented that the topic was too abstract, but this was the only adverse comment received.
14. "Labor Relations" received a fair rating. One trainee commented on enjoying learning the history of unionism, while another commented that there was too much on history. The general impression received in conversation was favorable.

15. "Personal Planning" was not received too well. General comments were that more adequate explanation was needed and that sufficient time was not given to the topic.
EVALUATION BY TRAINEE GROUP OF PRE-SUPERVISORY TRAINING PROGRAM - PLANT #51
PILOT SESSIONS

EXHIBIT A

The topics listed below are to be evaluated in terms of your considered opinion and based on the following standards: A - Excellent-5 points, B - Good-4 points, C - Average-3 points, D - Fair-2 points, and E - Poor-1 point.

The topics are as follows:

<table>
<thead>
<tr>
<th>Average Points</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>1. History, Organizational Structure, and Products and Facilities of the Company.</td>
</tr>
<tr>
<td>3.7</td>
<td>2. Company Policies on Employment, Wages and Salaries, Idea Plan, etc.</td>
</tr>
<tr>
<td>4.0</td>
<td>3. Employee Benefit Plans.</td>
</tr>
<tr>
<td>3.9</td>
<td>5. The Supervisor's Job - Position Analysis of an Assistant Foreman.</td>
</tr>
<tr>
<td>3.9</td>
<td>6. The Supervisor's Role in Training Employees.</td>
</tr>
<tr>
<td>4.0</td>
<td>7. The Supervisor's Role in Job Instruction Method.</td>
</tr>
<tr>
<td>3.7</td>
<td>8. The Supervisor's Role in Safeguarding the Worker.</td>
</tr>
<tr>
<td>2.4</td>
<td>9. The Supervisor's Role in Controlling Quality.</td>
</tr>
<tr>
<td>4.2</td>
<td>10. The Supervisor's Role in Maintaining Discipline.</td>
</tr>
<tr>
<td>3.1</td>
<td>11. The Supervisor's Role in Personal Planning.</td>
</tr>
<tr>
<td>3.7</td>
<td>12. The Supervisor's Role in Labor Relations.</td>
</tr>
<tr>
<td>4.0</td>
<td>13. The Supervisor's Role in Handling Grievances.</td>
</tr>
</tbody>
</table>
EXHIBIT A (Cont'd.):

Average Points

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3.9</td>
<td>14. The Supervisor's Role in Maintaining Human Relations.</td>
</tr>
<tr>
<td>3.5</td>
<td>15. The Supervisor and Profit Planning.</td>
</tr>
</tbody>
</table>

Eleven of the twelve trainees completed the evaluation.
EXHIBIT B

1. Of the different topics given, which 3 do you like the best? Place the topics in the order of your preference, and briefly state the reason why you prefer each of them. (Base your answer on such items as the subject material, the manner in which it was presented, or any other reason that you might have.)

<table>
<thead>
<tr>
<th>Topic</th>
<th>Times Selected</th>
<th>Preference Weight*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintaining Discipline</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>Maintaining Quality</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Company History</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Human Relations</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Safeguarding Worker</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Training Employees</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Profit Planning</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Handling Grievances</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Benefit Plans</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Supervisor's Job</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Labor Relations</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Job Instruction</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

*Three points given for each first choice, two for second, and one for third.

2. List the 3 topics you thought the least of and briefly explain why in the same way that you did in question No. 1.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Times Selected</th>
<th>Preference Weight*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit Planning</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>Maintaining Quality</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Personal Planning</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Benefit Plans</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Labor Relations</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Management Fundamentals</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Company History</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Safeguarding Worker</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Handling Grievances</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Supervisor's Job</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

*Three points given for first choice, two for second, one for third.
EXHIBIT B (Cont'd.):

3. Do you think the order of presenting the course satisfactory? Is there any possible way it can be improved upon? (For example, you may think that human relations should have been taught earlier in the course ahead of the Supervisor's Role in Training Employees.)

Generally satisfactory.

4. Do you believe the program should have been conducted on another basis other than what it was conducted on? If so, what? (An example here would be a conference or question-answer type program.)

Majority stressed more open discussion.

5. Do you now have a different concept of what a supervisor's job is? Explain any change in your opinion about the job of a supervisor which may have resulted from your attending this program.

Generally greater awareness of responsibilities.

6. Do you feel that you would like to become a supervisor now that you have been acquainted with the responsibilities of his job? If not, explain why.

All express interest in entering supervision with additional comments that the program gave them a better understanding of the supervisor's job.

7. What area or areas of study did you think we can improve on in presenting this program? (Such as Industrial Engineering, or more or less training in human relations, etc.)

Individual comments suggested more time and emphasis on Human Relations, Quality, Discipline, Grievances, Safety, Profit Planning, Company Policies and Benefits.

8. Is there any topic which we can add which will make the program more beneficial?

Individual comments suggested topics concerning Paper Work, Shipping, Inventory and Costs, Plant Tour, Engineering Standards, Purchasing, Sales, Machinery, Maintenance, Course Introduction.
EXHIBIT B (Cont'd.):

9. Do you think the program was too long or too short? How long do you think it should be if it is to be the most effective?

    Majority stressed course was too short with most comments recommending 80 hour length.

10. Do you like the idea of meeting for two hours or would you have preferred some alternate schedule such as one hour a night, two nights a week? If so, explain.

    Majority preferred two hours per session but suggested two sessions per week to preserve continuity of material.

11. What do you think of the outline material given you?

    Generally favorable and considered useful.

12. How about the minutes? Were they of value?

    Considered valuable, especially for review.

13. Do you feel that the course itself is important enough to be taught to other employees in our plant?

    Generally considered that the course itself is important enough to extend it to other employees requesting it, whether or not they wish to become supervisors or not.

14. Do you feel the course is as important for office workers as it is for the hourly rated employees?

    Majority felt that the office workers would benefit as much as the shop workers.

15. Do you think the program is realistic or do you think it to be "up in the clouds"? Briefly explain.

    General agreement that the program was definitely realistic.

16. Did you do any outside readings in the program? We refer particularly to the use of the bibliography that was given you early in the program.

    Generally bibliography utilized very little.
17. Do you have any comments which are not covered by the questions? We would appreciate you stating them to us.

Two trainees had comments:

1. Management should put more emphasis on the program and create classes more often.

2. Some of the instructors were inadequately prepared and read from the Leaders Guide continually. Instructors selected to give specific sections should know the material before presentation.

18. Do you think, in giving future classes in the program, that management should screen employees first as you have been screened or do you think it should be open to anyone who desires to take the program?

Screening generally recommended.
C. MANAGEMENT'S APPRAISAL OF TRAINEES

Three of the four trainees considered as outstanding students have been recommended by the Committee on Training for a formalized six month job rotation training program, upon completion of which each would be assigned a supervisory position. These recommendations have been submitted to the Central Division Office who have given their approval to them.

However, the three trainees will not be placed in training immediately, but as vacancies occur in the foremanship ranks. At Plant #51, there will be four or five vacancies within the next four year period due to retirements alone. It is planned to place the trainee on the job rotation training program six months prior to the retirement date of the present foremen. Should a vacancy occur which is unforeseen, all attempts will be made to give the trainee selected to fill the vacancy as much training as is possible prior to placement. Once appointed a supervisor, he will receive training in the plant Supervisory Development Program and will be given training in some of the Company's formal Head Office training courses.

The other trainee chosen as outstanding (and also recommended by Division Office as a result of his selection test scores) left the Company before completing the program for a supervisory position with another corporation.

Another trainee who was not chosen as outstanding, but who was an average student, has been assigned the position of Assistant Foreman in the Shipping Department, where he has been employed for the last fifteen years. Conversation with the Shipping Department Foreman indicates that the man is
doing well in his new position. The reason why the outstanding students were not selected for the position was because of the selected trainee's experience. The outstanding trainees themselves have experience in departments that will have vacancies shortly, and for which they are tentatively scheduled to fill.

Another trainee, not chosen as outstanding but recommended by the Central Division as a result of his selection test scores, has been recommended for a job rotational training program also. The man was a better than average student. He is also a highly skilled technician, whose technical background is a vital requirement for supervision in his department.
CHAPTER VI

GENERAL CONCLUSIONS

A. RESULTS OF THE PROGRAM AS MEASURED BY THE TEST "HOW SUPERVISE?"

"How Supervise?" has been offered as a test which is able to evaluate a training program, particularly training in human relations. Numerous studies have been done to validate its usage for this purpose. Wickert, in his study gave the test to students before and after a course in psychology and concluded that the test has validity in the sense that gains on the scores correspond closely to the known content of the course; the greater the human relations content, the greater the test score gain. 11 Barthol and Zeigler concluded from their study that the test is usable for assessing the effectiveness of a supervisory training program. 12 Based on these results, the writer believes that using the test to evaluate the program at Plant #51 was an approach that had definite merit.

The test was administered to the trainees for the second time at the last class session, approximately eight months after it was given as a


selection test. The following scores indicate the differences in scores made by each trainee on the first and second administration of the test. The percentile factors utilized have been validated for the test and are based on the level on Assistant Foreman, Foreman, and General Foreman.

TABLE XII

A COMPARISON OF THE "HOW SUPERVISE?" TEST SCORES BEFORE AND AFTER A PRE-SUPERVISORY TRAINING PROGRAM AT PLANT #51'S PILOT SESSION

<table>
<thead>
<tr>
<th>Trainee</th>
<th>1st Test Score</th>
<th>2nd Test Score</th>
<th>Percentile Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>93</td>
<td>99</td>
<td>6</td>
</tr>
<tr>
<td>B</td>
<td>95</td>
<td>78</td>
<td>13</td>
</tr>
<tr>
<td>C</td>
<td>73</td>
<td>86</td>
<td>15</td>
</tr>
<tr>
<td>D</td>
<td>96</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>E</td>
<td>53</td>
<td>92</td>
<td>39</td>
</tr>
<tr>
<td>F</td>
<td>45</td>
<td>63</td>
<td>18</td>
</tr>
<tr>
<td>G</td>
<td>53</td>
<td>89</td>
<td>36</td>
</tr>
<tr>
<td>H</td>
<td>45</td>
<td>75</td>
<td>30</td>
</tr>
<tr>
<td>I</td>
<td>73</td>
<td>92</td>
<td>19</td>
</tr>
<tr>
<td>J</td>
<td>12</td>
<td>26</td>
<td>16</td>
</tr>
<tr>
<td>K</td>
<td>25</td>
<td>50</td>
<td>15</td>
</tr>
<tr>
<td>L</td>
<td>60</td>
<td>93</td>
<td>1</td>
</tr>
</tbody>
</table>

Average Percentile Gain 16.5

The average percentile rank of the trainees for the first test was 57.4 per cent while the average for the second test was 73.9 per cent. The fact that each trainee's score increased, with one exception, on the second test would seem to indicate that the program tended to improve the trainee's understanding and insight into human relations as it applies in

---

the supervisor's execution of responsibilities.

B. PERSONAL RECOMMENDATIONS BY THE WRITER

As a result of having been active in the pilot session at Plant #51, the writer submits the following comments and recommendations, many of which are in agreement with the revised program established by the Head Office Training Department.

1. Use of Selection Tests

   If the tests are used to determine the acceptance or rejection of an applicant, he should be advised of this. If it is decided that all applicants are to be accepted, they should be informed that the test results merely supply the Committee with further information about each trainee and provide a marker by which to test the program.

   The writer recommends that the test be utilized for the sole purpose of giving the members of the Committee additional insight into each applicant's knowledge.

2. The Bennett Mechanical Comprehension Test

   The Bennett test is widely used in industry and has had favorable results. The writer is of the opinion that the test is of little significance in determining the trainee's chances for success in the program itself. However, because mechanical comprehension is an important quality for the line supervisor to have, the writer concurs with the Central Division Office on their giving it a weight equal to that of the other selection tests included in the battery.
3. The Wonderlic Personnel Test

Halsey, in his discussion on qualities significant in predicting the success of supervisors, states that a supervisor, to be successful, must have an alert mind; he must be capable of learning new methods quickly. He also recommends using the Wonderlic to measure this quality. Mr. Halsey is only one of many who recommend using the test. It has been widely used in industry with excellent results. The author contends that a supervisor should have intelligence which is at least above average, and that the Wonderlic test, being short, easily administered, and proven is a good test to use.

4. The "How Supervise?" Test

"How Supervise?" is supposed to be a good test for selecting candidates for supervisory positions. Much has been written on it. Lawshe tells of using the test on twenty superior and twenty inferior supervisors. The percentile factors of the superior group was 96 compared to 63 for the poorer group. Although both groups did appear to be above the average, a significant difference appears between those the company considered inferior and

---


16 File, p. 326.
and superior. In another study by File and Remser, the test was given to forty-six successful supervisors and fifteen non-supervisors by-passed because of judged lack of ability. Eighty per cent of the successful supervisors scored in the upper half of the test while 85 per cent of the non-supervisors scored in the lower half.

Others have found different results. In a study by Werts and Nickols of seventy-eight insurance agents, they found that the only item that was related to the test was educational achievement (intelligence?). Millard found a substantial correlation between the test and intelligence using the Adaptability test as a measure of intelligence for factory supervisors. And Wickert, from his study, states that the test for non-high school graduates measures intelligence (or readability of "How Supervise?") rather than a knowledge of the principles of supervision. However, the study also disclosed that for high school graduates, the test has little relationship with intelligence test scores. Maloney's study

17 Lawshe, p. 173


21 F. H. Wickert, "Relation Between 'How Supervise?', Intelligence, and Education for a Group of Supervisory Candidates in Industry", 36 (1952), 303.
concludes that the readability of the test is at the high school level and that for personnel of lower educational status, it is of doubtful validity. 22 File, in his study of the relationship of the test to education (intelligence?), found a correlation factor of .35 with some 577 cases, and he states that while such a test should not correlate highly with the amount of education, doubtless formalized schooling does provide learning situations which are generally helpful. It is interesting to note that the "rho" correlation between the Wonderlic and the "How Supervise?" test for the trainees of the program was .60 (Table XI, page 38). However, the applicants in the program are required to have a high school education or its equivalent as a requirement for selection. Because the general educational level would normally be that of the high school graduate level, and based on the findings of Wickert and Faloney, the author is of the opinion that the test is of valid use for giving the Committee insight into each applicant's knowledge of the principles of supervision. If the "rho" correlation of .60 (Table XI) were based on a more empirical study, the author would question the validity of the test, but with the limited sample used, it can only be regarded as an approximation, and the studies of Wickert and Faloney seem to overcome this fact.

23 File, 323-327.
5. Use of Supervisor's Recommendation as a Factor in Determining the Acceptance or Rejection of an Applicant

The success of using the personal judgment of a supervisor is a direct function of his psychological insight. Such insight as is required for judging ability, interest, adaptive capacity, and promise of a worker is a rare phenomena. It is also difficult for individuals to isolate factors of favoritism and personal prejudice from their recommendations, and according to Chiselli, with scientific procedures and technicians available, there is little need for this method. 24

However, even with the limitations of personal judgment as set forth above, the author is of the opinion that no one knows an applicant better than his immediate supervisor, and that the supervisor would generally recommend a man for the program, unless there was some outstanding factor (such as excessive tardiness, absenteeism, horseplay, etc.) which would definitely indicate that the individual does not have the qualities normally expected of supervisors. For a comprehensive listing of qualities significant in predicting the success of supervisors, consult Halsey's "Selecting and Developing Supervisors". 25

Still, there were weaknesses in the supervisory recommendation

24 Chiselli and Brown, p. 347.

procedure used at Plant #51, which can be improved. Based on some of the recommendations of Halsey, the writer recommends the following procedure be applied at the local plant levels:

a. After the men have applied for the program, the Plant Instructor would interview their supervisors to discuss their recommendations. A standard questionnaire or rating sheet could be developed to secure and evaluate the data.

b. The Plant Instructor would then interview each applicant, using another standard rating sheet for evaluating the results of the interview.

c. The results of the supervisor's recommendation and the interview could then be submitted to the Committee on Training for the final decision.

The writer is of the opinion that this procedure would promote more consistency in analyzing the qualities required for supervision and how each applicant meets these qualities, and that it would be a more fair and thorough method of selection. Examples of the type of questionnaire and rating sheets used in the procedure outlined above are included in Halsey's work.

6. Selection of Applicants

The writer is of the opinion that all applicants should be accepted into the program, because the program at Plant #51 proved to be a good morale booster to the trainees. Almost everyone completing the

---

26 Halsey, pp. 56-64.
program will have a better insight into the problems faced by the supervisor, and the worker-trainee will also tend to be more understanding in his reactions to the manner in which the supervisor exercises his responsibilities. In addition, the more positive attitude developed by the trainee may make him a better employee and may possibly affect the actions and attitudes of his fellow workers advantageously. However, it must be stressed to the selected applicants that completion of the program in no way guarantees any trainee a promotion into the supervisory ranks.

7. Location, Time and Sequence of the Program

The conference room, used for the program in a location where interruptions were kept at a minimum, proved very satisfactory. The students' suggestion that the program be presented two nights per week instead of one night has definite merit. This would guarantee the completion of at least one topic each week, and it would help the trainees to center their attention on the topic presented, rather than having to pick up where the topic was discussed a week ago. It is further recommended that the program be no longer than two hours long in duration. Any longer period may overtax the trainee's receptivity. As was the procedure at Plant #51, it is wise to provide a breathing spell in the middle of the session so the trainees may stand up and "stretch their legs".

8. Leader's Guide

The Leader's Guide was prepared to serve only as a guide and was
not intended to be merely read to the students. However, the
guide, as written for the pilot session made it easy for the
instructor to use it as a "lecture". The writer feels that this
guide would be more effective if it is reduced in detail, to some
degree. Stress could be placed on the importance of the leader
illustrating, with incidents from his own experience, some of the
problems of his particular subject (on the local plant level).
Actual cases can be duplicated and given to the students to illus-
trate any basic principle or concept in the event the instructor
cannot think of one from his own experience to get across his
ideas.

9. Outside Readings

A bibliography as was used in the pilot session at Plant #51 is
recommended, so that the trainee has an opportunity to supplement
the knowledge received in the program. The periodicals and books
listed on the bibliography should be available at the plant's
library.

10. Use of Text for Trainees

At Plant #51, outlines of the materials presented were given to
the trainees. The Head Office Training Department has developed a
text which contains reviews of each topic. The author agrees
entirely with the Training Department's action.

C. REVISION OF THE PROGRAM BY THE HEAD OFFICE TRAINING DEPARTMENT

As the writer has noted on page 2 of Chapter I, the pilot session at
Plant #51 was one of three set up by the Head Office Training Department in
an attempt to create a realistic and interesting Pre-Supervisory Training
program which could be established on a standardized basis in the Company's
139 plants throughout the United States, Canada, and Cuba.

It is clear that the pilot session held at Plant #51 was developmental
in nature and is not to be considered an authorized and approved Company
training program.

As a result of the analysis of all three pilot sessions made by the
Head Office Training Department personnel and other men in the Divisions
where the sessions were held, the final Head Office approved program has
been published. The contents, sequences, and timing of this approved pro-
gram are shown in Appendix III.

D. SIGNIFICANT DIFFERENCES BETWEEN THE REVISED PROGRAM AND THE PILOT
SESSION AT PLANT #51

The program is now broken down into four units, based on topic areas.
However, this is similar to the pilot session in the pattern of presenta-
tion (from almost all lecture, to short lecture with guided discussion, to
predominant group discussion supplemented by case studies and role playing).

In unit one, a section on "Using Staff Services" and in unit three,
a section on "Production, Inventory, and Maintenance have been added to the
program. The subject of "Profit Planning" has been presented in a much less
complex form than was the case at Plant #51, and the topic of "Personnel
Planning" is to be included in the final session of the course in brief
form.
V. PERSONAL COMMENTS BY THE WRITER ON THE CONTENTS OF THE REVISED PROGRAM

As stated on page 1 of Chapter I, the purpose of the program is to develop a reserve group of qualified candidates available for vacancies in the foreman and assistant foreman ranks. The program is designed to give a candidate basic training in certain fundamentals of supervision. It is not to be considered sufficient in itself to qualify a man for supervision, but is a first phase of his training. Additional training is required before placing a man as a supervisor. It is with this concept in mind that the author makes the following topic recommendations and comments.

1. On the Reorganization of the Units

The revision seems to have more continuity and simplicity than the division of units at Plant #51. The author believes that giving a summary at the end of each unit is very useful in that it gives the trainee the opportunity to review highlights of each topic and to clear up any misunderstandings he may have.

2. Human Relations

It is generally recognized today that a supervisor has many duties and responsibilities, and many varied abilities and traits are required for their proper fulfillment. Ghiselli illustrates the complex requirements of supervision, particularly in reference to human relations.27 The foreman frequently has much to say in hiring his men. From this, he should know the fundamental human abilities and traits that are essential to success on a job, and he should be able to detect these qualities in others. He orients

27Ghiselli and Brown, pp. 359-360.
and trains his workers. To do this, he must be a teacher. He
must know the necessary facts of the Company, its products, and
facilities. He must also possess the mental and personality
characteristics required to mentor his new subordinates success-
fully. He must be able to rate the effectiveness of his workers.
Here he must possess wisdom and impartiality. He must understand
how to evaluate complex human behavior, be aware of individual
differences, and the source and nature of personal biases that
affect his own judgment. The foreman must be a sympathetic
listener - a father confessor. He must be able to give advise
and counsel, exercise tact and understanding, make evaluations
in interpreting the workers' problems in terms of Company policy.
He is a truant officer for problem employees and is required to
mete out disciplinary and corrective measures. This requires
insight into the underlying basis of human behavior.

One can easily see that human relations training is a basic and
highly important area of knowledge, and one which cannot be
neglected in any type of supervisory training program. Throughout
industry, this fact is recognized. The author, in doing research,
has read of many supervisory training programs and did not find
one program that omitted training in human relations.

In the revised Pre-Supervisory training program, the topic of
Human Relations is the first topic under unit four (Leadership).

26 Ibid.
It is not to be considered the only section where human relations training is given. As was the case at Plant #51, the human relations approach is used throughout the entire program, particularly in unit four.

The author is of the opinion that the best way to teach principles in human relations is by using the human relations approach to problem areas such as administering discipline, handling complaints, counseling troubled employees, etc. The actual session on Human Relations enumerates on basic psychological principles, and applies them through case studies and role playing. This approach is in agreement with the findings of Fryer and Associates who state that the methods used in training to achieve good human relations appearing to be most successful are of the participating variety. Case discussions help clarify many points and role playing, while time consuming, is well worth the effort. Case methods provide a realistic setting in which the complexity of human relations is seen. Emphasis is on the feelings, attitudes, and reactions of people, and not just the facts.

The author believes that the session on "Human Relations" as given in the pilot session, and the general human relations approach to the program was commendable, and should be followed in like manner in the revised program.

3. Our Company

This topic includes the history, products, and facilities of the Company. This is a most important subject. Here, the trainees are given a comprehensive picture of the size and growth of the Company. The revised program has reduced it in detail from presentation at the pilot session. The author is in agreement with this change, and recommends that in discussing the various products of the Company, samples should be shown.

4. Management Principles and Functions

The teaching of this topic is in accordance with the goals of foremanship training listed by Beckman, who states that foreman should have a broad understanding of the principles of management and possibly, some fundamentals of business economics.

The writer believes it important in the program because it gives the trainee an idea of some of the functions and principles of management. It is suggested that some of the problem areas which may cause difficulty to management in fulfilling its responsibilities be included.

5. The Supervisor's Job

The first goal of foremanship training listed by Beckman was to give the supervisor a more complete conception of his responsibilities. It goes without saying that the same is true for candidates

31 Ibid.
for supervision. The trainees, when confronted with the complex responsibilities of the job, should be able to decide more easily whether or not they still want to be supervisors. At this point in the program, the trainees should be told (as was done at Plant #51) that if they feel the responsibilities are too great or not worth the effort, they should withdraw from the class. It is also recommended that they be told that withdrawal does not affect his chances to be selected for the program at a later date, if he should change his mind at that time.

6. Using Staff Services

This is one topic which was not included in the pilot session. It is in accordance with the American Management survey of almost one hundred companies, which stated that the foreman must know how to utilize staff services in order to do his job properly. With such things as standards of performance, production quotas, requirements in the way of technical and human relations knowledge, government regulations and union practices, it is essential that the line supervisor have a knowledge of the benefits which he can derive by using the staff services available to him.32

The writer is of the opinion that a topic such as this is very beneficial in the program. It gives the trainee an opportunity to see the functions of each staff department, and is somewhat

reassuring in that he knows that expert advice and assistance is available to the foreman when needed, and that he is not left to "sink or swim" when complex problems arise.

7. Company Policies and Rules

Explaining the various rules and regulations of the Company to his employees is a responsibility of the foreman. It is important that he have a clear understanding of the rules. To many employees, he is the Company, and for this reason his actions should be in accordance with Company policy.

It is not expected that the trainees remember the rules in detail, but they should be made aware of why rules are necessary, and why the supervisor must understand them clearly.

8. Employee Benefit Plans

The importance of the line supervisor knowing the various benefit plans was stressed in the pilot session. However, it is recommended that the various details of the numerous plans be omitted from the lecture as adequate material is available for the trainees to read. A general knowledge of the various employee benefits would be sufficient.

9. Safety and Health Services

The topic of safety in the pilot session contained many of the recommendations set forth by Gray. It is a general conclusion

---

that the key man in any safety program is the foreman. Safety 
campaigns, posters, and inspections cannot take the place of the 
constant alertness of the foreman for the performance of unsafe 
acts and the existence of unsafe conditions. He is the only man 
who can successfully execute a safety program. For this reason, 
it is very important that the supervisor or supervisory candidate 
be properly trained in safety methods. The author contends that 
the subject of safety as presented in the pilot session was satis-
factory and offers no additional comments that could improve it.

10. Labor Relations Philosophy

With the development of unions and government legislation, the 
foreman's responsibilities and authority have had a changing 
nature. No longer can he discharge employees without consultation, 
recommend increases and promotion, have complete charge in 
disciplining his workers, or have the necessary final say in formal 
grievances.

It is important for the supervisor to be aware of the provisions 
of the union contract, various labor laws and the Company's 
philosophy on Labor Relations so that he may perform his job in 
accordance with Company Policy.

The program, as developed in the pilot session, is satisfactory 
and the writer has no additional comments.

---

3b "The Development of Foreman in Management", Research Report No. 7, 
pp. 24-25.
need of the supervisor. The session as established is of
general nature and emphasizes the relationships of Production,
Inventory and maintenance to each other. Such items as house-
keeping, care of tools and equipment, costs reduction methods, and
material scheduling are discussed.
The effects of human relations on Production, Inventory, and
Maintenance are stressed. This conforms to the findings of the
Institute of Social Research, University of Michigan, which showed
that departments showing the highest production were those where
the supervisors were more employee-centered than production-
centered.

The author is of the opinion that the topic is an important topic,
but that it must be kept on a general basis, avoiding many of the
technical problems which are too complex at this level of training.

H. Training and Job Instruction

One of the key responsibilities of a supervisor is training. It
requires thoroughness, ability to teach and to plan, technical
knowledge, and a basic understanding of the principles of learn-
ing, as well as individual differences. According to Halsey,
"the most important function of management is teaching. A super-
visor teaches in every phase of his work".

35 Halsey, pp. 9-10.
36 Halsey, p. 41.
37 Halsey, pp. 34-39.
The author is of the opinion that this phase is a "must" and that from his experience in the pilot session at Plant #51, one or two of the trainees in the class should be required to teach some simple operation in accordance with the principles of learning, the nature of work habits and the Four Step method of Job Instruction. Constructive criticism and analysis by the other trainees would then follow.

15. Handling Complaints

The handling of employees complaints calls for tact, fairness, understanding, emotional control, ability to explain and other human relation skills. It is at this point that the supervisor can stop a problem from growing into a formalized grievance. At Plant #51, the session was called "Handling Grievances". It has been changed to "Complaints" because grievances are oftentimes the cause of mishandled complaints, and the supervisor has much more control of "complaints".

The author feels that this is a very important session and recommends that active group discussion and role playing, emphasizing the human relations approach, be used as it was in the pilot session at Plant #51.

16. Maintaining Discipline

The manner in which the subject of Discipline was presented was excellent and the writer has no additional comments to improve its effectiveness.

---

Ibid.
17. Problem Cases

In the pilot session, one lecture was devoted to problem case discussions where the trainees applied the principles and techniques of the program to actual case problems. The merits of this session were easily seen. One soon became aware of the various attitudes and approaches of each trainee. From the results of this session, it was an obvious fact that additional training was required for many of the trainees. The writer therefore recommends that at least two sessions on problem solving be utilized so that the trainees can apply the principles and techniques more effectively and for the management observers to get a better look at the attitudes, interest, and problem solving abilities of each trainee. It is recommended that all the members of the Committee attend these sessions for evaluating the trainees.

18. Personal Planning

The Head Office Training Department has reduced the topic of personal planning to a very brief lecture, which is to be presented at the last class of the program. The writer agrees with this action, that the subject should be presented to the trainees for the purpose of acquainting them with the important role that proper personal planning plays in the daily responsibilities of the foreman.

19. On the Topics in General

In attempting to evaluate the program, the author looked to what other industries and training authorities have included as topics
for their supervisory and supervisory candidate training programs. In a publication put out by the Industrial Relations Associates of West Hartford, Connecticut, a statement was made that a supervisory training program should include Company Products and History, Organisation Chart, Company Rules and Regulations, Union Contract, Duties and Responsibilities, Job Instruction Training, Safety, Quality Control and Leadership Development. The Pre-Supervisory training program has covered all these topics.

Some topics are offered in the program but recommended for supervisory training by other industries are: Training in Conducting an Interview, Basic Economics, Understanding Our American Competitive System, Everyday Speaking and Writing, Communications, Logical Thinking, and so on.

The author is of the opinion that many of these courses have considerable merit, particularly Effective Speaking, Communications, and Logical Thinking. However, most of these courses, with the possible exception of Basic Economics, are more for supervisory training rather than supervisory candidate training. And because the program is established as a forty hour program, it is simply a matter of taking the best and most important training. The author contends that the topics selected for the program are sufficient because many of the topics not included will be given to

\[\text{Train-O-Gram, I (February, 1957).}\]
those trainees who are selected as supervisors through the plant Supervisory Development Program and in formalized Head Office Training Courses.

20. On the General Length of the Program

Based on the results of the three pilot sessions, the Head Office Training Department has established the program for forty hours. Based on the results of the sessions at Plant #51, the author contends that the program must have flexibility and that the length of the program, whether it be forty, fifty, or sixty hours, should be at the discretion of the local plants, if it is found that such extensions improve the program's effectiveness.

21. Follow-up on Program

Although the Company consistently stated that completion of the program does not guarantee a supervisory position, some of the trainees who know (from their own judgment) that they did well in the program will be highly motivated and will be looking for signs of recognition and opportunity. Plant #51 has taken steps to make known to the outstanding trainees that they are being considered for supervisory positions. The writer strongly believes that it is highly important that the Company follow up on this adequately either through advancement or future training. If it does not do this, the effect of the program will be to destroy the morale of the trainees and their associates. For this reason, the writer believes that the follow-up procedures of the program should be given as much consideration as the program itself.
BIBLIOGRAPHY

A. BOOKS


B. ARTICLES


Bayle, Barton, Supervisory Training Methods, (August, 1945), 6-10.


APPENDIX I

BIBLIOGRAPHY SUBMITTED TO THE TRAINEES
Bibliography

Unit One

Section I. INTRODUCTION TO PROGRAM

None

Section II. THE COMPANY WE WORK FOR

1. Company Fact Sheets: A-Growth and Structure Revision 3
   January 1955 B-Metal Container Manufacturing Industrial
   Relations Department E-Research and Engineering

   Anniversary
   Industrial Relations Department - 1956

3. Understanding and Using Staff Services - Line and Staff
   Training Division July 1953

Section III. COMPANY POLICIES

4. Continental's Eight Basic Policies
   Continental Can Company June 26, 1956 Carle G. Conway
   We've Got To Do Something About It To Make It Count

5. General Personnel Instructions B
   B-4.10.01 Employees Idea Plan Awards
   D-3.01.01 Employment of Minors
   D-3.04.01 Leave of Absence - Salaried Employees
   D-3.06.01 Length of Service Recognition
   D-4.01.02 Hourly Employees - Change Notice

6. Fair Labor Standards Act - As Amended 1-25-50
   U. S. Department of Labor

Section IV. EMPLOYEE BENEFIT PLANS

7. Your "Triple-C" Program of Protection
   Continental Can Company - October 1, 1955

8. Your Continental Can Company Pension Plan
   Continental Can Company - January 1, 1956

9. Administration Manual - Employees' Idea Plan
   Continental Can Company - April 1, 1953
Section V. FUNDAMENTAL OF MANAGEMENT

   Pgs. 47-62 "Authority and Responsibility"

Section IV. THE SUPERVISOR'S JOB

11. Position Analysis No. 2200
    Assistant Assembly Foreman
    Continental Can Company

Section VII. UNIT ONE SUMMARY

None

Section VIII. TRAINING EMPLOYEES

12. "That Critical First Day"
    Supervision Magazine March 1956
    Supervision Publishing Company, New York

13. "Synopsis of Training Activities"
    Continental Can Company, Inc. 1955

14. "The Supervisor's Role in Training"
    American Society of Training Directors Journal,

15. "Training Employees"
    by George D. Halsey
    Harper and Brothers, New York 1949

16. "Training Workers On The Job"
    Conference Number 10, Foreman's Management Conferences
    National Foremen's Institute, Deep River, Conn.

Section IX. JOB INSTRUCTION TRAINING

17. "Manual For Training Job Instructors"
    Continental Can Company, Inc. January 1953

Section X. SAFEGUARDING THE WORKER

18. "Industrial Accident Prevention"
    by H. W. Heinrich

19. General Personnel Instructions "B" Employee Relations
    B-5.01.01 Safety and Health
Section XI. CONTROLLING QUALITY

20. "Understanding Quality Control Methods"
    Continental Can Company, Inc. February 1953

Section XII. MAINTAINING DISCIPLINE

21. "Human Behavior in Industry" Pgs. 177-191
    by Finlay, Sartain and Tate

22. "How To Give A Constructive Reprimand"
    Supervision Magazine, August 1956
    Supervision Publishing Company, New York

Section XIII. PERSONAL PLANNING

23. "Personal Planning - Leader's Guide"
    Continental Can Company, February 1955

24. "Budgeting Time"
    Conference Number 9, Modern Industrial Leadership
    National Foremen's Institute, Deep River, Conn. 1945

Section XIV. SUMMARY

None
APPENDIX II

OUTLINE MATERIALS SUBMITTED TO THE TRAINEES
TABLE OF CONTENTS

OUTLINE MATERIALS

<table>
<thead>
<tr>
<th>TITLE OF TOPIC</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPANY WE WORK FOR</td>
<td>84</td>
</tr>
<tr>
<td>COMPANY POLICIES</td>
<td>88</td>
</tr>
<tr>
<td>EMPLOYEE BENEFIT PLANS</td>
<td>91</td>
</tr>
<tr>
<td>FUNDAMENTALS OF MANAGEMENT</td>
<td>94</td>
</tr>
<tr>
<td>SUPERVISORS JOB</td>
<td>95</td>
</tr>
<tr>
<td>TRAINING EMPLOYEES</td>
<td>97</td>
</tr>
<tr>
<td>JOB INSTRUCTION</td>
<td>101</td>
</tr>
<tr>
<td>SAFEGUARDING THE WORKER</td>
<td>105</td>
</tr>
<tr>
<td>CONTROLLING QUALITY</td>
<td>110</td>
</tr>
<tr>
<td>MAINTAINING DISCIPLINE</td>
<td>115</td>
</tr>
<tr>
<td>PERSONAL PLANNING</td>
<td>123</td>
</tr>
<tr>
<td>LABOR RELATIONS</td>
<td>127</td>
</tr>
<tr>
<td>HANDLING GRIEVANCES</td>
<td>133</td>
</tr>
<tr>
<td>HUMAN RELATIONS</td>
<td>138</td>
</tr>
<tr>
<td>PROFIT PLANNING</td>
<td>144</td>
</tr>
</tbody>
</table>
The Company "We Work For"

A. History

1. Organized in New Jersey (1904) by Edwin Norton who was the founder and first President of Canco.

2. In 1905, #1 Syracuse began operations. Our total sales was $688,000 for the year. Another plant was founded in Chicago that same year.

3. In 1912 - The Company's first general line plant was founded in Chicago.

4. 1913 - Company incorporated its present charter and name.

5. 1926 - Company purchased L.A. Can Company

6. 1930 - Company acquired a minority interest in the Metal Box Co., Ltd., the principal can manufacturing company of the British Isles. ("we now have similar interests in container companies in 18 different countries)

7. 1935 - Company purchased the Capital Stock of the "Hittal Can Co., Ltd. of Montreal - thus entering the Canadian market.


9. 1942 - Our first major step towards diversification, Company acquired the Fonda Container Company of Utica, N. Y., Paper and the Container Company of Van Wert, Ohio (Fibre drums)

10. 1944 - New sales record - $174 million.

11. Diversification continued with purchase of:

   (a) Mono-Service Co. (paper cups)
   (b) Owens-Illinois Can Co. (metal cans, steel pails, decorated kitchenware)
   (c) Cameron Can machinery.
   (d) Bond Crown & Cork (Crown cups and cork products)
   (e) Keystone Drum Company (Fibre drums)

12. Sales exceeded $200 million for the first time in 1945. Due, in part, to diversification.

13. 1947 - Company acquired Hummel-Ross Fibre Company (mfg. of Fibre drums and paper containers) This outfit operated a modern paper mill at Hopewell, Virginia and owned thousands of acres of pulp producing forest land.

14. 1953 - A big year for diversification. Company acquired:

   (a) Ben C. Betner Company (paper and laminated bags for coffee and other dry products)
   (b) Shellmar Products Corp. - Flexible package business (cellophane, polyethylene and other materials)
   (c) Elmer E. Mills Corps. (plastic products, "squeeze bottles" and plastic pipe)
   (d) Bowes Industries (plastic coated paper plates)
   (e) Pergra Containers Ltd. (Canadian paper milk container Company)

15. 1953 - Also a year for new developments.

   (a) Production of single wall paper cups on commercial basis
   (b) Soft drink cans introduced.
   (c) A "250" Fourdrinier paper making machine was installed at Hopewell, Virginia.
16. 1954 - More diversification. Company acquired:
   (a) American Paper Goods (paper cups, envelopes and bags)
   (b) Wallace Container Company (Vynite collapsible tubing)

17. 1954 - Major developments:
   (a) 1200 cpm closing machine
   (b) Solderless can for frozen juice concentrates
   (c) Plastic-lined crown caps

18. 1955 - Diversification - Company acquired:
   (a) White Cap Company of Chicago (vacuum sealed closures)

19. Recent Mergers:
   (a) Hazel Atlas - (glass containers)
   (b) Robert Cairn - corrugated shipping containers, cereal & soap powder boxes, egg cartons, beverage carriers, foil lined cartons, paper bags, wrapping & specialty papers.

B. Organization

1. Board of Directors - develop & govern the overall policies of the Company. Composed of 15 members elected by stockholders. They elect the President and Vice-President.

2. Two groups comprise the President's staff.
   (a) Staff Officers - each having a particular function such as finance, and technical development.
   (b) Line Officers - each responsible for a division in the Company.

3. Staff Officers now reporting to the President.
   (a) GM Industrial Engineer
   (b) Director of Technical Development (Responsible for research & engineering)

   1. Patent department Manager
   2. Construction Engineer, Div. GM
   3. GM, Central Research & Engineering Div.

   (c) GM, Industrial Relations
   1. Asst. GM - Responsible for Training, Organizational Development and College Recruitment
   2. Asst. GM - Responsible for publications, labor research and Salary Administration

   (d) Vice-President, Finance
   1. Treasurer and assistant to Vice-President. Also develops and follow-ups insurance program.
      (a) General Credit Manager and Asst. Treasurer
   2. Comptroller
   3. GM, Traffic
   4. GM, Purchasing

   (e) Secretary - Also responsible for Public Relations
   (f) Vice-President, Sales and is responsible for developing & maintaining efficient sales organization, establishing selling prices and terms, developing sales compensation plans, and evaluating and planning new product developments.

4. Line Officers now reporting to the President
   (a) Executive Vice-President - Metal Divisions. Under him are:
President of CCC Ltd. of Canada (responsible for both metal & paper operations of Canadian subsidiaries).

Group Vice-President, Non Metal Divisions
1. - V.P. Shellmar Betmar Div.
3. - V.P. Fibre Drum Div.
4. - V.P. Paper Container Div.

C. Products and Facilities

CCC employs 30,000 in over 90 plants throughout U.S., Canada and Cuba. Although 2/3 of personnel are employed in the manufacture of metal containers, CCC is also a leading manufacturer of fibre drums, paper cup and containers, paper bags, flexible packaging, steel pails and drums and household wares.

1. Metal Divisions
   Include manufacture of packers and general line cans, steel pails and drums, household (Decoware) and defense products. We have today, at least one plant within overnight shipping distance of every important food processing or manufacturing center.

   (a) Open Top Cans - Fruit and vegetable cans. Company's first product and ranks first in sales. Called packer's cans.

   (b) General Line Cans - More than 500 sizes and styles have been developed by the Company

   (c) Other Metal Containers - Steel drums, pails, Decoware.

   (d) Defense Products - Parts for B-47, B-52, and 52F-1 aircraft. Also tracking antenna and guided missiles.

   (e) Sales - 29 metal container sales offices in U.S.

   (f) Equipment Development - We produce almost all our own machines (excluding lithography) 4 plants - 2 in Chicago, 1 in Syracuse, 1 in Seattle.

   (g) Customer Equipment Service - provides expert engineering advice on plant construction and layout for customers and for closing machines.

   (h) Research - 17 field laboratories and representatives in various sales offices throughout the country.

2. Fibre Drum and Paper Container Manufacture

   (a) Five Fibre drum plants - 1500 employees

      #25 - Pittsburg, Cal.  #86 - Reading, Pa.
      #81 - Tonawanda, N. Y.  #93 - St. Louis, Mo.
      #83 - Van Wert, Ohio

   (b) 4 types of Drums manufactured

      1. Leverpak - has fibre sidewall & bottom with metal cover (for dry products 12-75 gals.)
      2. Stapak - has fibre sidewall with metal top & bottom (2-35 gal. size)
      3. Fibrepak - all fibre (3/4 to 67 gal. size)
      4. Upak - special all fibre with recessed ends used primarily for shipping rolled mats (cellophane, fabrus, film) are tailored in various heights and diameters.

   (c) Fibre drums are used for shipping chemicals, foods, petroleum products, abrasives, metal and metal products, dry colors, pigments and dies, rolled mats.

   (d) Six paper container plants in U.S., three in Canada, employing 1500 people producing hot drink cups, ice cream tubes, paper plates, envelopes and bars. #34 Hopewell has 300 employees and
(3) Crown & Cork Division
(a) 5 plants, 1000 employees
#15 Pittsburgh
#82 New Orleans
#80 Milwaukee (Conolite)
(b) Metal used in Crowns is usually 1/4 "tinplate
Cork is imported from Mediterranean
50 million units made each year in U.S. - Most lithographed.
Now we have plastic to replace the cork.
Also produces: bulletin boards, liners, tubing, highway expansion joints.
(c) Plastic Container Plants
#82 Hillsplastic
#15 Santa Ana, Cal.
) Produces flexible bottles, tubes,
) Pipes and tubings
(b) Shellmar-Bettner Flexible Packaging Division -
(a) 1700 Employees, 27 sales offices
#26 Mt. Vernon
#36 South Gate, Calif.
#59 Columbus, Ga.
) Produces flexible packaging
#106 Beaumont, Texas
#109 Roosevelt, N. J.
#111 Newark, N. J.
) Packages such items as margarine, gum, bread and baking goods, potato
chips, produce, dairy products, film, tobacco, flour, coffee, frozen
foods, candy and meat.

(5) Recent Mergers
(a) Hazel Atlas - 14 plants, most is East and Midwest, one in Hayward, Calif.
In 1953 - had $80 million sales
(b) Robert Gair - largest merger in CCC history - has 40 plants in 33 cities,
employs 11,500 - Sales in 55 exceeded $160 million

New Group - called Glass & Plastic which includes -
Continental's Eight (8) Basic Policies

- are grounded on the principle that "Justice shall be our basis for building broader character as individuals and broader business as an institution". Continental must:

1. Provide opportunity for personal growth.
2. Assure each employee of the right to appeal decisions of his immediate supervisor.
3. Keep employees informed on policies and procedures.
4. Protect the safety, health and well-being of employees.
5. Maintain a sound wage and salary structure.
6. Develop supervisory leadership.
7. Develop management ability.
8. Keep the organization virile and progressive.

II. COMPANY POLICIES

A. Employment

1. Hiring - Company forbids anyone less than 16. Fair Labor Standard Act prohibits hiring employees 16 years old, or hiring employees 16 and 17 for any hazardous occupation. Walsh Healy Act - applies to locations where work for government contract of $10,000 or more are performed. Forbids employing males under 16 and females under 18. Supervisors have the right and responsibility to approve or reject any applicant proposed by Personnel and he must judge their fitness before the end of the probationary period.

2. Induction - Should inform employee on Company history, rules and regulations, products, major operations, wages and hours, safety regulations, plant services, employee benefits, idea plan, personal and recreational opportunities, union regulations, parking, vacations, absenteeism, etc.

3. Transfers - Used during periods of low activity to avoid lay-off, used if a supervisor wants a man from another department (if other supervisor and employee agree) and used if employee desires transfer (if his original supervisor ok's it)

4. Leave of Absence - Due to illness or accident sustained outside of employment. Salaried employees shall receive payments based on their length of service (exclude pregnancy). If illness or accident is sustained in employment, the employee will get his full salary less Workmen's Compensation for six months before the case is submitted to the General Manager, Industrial Relations Department, for study.

5. Temporary Leave of Absence - For reasons other than sickness or accident, are discouraged by the Company. However, where good cause exists, 60 days without pay may be granted. When unusual circumstances occur, leave of absence with pay may be granted but not to exceed 30 days. For anything in excess of 30 days, the General Manager of Industrial Relations
6. Discharge - Avoid if possible, as it is costly to the Company.

7. Length of Service Recognition - from 5 to 50 years. 50 year award is "President's Award" - not to exceed $250.00.

B. Employee Activities

Improves communications between supervisors and employees and improves employee's morale, loyalty and interest in the Company. The Company has established an Employee Activity Fund which has $5.00 donated each year for each employee to sponsor social, recreational and athletic activities.

C. Idea Plan

Strictly a line organization program. Purpose is to reduce cost of operations, improve product quality, improve employee relations, improve safety conditions, uniform method of adding incentive to the interested employee, brings employees of unusual ability to management's attention. Local awards may be granted up to $250.00; Division awards up to $1,000; and National awards up to $10,000.00.
Exempt employees are an individual who is exempt from the overtime provisions of the wage hour law and may be worked over 40 hours a week without additional compensation.

Non-exempt must be paid in accordance with the provisions of the law, specifically time and one half or premium pay.

A. Restrictions covering exempt and non-exempt salaried (Procedures)

1. Merit Increases - Merit increases are to be granted within the established salary rate ranges and only in recognition of meritorious performance of duties. Merit increases may be granted any time during the year but generally are not to be granted at a more frequent interval than six months.

2. Promotional Increases - In general, the policy is to pay an employee, when promoted, a salary not less than the minimum of the approved range.

3. Hiring New Employees - The general practice is to hire new employees at the minimum of the salary range.

B. Overtime and Premium Pay for Non Organized, Non-Exempt Salaried Employees

1. Basis for payment.

(a) Time and one half for all hours worked over 8 in a weekday (Monday thru Fri.)

(b) Time and one half for all hours worked on Saturday, regardless of the number of hours worked in the previous 5 days.

(c) Double time for all hours worked on Sunday, regardless of the number of hours worked on the previous six days.

(d) Straight time and one quarter will be paid for the first 8 hours of work performed and two and one quarter times the straight time rate will be paid for hours worked beyond 8 on the following recognized holidays: 1. New Years Day 2. Good Friday 3. Memorial Day 4. Independence Day 5. Labor Day 6. Election Day (First Tuesday following the first Monday in November) 7. Thanksgiving Day 8. Christmas Day
The line supervisor should understand the general provisions of the employee benefit plans because it gives him the opportunity to understand his employees and gives the employees a chance to know him. Showing genuine interest in his people in this way gains their respect.

A. Group Insurance Plan includes

1. Life insurance for all employees presently employed with the company who have completed approximately 30 days of employment (herein called eligible employees). The amount of insurance to which each eligible employee is entitled shall be equal to double his annual base rate of pay with such pay reduced to the completed thousand dollars but subject to a minimum of $6000.

Thus if an eligible employee made a base pay of $4700 per year, his insurance will be double his pay taken to the completed thousand dollars which in this case is $4000 times 2 or $8000 of insurance.

2. Weekly Disability Benefits will be provided to eligible employees for cases of non-occupational injury or illness ranging from a minimum amount of $40.00 to a maximum of $55.00

If disablement occurs while the employee is on the job he will receive the difference between the amount entitled to him if such accident were non-occupational and that provided him under workman's compensations.

3. Daily Hospital Benefits

Full reimbursement for semi-private accommodations up to $15.00 a day for a private room. Maximum payment period of 120 days.

4. Hospital Special Service Charges (Ambulance, Dressings, blood transfusions, etc.) Full reimbursement during time daily hospital benefits are payable.

5. Surgical Operations

Amount of reimbursement is based on the type of operation with the maximum payment of $300.00

6. Maternity Benefits

A. Female employees - will get 6 weeks weekly health and accident benefit plus all the daily hospital charges, etc. outlined above. Delivery fees for normal delivery is now $90.00

B. Wives of male employees - will get the same as a female employee except no weekly benefits are payable.
B. Workman's Compensation - based on theory that the risk of economic loss thru personal injury in the case of employment should be borne by the Industry as a cost of production.

Before workman's compensation laws, the injured worker had to sue the employer for damages and had to prove negligence on the employee's part. The court remedy was slow, costly and uncertain. At the turn of the century, industry expanded greatly and the number of industrial accidents and personal injury suits increased. The common law principles of the time were too harsh on the employee and between 1900 and 1910, many states ruled that the employee did not assume the risk of employment. In 1911, first U.C. law went into effect. Now, regardless who is at fault, W.C. objectives are to help the injured employee and his family during a time of economic stress. The normal W.C. weekly benefit is around $28.00. The employer foots the bill as a cost of production and the program is administered by a commission under the State Department of Labor.

C. Vacation Plan - The company recognizes the benefits to be derived by its employees thru a period of rest and change and it is the conviction that such vacations should be taken.

Hourly employee vacations are established through the contractual agreements between the union and the company. Generally speaking, an hourly employee is entitled to a weeks vacation after one year of service, 2 weeks with 3 years, 3 weeks with 15 years, and 4 weeks with 25 years. There is a slight deviation with organized salaried employees. They receive 3 weeks after 12 years and 20 hours additional pay from 6-12 years. Non organized employees vacation periods generally are the same as the organized.

D. Pension Plans - There are 3 basic plans.

1. For hourly rated and salaried (organized) employees -

   Eligibility - All employees who bargaining unit have signed an agreement with the company, provided such employees have completed 15 years of service by retirement.

   Amt. of Benefit = $2.50 for each year of service with the company. Thus, if an employee has 30 years of service, his pension will be $75.00 plus his Social Security Benefit.

2. For Non-Organized Salaried Employees

   Benefits are approximately the same as for organized employees all non-organized salaried employees are eligible.
3. Supplemental Pension Plan for non-organized salaried employees whose base annual earnings exceed $4,800.

Each employee eligible may join the plan by contributing 5% of his monthly salary in excess of $400.

His benefits will be 3/4% of his salary in excess of $400 for each year of service under the plan.

E. Sub Plan -

Is intended to supplement State Unemployment Benefits to help each employee and his family when he is laid off thru no fault of his own.

Weekly base benefits vary from $31. to $51. dependent on the employees earnings. In addition, it provides $2 a week for each department up to 4. Averaging about 65% of a mans pay in most cases. In general, the employee is entitled to one week of sub benefits for every 2 weeks of work, up to a maximum benefit period of 52 weeks.

An employee, to be eligible, must have 3 years of service, and $500 credited his with 3000 of them in the last 36 months. There is a 7 day waiting period before benefits commence. The state unemployment benefit is a basic part of the Sub Plan.

The numerous details of each of the above plans have forced us to give you a very rough analysis of them. If you desire more specific information on them, pamphlets are available for you at the Personnel Office.
A. Management’s Responsibilities — Each member of management must be able to:

1. Manage people and be responsible for their production performance.
2. Delegate authority to other employees in order to discharge his responsibilities effectively. However, he is always held responsible for any actions of those employees under his jurisdiction. Managers have authority delegated to them, responsibilities exacted from them, and duties assigned to them.
3. Coordinate and control activities. Lack of this would lead to inefficiency (i.e., duplication of effort, unnecessary work done, waste of materials, etc.).
4. Make the most effective use of capital. Top management decisions affecting capital can be exemplified in expansion of Company facilities, diversification of products, and Company policies or changes thereof.
5. Make the most effective use of labor. He must decide on the number of employees required on various operations, and the type of skills required to do the job.
6. Route and schedule materials and products (overlaps with #3 Coordinating Activities). Specifically, this infers that he must schedule his production and route the transport of his products in the most economic manner feasible. In addition, he must schedule his raw materials and supplies in the most economic way, so that expensive warehousing problems are at a minimum.
7. Plan — This insures effective coordination, routing, scheduling, and effective use of labor and capital.
8. Constantly be aware of Research Activities which will improve work and manufacturing methods, as well as product improvements to maintain the Company’s ability to successfully compete with its competitors.

B. What Does Top Management Expect of the Supervisor?

1. Loyalty to the Company, his boss, and his subordinates.
2. Enthusiasm for his job (which is transmitted to his subordinates).
3. Ability to discharge his responsibilities with the minimum of assistance or "pushing" from his boss. He should, of course, discuss problems beyond his area of responsibility with his boss and he should seek the advice of the Staff Personnel, whose primary function is to lend him assistance. Staff assistance is not to be deemed as authoritative, and the Supervisor is held responsible for his actions, whether such action was Staff recommended or not.
4. Ability to arrive at sound, effective decisions based on his knowledge of the facts of the problem, the factors involved in the problem and its solution, and on the importance of timing his actions correctly.
5. Ability to lead people effectively.
6. Ability to work with other members of management.
7. Sufficient imagination to effectively discharge his responsibilities.
8. Familiarity with Company policy and philosophy.
10. Planning ability — from a day to day basis all the way to long range
C. The Supervisor is Management.

1. Each Supervisor has the same kind of responsibilities as the top executives of the Company. The primary difference lies in the amount, rather than the kind.

2. A "Supervisor" is defined as a member of management in the Labor-Management Relations Act, and it affects the Supervisor in his conduct towards Unions and Union members.

3. To the individual employee, the Supervisor represents management and even the Company as a whole.

VI. THE SUPERVISOR'S JOB

A. Position Analysis - Each Supervisory position in the Company structure has been studied and outlined. This outline is called a "Position Analysis" and it describes the Supervisor's basis function in his position giving what his function is and why it is performed. Secondary functions are not included. The position is then analyzed for the major responsibilities on parts of the job. The Position Analysis is not expected to cover every aspect of the Supervisor's job, but is a concise outline of the primary functions and relationships (title of positions directly supervised, number of employees indirectly supervised and immediate Supervisor's title.)

B. Position Analysis of an Assistant Foreman.

1. Basis function - assist immediate supervisor in his duties.

2. Relationships - Direct supervision over employees assigned to him by his immediate boss.

3. Major responsibilities -

   (a) Employee Relations - He must be able to apply Company employee relations in his dealings with those under his supervision, be familiar with the Unions' Agreements as they affect his employees, assist his immediate supervisor in assigning work for various employees, analyze the performance and capabilities of his employees, instruct his employees on safety and housekeeping practices, and confer with employees or their representatives in handling employee relations problems.

   (b) Maintenance - His key duties involve maintaining good housekeeping conditions, supervise assigned personnel in check maintenance procedures, correct and follow up on instances of incorrect maintenance and review with immediate Supervisor any maintenance or repair problems to correct the situations.

   (c) Quality - The Assistant Foreman must instill "quality consciousness" into his employees, review his schedule in consideration of quality specifications, determine if materials used are in conformance with product specifications, supervise assigned personnel in checking equipment to insure the product meets quality standards and inspect operators frequently to maintain such standards, and work hand in hand with those of Quality Control so
cooperation and understanding of each one's problems can be accomplished.

(d) Production - He reviews schedules with his immediate boss to plan sequence of operations and assignment of work load to meet operations. Allocates employees properly to insure the most effective utilization of manpower. Supervises routine changeovers or set-ups. Anticipates and/or determines causes for failure to meet schedules and corrects. Is on the alert for methods of improving production. Requisitions necessary materials and supplies to conform with product specifications. Maintains records of production and spoilage.

(e) Inventory - The key duties involved are developing effective procedures for receiving, handling, and storing inventories, supervising personnel in the proper manner of handling materials and finished products assigned in operations, inspect handling and storing procedures in accordance with good housekeeping, quality, and safety, and insure that the inventory reports are accurate.

(f) Costs - Maintain a "cost-conscious" attitude throughout the department, determine where losses from work orders and spoilage reports are occurring and determine the causes and apply corrective measures, and assist the immediate boss in the adoption of new and/or improved methods for obtaining a more economical use of equipment, materials, and manpower as well as reviewing maintenance cost estimates to verify their accuracy and equitability.

C. An Overall View of the Position Analysis - which indicates that:

1. The Supervisor is responsible for managing his assignments, in the same way that an owner manages his enterprise.

2. The areas for which a Supervisor is responsible are for broader and much different than the areas that hourly employees are responsible.

3. All or nearly all of a Supervisor's duties involve men. Because of this, a Supervisor must understand human behavior and differences in individuals, and must utilize this knowledge in carrying out each of his assigned responsibilities.
A modern industrial organization must be constantly forging ahead. To maintain its "status quo" is actually regressing and will result in a company's ultimate ruin. In order to be constantly progressing, management must accept new ideas and improved methods, and to obtain these new ideas, management must turn to a more and more intensive system of employee training, using more effectively present employees today and developing them for bigger and newer job tomorrow.

Definition of Employee Training

It is the process of aiding employees to gain effectiveness in their present or future work, through the development of appropriate habits of thought and action, skills, knowledge and attitudes.

A. A "process of aiding employees" implies that training is a two-way process in that it requires an interested response and active participation on the part of the learner. It cannot be merely administered or injected into the employee.

B. "To gain effectiveness in their present or future work" - is accomplished through the improvement of knowledge, skills, habits, and attitudes.

From Management's viewpoint, skills are shortcuts in performing work; they eliminate the necessity of repeating instructions, increase work accuracy, conserve the employee's energy and increase productivity. The skills, knowledge and attitudes developed through training help the employee to do his job better and results in:

- Increasing output and safety
- Better quality
- Good work with less supervision
- More opportunity for personal growth

C. Training goes on continually. It occurs everyday when an employee comes in contact with his supervisor or one of his fellow employees, and it occurs when instructions are "passed on" from one person to another - individually, or in a group basis.

D. There is never a situation of "no training". The training may be good or bad, but nevertheless it is still training. Management must see that only "good" training is employed.

E. Management has developed training activities to provide the "good" training which develops skills, knowledge, and attitudes.

It is no longer an art, but a science and is now less dependent upon individual instruction. It is more and more subject to orderly method and predictable results in that the basic psychological laws of learning have been developed and applied successfully. The use of Conference procedures has been proven to be a good training device and has become...
II. Continental's Formal Training Programs

1. Induction Training - usually conducted by the Industrial Relations Dept.
2. Pre-Job Training - usually conducted by the Department Head, Foreman, or Job Instructor.
3. Job Training - for unskilled and semi-skilled operations. Involves actual training of an employee to do a certain job. Usually conducted by Plant or Job Instructor.
4. Apprentice Training - usually conducted as "on-the-job" training in the plant while the apprentice attends class during non-working hours. An example is a "Journeyman Apprentice".
5. Job Instructor Training - Usually conducted by the Plant Instructor.
6. Equipment Maintenance Training - involves training an experienced employee in the fundamentals of equipment maintenance. Usually conducted by the Plant Instructor or Foreman.
7. Safety and Protection Training - Usually conducted in the form of periodic committee meetings and plant inspections. Train both foremen and employees.
8. Instructor Training - Usually conducted in an Instructor's Institute. Trains job instructors to handle formal plant-wide training programs.
9. Supervisory Training in Plant. - Train foremen and key Staff employees to improve their supervisory effectiveness for the present and future. Usually conducted at the Local level as Staff meetings.
10. Supervisory Training Program - Usually formalized on a pre-determined schedule.
11. Job Rotation Training - Trains individuals in various phases of Company operations. Usually conducted on an informal basis, having individuals assume Staff responsibilities in various departments for specified periods.
12. Management Training Programs - Training of individuals for positions above the foreman level. Usually conducted as formalized training. Courses involve managerial functions, technical knowledge and responsibilities.

I. Role of the Supervisor in Training Employees.

A. The most important function of Management is teaching. A Supervisor teaches in every phase of his work and gets real assistance from his people.

B. National Foreman's Institute - Top Management does a great deal of teaching on the job in the instructions which it gives its subordinates. Teaching, one of the most important functions of the foreman. Foreman tells the worker what to do. It is, therefore, logical that he tells him how to do it. Many foremen list training as their most difficult responsibility. They try to avoid it because they don't know where to begin or how to carry the program to completion. But these foremen only think they are not teaching. Correcting mistakes in wrongly timed teaching, but teaching nevertheless. In order to build and maintain a first class department, the foreman must develop the ability to take the time to be a good instructor.
Thus, the Supervisor in Modern Industry is first and foremost an INSTRUCTOR.

1. He breaks in new or transferred employees.
2. He tells group what to do.
3. He provides assistance and direction in changing to new or expanded operations.
4. He motivates subordinates to put their knowledge to work.

Average foreman spends 80% of his day with his employees and 20% of his work in his office. At least half of this 80% is spent in issuing instructions and coaching his employees.

The progressive Supervisor knows that training never stops. When an employee has mastered one job, the Supervisor should help prepare the employee for another.

The Supervisor must continually look for and recognize the need for training in his work group. He must know where to look, what to look for, and must prepare a definite plan of action.

Training gives the Supervisor a good opportunity to "Sell the Worker" on his job and his Supervisor. It gives the employee a feeling of self-respect and importance, thus whets his appetite to learn.

Training also makes the Supervisor's Attitudes show. Attitudes are transferred from the trainer to the trainee, whether intended or not, and the trainer must therefore bring these attitudes and convictions into harmony with Company policies and objectives. The learner can easily see if his instructor is "sold" on the importance of training and this will be shown in the learner's cooperation and willingness to "Stay with it".

Induction Training

Induction begins long before an employee first punches a time clock, and continues until he has mastered his first job, and made the "regular team". As a Supervisor, remember that "first impressions are lasting".

During the induction period the new employee is "green" and sensitive. He is anxious to find a job, to learn new ways and do well. Everything is new and strange to him. He is humble and intensively grateful for a show of interest, a word of encouragement, a helping hand.

The chief purpose of induction is to help the new employee achieve a successful adjustment to his job and his surroundings. To do this, we must help him acquire the general information he needs to learn his job and help him acquire an attitude that will make him want to do it well, because a good attitude governs an employee's efforts.
C. Activities a Foreman Carries Out in Induction.

1. Follows up Personnel Dept by explaining the Company's Industrial Relations Policies and its Welfare plans.
2. Makes Departmental tours as complete as possible.
3. Introduces employee to his fellow employees.
4. Introduces employee to Company Safety Rules, Absenteeism and Tardiness Policies, Housekeeping Regulations, etc.
5. Tell him of his opportunities, duties and responsibilities.

Pre-Job Training

A. Describes the training of new employees away from the production line. It is concerned with equipping the new hire with the knowledge necessary to perform one phase of a trade and includes safety, quality and other production considerations such as spoilage, good work habits, etc.

B. A sound program of pre-job training provides many dividends to Supervisors and employees. It gives the employee a "fair break" in learning his new job and helps to dispel his initial fears of the job; while the Supervisor reaps the benefits of the new hires progress and new found ability by obtaining good work attitudes and habits, and reduction in turnover ratios.

C. The Supervisor is the key man in developing and carrying out a sound pre-job training program. It is his responsibility to develop the program, see that adequate facilities are available and used and provide sufficient alternate Job Instructors to do the training.

D. In planning and preparing for Pre-Job Training, the Supervisor must:

1. List all the jobs in the department.
2. Make job breakdown outline for each job.
3. Select instructors and assign them.
4. Have substitute instructors.
5. Have records and follow-up procedures.

E. Thus the Supervisor must be able to effectively organize, deputize and supervise if his training is to have satisfactory results.
JOB INSTRUCTION

I. The Learning Process

1. Basic Laws of Learning - Provide a basis for the more specific principles of learning.

   a. Law of Readiness - when we have a favorable attitude towards learning, we are in a state of readiness to learn.

   b. Law of Effect - A learner wants to continue to learn because he gets a feeling of satisfaction from past success and accomplishment.

   c. Law of Exercise - We tend to repeat experiences that are satisfying and the more often the act is repeated correctly, the easier it can be done.


   a. We learn best when we are ready to learn. Thus, when we are strong in purpose, highly interested to learn, and make a conscious effort to learn, we learn more completely and effectively.

   b. We retain our learning better if we are satisfied with what we have accomplished, and the things we have learned are both useful and beneficial to us. In addition, we are generally motivated to learn more.

   c. Learning new material is made easier if it can be built on something we already know. The learner is greatly assisted in learning if the instructor uses analogies, makes applications, and relates the instruction to other fields.

   d. Learning has to be accomplished step by step. New material must be presented in an orderly manner and in units which appear natural and logical to the trainee if we are to apply new material based on things we already know (See Principle C above).

   e. The more often we use what we have learned, the better we can perform or understand it. Repetition brings about "habit", which is an automatic process.

   f. Learning takes place by doing. We must use the skills or new ideas received to complete the learning process. Without application of new learning, all is lost.
3. When is learning accomplished?

a. We have learned - When we are able to do something or understand something which we couldn't do or understand before. Merely telling an employee something does not mean that he has learned. He must be able to do or understand.


a. A Supervisor must know the nature of work habits and how they are built in order to train his men.

1. Habits are "the way we do things". Through repetition, a habit becomes an automatic activity without an employee having to stop and think about how to do it.

2. The worker must develop the habit himself, but under guidance, to correct any possible bad habit from developing.

b. The first step in learning a skilled action (habit) occurs when we receive a new impression through one or more of our five physical senses (sight, hearing, touch, taste, or smell). But if we can learn through more than one sense, we can remember better. Studies have shown that we remember 20% of what we hear, 30-50% of what we see, and 50-70% of what we hear and see. Because of this, ideas should be presented through as many of the senses as possible.

c. Once the learner has received a new impression, he must practice the skill as soon thereafter as possible until it becomes a habit.

1. Because first impression of a skill are most lasting and because mistaken ideas are very difficult to correct later, the first demonstration must be clear and accurate.

2. The sooner the learner practices the skill, the easier it will be to perform it correctly and the sooner it will become a habit.

3. It is important that the habit (skill) be done correctly the first time attempted and that the learner never deviate in his practice from his original attempt.

4. It is impossible to learn many skills at one time and it is best to divide a skilled job into groups of skills and learn one group at a time.

5. Individual Differences.

Individuals differ in their ability to learn and in their entire make-up because of differences in their heredity and environment. Heredity determines the physical and mental characteristics of an Individual. Environment determines the external conditions and influences affecting our lives. Such factors are:

a. Health, vision, strength
b. Age, tempo of movement
c. Restlessness, Emotional Stability
II. Continental's Job Instruction Program

1. Four Step Method - most accepted method of instructing an employee on a job. It is an outgrowth of the Job Instructor Training Program used in World War II. The four steps are:

   a. Preparation
   b. Presentation
   c. Try-out performance
   d. Follow-up

2. What must a Supervisor know in order to carefully plan a job instruction session?

   b. How to instruct.
   c. Supervision and follow-up.
   d. How to break down the job, Key points.
   e. Steps in Job Instruction.
   f. Safety and shop housekeeping.
   g. Individual differences.

3. What must he do?

   a. He must plan the steps in teaching a job to an employee.
   b. He must analyze job and decide on the best approach.
   c. He should break the job into steps, teaching the easier operations first.

4. Planning job instruction is highly important. Why?

   a. It will make instruction more successful in saving time and money.
   b. It helps build employee morale.

5. How would you get ready to instruct?

   a. Have a time table. Figure out how much skill you expect the learner to have at a certain time.
   b. Break down the job. List the important steps and key points.
   d. Have the work place properly arranged.


   A. Prepare the employee.

      1. Put him at ease—tenseness is a barrier to effective learning.
      2. Tell him what the job is.
      3. Find out what he knows of the job.
      4. Emphasize the importance of the job—create desire to learn.
B. Present the operation

1. Go from the known to the unknown. Start with the simple and proceed to the more complex.
2. Make a job breakdown. Tell, show, and illustrate one step at a time. Stress key points.
3. Tie all the steps together. Give him a dovetailed picture of the job.
4. Tell the why behind things. Make it understandable.
5. First tell the employee then show him.
6. Have the employee explain the job in his own words.
7. Be clear, complete, and patient in your instruction.

C. Try-Out Performance.

1. Have the trainee do the job - correct errors.
2. Have him explain the what and why. Make sure he understands.
3. Continue until you know that he knows.
4. Encourage him in his performance.

D. Follow-Up

1. Put him on his own.
2. Designate someone who he may go to for help.
3. Check frequently to see that he doesn't pick up any incorrect ways to do the job.
4. Compliment him on his good work, encourage him to ask questions, re-instruct him on any weak points.
5. Appraise good points, rather than "nag" on bad points.
6. Taper off supervisory instructions and be more critical as time goes by.

7. What are the qualities of a good instructor?

A. He must have a desire to serve others. He must have their interest at heart.
B. This interest must be deep and genuine— it must inspire and motivate the trainee.
C. He must be a realist— recognize individual differences and act accordingly.
A Look At Our Safety Program

A. Activities Set Up to Safeguard the Worker

1. Periodic Meetings

(a) Foreman's Safety Committee - discusses general safety problems, learn new safety techniques and realize safety responsibilities.
(b) Workman's Safety Committee - learn basic principles of safety, realize their own responsibilities, and report general safety problems.
(c) Plant Protection Committee - learn fire prevention principles and basic fire fighting techniques. Report hazards and problems.
(d) Manager's Staff - discuss new procedures, regulations, and timely safety and fire problems. Coordinate Safety Program.

2. Periodic Inspections

(a) Plant Safety & Housekeeping - Investigate working conditions and practices. Report any hazards and help set standards.
(b) Insurance Carrier Engineers - Inspect conditions and practices, recommend safety improvements and present new technique and procedures.
(c) Government Agency Inspectors - Inspect conditions and practices and establish safety standards.
(d) Division Training Supervisors - Inspect conditions and practices and communicate management policies.

3. Safety Promotion

(a) Safety Posters and Charts - promote safety attitude, present specific accident hazards as well as safety rules and methods.
(b) Plant Magazine Article - discusses timely safety problems.
(c) Accident Prevention Contests - creates safety competition.

4. Others

(a) Safety Equipment Design
(b) Job Breakdown Safety Tips
(c) Protective Equipment
(d) Foreman's Personal Contact Program
B. Why Does Management Attempt to Safeguard the Worker?

It is management's moral responsibility to prevent any pain and suffering to its personnel both on a physical and financial (loss of income as a result of the injury) basis. It is also management's economic responsibility to reduce the cost of insurance rates and to eliminate costly delays in production following any personal injury. Both the moral and economic responsibilities are equally important. The benefits derived from a good safety program exceed the cost of the program.

II. An Effective Accident Prevention Program Is Both Necessary And Worthwhile. It Pays Both In Economic and Humanitarian Terms.

A. Economically - Our actual experience has resulted in a return insurance premium of $80,000 each year for the last three years. Our experience was far below the average experience for the can manufacturing industry. In addition to this, one must also consider the "invisible" or "indirect" costs that accidents inflict on production. Some of these invisible costs are:

1. Lost production due to idle equipment.
2. Repairs to Machinery.
4. Time lost by other employees assisting the injured employee.
5. Time lost by the Supervisor in investigation, reports, etc.
7. Cost of training a replacement for the injured employee.

A study has shown that these invisible costs average about four times the visible costs. The Company's total cost of accidents from 1953-55 amounted to over 7 million dollars.

B. Humanitarian - The fewer the injuries, the less suffering and anxiety our employees have, and the more happy and healthy are the employees, the union and management.

C. Other Benefits Derived From a Sound Accident Prevention Program.

1. Good Public Relations - Public realizes is Company is concerned over employee welfare.
2. Most people desire to work in a safe place. A good selling point in interviewing desirable applicants.
3. Good Housekeeping plays a vital role in product quality.

D. What Is The Disabling Injury Frequency Rate?

It is a measure of the effectiveness of accident prevention work and is based on the number of disabling or lost time injuries for every million man hours worked. For example: a plant of 1000 employees will work about one million man hours in 6 months. If the frequency rate was 10, the plant would have had 10 disabling injuries in said 6 months. The Company's rate has improved from 14.5 in 1946 to 4.9 in 1955 for a 66% improvement. In 1956, our rate hit an all time low of 4.6.
III. Who Is Responsible for Safeguarding the Worker?

A. Many People — but the foreman is the key man.

1. Top Management — has the responsibility to approve sanction, and support the Safety Program. It must give safety direction and meaning and must support it.

2. Each Worker — by having a proper attitude towards his job and his fellow employees. He must practice good housekeeping, serve on safety committees, and make recommendations to line management.

3. Safety Engineer, Personnel Supervisor and other Staff Specialists also share responsibility for Safety. They promote safety, coordinate committee activities, and make recommendations to line management.

4. Line Supervisor — He is morally responsible for the safety of his men and bears all the delegated responsibilities that are passed down from above.

B. The Only Way Management Can Discharge Its Safety Responsibilities Is Through the Cooperation of its Supervisors.

The Supervisor must assume responsibility for safeguarding the safety and health of his men on the job. This is a very important and practical part of his job. Just as he maintains his equipment in working order, he must keep his men fit to work. The foreman is considered the key man in safeguarding the worker because:

1. He is close to him.

2. He stands between management and the workers; issuing, interpreting, and enforcing orders and carrying out Company policies.

3. He has leadership qualities and is in a good spot to win the workers' respect and confidence for both himself and management.

4. He has the best opportunity in controlling environment and knows best what operations cause injuries and can correct work situations speedily.

C. A Good Safety Record Brings The Foreman Many Benefits.

To have a good record, he must have good cooperation, maintain proper discipline and not waste Company resources in his department. His correction of safety hazards before an injury occurs results in reduced cost of operations, and improved quality and quantity of production.

IV. The Supervisor's Plan of Action

A. Safety is basically keeping one's self and others safe from accidents and disease. Safety includes accident prevention, promotion, and education and puts emphasis on the human being in Industry—where it rightfully belongs, rather than on machines and equipment.
1. Two Approaches To Safety

(a) Immediate - the direct control of personal performance and environment. The use of protective devices for both machinery and the worker play a part here.

(b) Long Range - Involves the training and educating of each person in the safe way to do the job. Each employee should be trained in the development of a safe attitude towards his job. Safety is first and last, a matter of training and unless each one is actively concerned to prevent accidents, all guards and safety rules made available will not be sufficient.

B. An effective Safety Program requires a well-balanced plan of action that takes both the Immediate and Long Range approaches. Such a Plan is referred to as the three "E's" of Safety. It consists of:

1. Engineering - that develop perfect safety devices and methods.
2. Enforcement - of Safety regulations.
3. Education - of each employee on housekeeping and other safe practices.

V. Continental's Accident Prevention Program Is Set Up to Reduce Injuries and Control Accidents.

A. To do this, we have established a definite policy that includes:

1. Full support and active participation of top management.
2. A sound medical program at each plant - pre-employment physicals.
3. Job Safety Training for new hires, and sustained re-training of all employees.
4. Maintenance and use of complete accident analysis data.
5. Investigation of accident causes.
6. Correction of hazards and improper work methods through accident analysis and hazards surveys.
7. An Industrial Hygiene Control Program.
8. Regular Safety Meetings and personal contact between the Supervisor and his employees.

VI. The Importance Of An Accident Lies In Its Potential To Create Injury - Not In Whether It Does Or Does Not Result In a Personal Injury.

A. Accident - an unplanned event or mishap which may or may not result in human injury and/or property damage. The lack of or degree of personal injury or property damage resulting from an accident is not pre-determined. It is usually a matter of luck. Thus, every accident may be a potential death case, and the prevention of an injury may begin with prevention of the accidents.
B. How would you prevent an Accident?

You must know the factors immediately preceding an accident. You must know of any potential unsafe acts and/or mechanical hazard, as well as the proximate reasons why these exist. Your corrective efforts should be directed first towards those items most easily and quickly corrected (this is usually mechanical or physical hazards rather than human faults).

C. Basis for most accidents is said to be man's failure that caused or permits unsafe acts of persons and/or unsafe mechanical or physical conditions. Man failure shows up in lack of knowledge, poor attitudes, lack of fitness or ability to do the job and do it safely. 96% of all industrial accidents are of the preventable type with 10% being caused by unsafe mechanical or physical conditions, thus giving 88% due to the unsafe acts of persons. This 88% does not include those unsafe acts which did not result in personal injury or property damage. Seeing that injury is a matter of luck, it is only proper that we attack not injury - but its source... accidents. Thus, in accident prevention work, the importance of any individual accident lies in its potentiality of creating injury. If we base lost time accidents only as a basis for study, our efforts will often be misdirected and valuable data will be ignored. By studying and analyzing all types of accidents possible, we can, through corrective actions, eliminate most major and minor injuries.

D. Another reason for investigating accidents causing minor injury and, if possible, no injury is that major injuries do not always depict major hazards. In the largest injury group, the minor injuries, lie the most valuable clues to accident causes.

VII. Supervisor Must Get His Employee's Cooperation To Have An Effective Safety Program.

A. Safety is an attitude - a way of life. It is "caught" not "taught". Consequently, the Supervisor must first believe in safety before he can teach it. So... if the Supervisor wants and insists on a safe department with safety conscious personnel, he will have it. He should demand cooperation. Because most safety violations occur through inadequate knowledge of what the safe way is, the Supervisor must teach each worker the safe way to do every job they must do, and to cooperate in the safety rules established.
I. History of Controlling Quality

A. Inspection

Prior to 1949, our Company maintained an Inspection Department which had the responsibility of checking quality level of production. Inspection consists of screening the items produced and comparing them with established standards, and is really a post-mortem operation which is costly in labor and materials. Since 1949 Continental established a more positive method of controlling quality — to work in the production process where the quality level is made or broken.

B. Quality Control Defined

Quality Control is control of the degree of quality of a product at the desired level that will conform to customer requirements. Today, our improved techniques and methods have increased the effectiveness of quality control methods to the point where positive control of quality is easily attained, provided proper action is taken by operating personnel.

II. The Supervisor's Responsibilities for Quality

A. MAINTENANCE OF QUALITY WORKMANSHIP

1. His main function is to see that work is done properly and standards of quality are lived up to. The more strict the Supervisor is in having his men live up to quality standards, the better his quality will be.

2. The only way the Company can check on the quality of workmanship of the employees is by placing responsibility for quality on the foreman.

3. It is the foreman's responsibility to impress each worker with his responsibility in performing his job in accordance with quality standards. The foreman must instruct his employees on quality and follow up on them to see that they are performing their job properly.

B. The Foreman must know and use the FACTORS WITHIN HIS CONTROL which affect quality. First thing he must do is analyze the fundamental factors affecting the problem of keeping quality workmanship high. These factors are:

1. The FOREMAN'S ATTITUDE - one of the most important factors affecting quality.

2. STANDARDS OF QUALITY must be high, but attainable.

3. ATTITUDE OF WORKERS THEMSELVES.
4. PROPER WORK PLANNING - gives employees an opportunity to do quality work.

5. Effect of WORKING CONDITIONS.

C. The Foreman must know HOW TO INTEREST THE WORKER in Quality.

1. He should stimulate his employee's pride in their work.

2. He should impress his men that doing quality work gives job security for themselves and the Company.

3. He should make sure each man understands his part in maintaining standards. "A product is only as strong as its weakest quality".

D. The Foreman must know the METHODS OF CONTROLLING QUALITY.

The success of Quality Control methods is very dependent upon the understanding and cooperation of the foreman and his workers.

II. Methods for Maintaining Quality.

A. Some important reasons for maintaining high quality are:

B. It is important then to have a system that will minimize production defects.

1. Will inspection be sufficient?

No. It does not really minimize production defects, but merely tends to limit the quantity of defective units sent to customers. Its primary design is to sort acceptable from non-acceptable production. Even if 100% inspection was tried, it would not be 100% effective because no matter how skilled an inspector might be, he is bound to tire and make errors in direct proportion to the length of time that he inspects.

C. Quality Control Provides Immediate Inspection of Material Produced "on the spot".

1. It is a preventive method of inspection-checks are placed at strategic points in the manufacturing process, where Quality is made or broken.
2. The Supervisor is thereby alerted to those specific operations that require attention to improve quality. He can then take immediate corrective action.

3. The importance of Quality is such that the Company has a special department to coordinate this activity.

4. Foreman is still responsible, however, He must assist his men in understanding their responsibility for Quality and help them interpret procedures.

IV. Understanding Quality Control Methods.

A. Machine Variation and Its Control.

It is impossible to manufacture items which are exactly alike due to machinery and material variables. If we take a large number of items produced, measure them and record them, we will find that they fall into a definite pattern of normal distribution, which statistically is called a BELL SHAPED CURVE. The spread of the curve indicates the amount of inherent variation existing in an operation.

B. Equipment Capability Studies - a means to measure normal machine variation.

1. Natural machine variation varies. It is different for machines of the same and similar type.

2. This variance must be measured so we know what the machine is capable of doing or what tolerances can be maintained. An EQUIPMENT CAPABILITY STUDY is a systematic sampling of the production of a machine in order to determine the range of variation. It determines if the machine is capable of producing within the specifications established to meet customer requirements.

C. Specifications Define the Limits Within An Operation Which Can Vary and Still Meet the Customer Requirements.

1. Specifications determine if the product is of good or bad quality.

2. Specifications are established on the basis of experience or on the result of experimental tests packs.

3. Specifications fall into 2 groups

   (a) Dimensional - that measured by a micrometer, dial indicator, etc.

   (b) Visual - Is not or cannot be measured. re-worm holes, locked side seams.
D. QUALITY SAMPLING

1. Sampling is done extensively and is a useful and constructive practice.

2. Sampling falls into 2 categories

   (a) Sampling by variables - for dimensional characteristics that are measurable (micrometer)
   (b) Sampling by attributes - characteristics that are measured visually. These are checked solely on a simple accept or reject basis.

3. Sampling can be either formal or informal in nature.

   (a) Informal - carried out by most people working around the plant.
   (b) Formal - regular inspectors at scheduled times for purposes of Quality Charting.

E. QUALITY CHARTING - a system used to keep track of the quality levels of various operations.

1. It was installed to standardize inspection procedures.

2. This method specifies the frequency for making checks, sample size to be examined, method of evaluation, and the form for recording the results.

3. CONTROL LIMITS are set just inside specification limits to serve as a warning signal that the production has some items which are getting close to the reject limits.

4. Quality Charting techniques require that inspection data be recorded on special forms.

F. CONTROL CHARTS give more critical indication of the status of the operation.

1. The individual measurements are averaged out and plotted on the control chart and build up a history of the production process which can be easily read.

2. Control limits indicate how the process is going.

3. If the average falls outside the limits, the process has gone out of control.

4. There are 2 types of Control Charts.

   (a) Average Control Chart
   (b) Range Control Chart
SPECIFICATIONS - what machine is designed to do.
LIMITS - what machine is actually capable of doing.

5. Control chart uncovers possible shifts in process averages or trends. In addition, they help avoid unnecessary adjustments because they distinguish between the shifts and natural variation.

6. Control charts are costly and are to be applied on key operations where the closest of control is essential.

The Supervisor's Role in Controlling Spoilage.

A. Spoilage is evident to some degree in every manufacturing activity.

1. In our Company, a certain amount of each department budget is allowed for spoilage. The budget is related to the department's production and varies directly to the variance in production. This relationship is of extreme importance because it determines if the Company is to make a profit or lose money in producing the cans.

B. Spoilage includes both materials and product lost during the production process and products found unusable by customers. The fight against spoilage begins when the raw materials are received and continues until the customer accepts the product. 50-70% of our spoilage is due to HUMAN ERROR. It is this area of human error that the foreman may directly improve quality and reduce spoilage.

C. To help reduce spoilage, the Supervisor must develop a systematic method to solve the problem.

1. A suggested method is:
   (a) Identify the problem area
   (b) Analyze the area and select the causes
   (c) Select an appropriate remedy
   (d) Apply the remedy - follow up.

2. Sources for the Foreman in identifying the area.
   (a) "Hold for Inspection" materials - gives reasons why certain materials were held from shipment.
   (b) The weekly or monthly Quality Summary - this shows the long run production and spoilage conditions and the types of spoilage frequency.
   (c) "Scrap collector's Reports" - records where it is removed from and what lines.
   (d) Quality Charting and Control Charting.
   (e) More frequent checks by maintenance.
What Do We Mean By Discipline?

A. Discipline is a method used in handling employees so that they will readily accept reasonable rules and regulations set up for the common good of all concerned. It is a form of training that corrects, molds, strengthens, or perfects. Using discipline as a means of blame and punishment is only a secondary and minor aspect. It is always to be thought of as a constructive measure (positive approach) rather than a corrective one (negative approach).

B. Advantages of constructive discipline.

1. The EMPLOYEE CAN LEARN from being disciplined and come to mend his ways.

2. It can SAVE WORKERS FROM DANGERS by setting up safe methods and requiring compliance to these methods.

3. It is a factor that AIDS IN INCREASING THE EMPLOYEE'S PRODUCTIVITY through his following the proper methods and habits.

C. Discipline also DETERS OTHERS from making similar mistakes while reforming the offender. Sometimes an individual, upon seeing that breaking a regulation would not be in the group's best interest, will SELF IMPOSE DISCIPLINE upon himself and conform to the regulations. Self-imposed discipline has tremendous importance because it reduces the need for enforced discipline and prevents many potential disciplinary problems.

D. Discipline has even more potential benefits for the Supervisor and Workers.

1. It builds character.
2. It molds men's minds - the undisciplined mind is a dangerous machine in any work where speed and precision are imperative. The supervisor who permits workers to form faulty mental attitudes is guilty of gross negligence.
3. It encourages good conduct.
4. It emphasizes right habits - which are necessary to every employee.
5. It promotes efficiency. Bad work habits and poor discipline are foes to successful accomplishments.
6. It increases good will. Fair and equitable discipline procedures brings about employee good will through stability and order.
7. It maintains respect. The supervisor who is careless and indifferent about discipline will soon lose the respect of his workers.
8. It leads to self mastery, of one's temperament and emotions.
II. Cause And Symptoms of Disciplinary Problems

A. Basic Causes.

1. Lack of proper supervision.
2. Differences in people.
3. Over-critical attitude by the supervisor can cause resentment and lack of desire to follow regulations.
4. Uneven Job Knowledge. Better trained employees can acquire a superior attitude regarding their lesser trained co-workers which can cause resentment.
5. Unusual Personal Factors—such as physical handicaps, emotional disturbances, or personal problems.

B. Behavior or Attitudes Requiring Disciplinary Action.

1. Some of these are:

2. These behaviors or attitudes fall into the following groups:

   (a) Those causing spoilage, waste, and poor production results.
   (b) Those creating mistakes in "ways of working" or operating machinery.
   (c) Those that result in poor personal or group behavior (horseplay, tardiness, excessive absenteeism).

C. Methods of Disciplining workers.

1. Some of these methods are:

2. The use of any of these methods will depend on:

   (a) The supervisor's nature.
   (b) The seriousness of the infraction.
   (c) The type of employee involved.
   (d) The employee's relation to others in his group.
   (e) The cause of the problem.
   (f) Other variable factors.

A supervisor must look to the cause of an infraction before taking any corrective action.
III. Correcting or Improving Behavior or Attitudes

A. First - find the cause. Then select the corrective action. Carry it out and then follow it up.

1. What are some of the causes for excessive absenteeism?

2. Some corrective actions are:

3. What are some of the causes for disregard of Company rules and policies?

4. Some of the possible corrective actions are:

5. Causes of the chronic complainer?
6. Some corrective actions are:

7. Causes of habitual carelessness.

8. Some corrective actions are:


10. Some corrective actions are:

12. Some corrective actions are:

13. Causes for insubordination or disobedience.

14. Some corrective actions are:

15. Causes for Excessive Talking.
16. Some corrective actions are:

17. Causes for Soldering.

18. Some Corrective Actions are:


20. Some corrective actions are:
21. Causes for abuse of materials and equipment.

IV. Rules for Correcting and Disciplining Workers.

A. Some general principles.

1. USE POSITIVE DISCIPLINE FIRST - appealing to an employee's desire for praise and recognition can motivate him to do a good job and accept rules and instructions. Know and understand your employees.

2. Use negative discipline. ONLY AS A LAST RESORT.

3. BE FIRM AND CONSISTENT - do not display favoritism.

4. Start with the RIGHT ATTITUDE - recognize individual differences. Be willing to admit your mistakes. Approach corrective action in a problem solving attitude. Be fair and give people the benefit of a doubt.

5. LOOK BEHIND THE MISTAKE - find the cause and adopt your methods of correction to the individual.

B. How to give a Constructive Reprimand.

1. TEACH AS WELL AS TELL THE WORKER. A reprimand is an interview designed to bring about a change in the employee's attitude, habits, or work methods.

2. BE PREPARED FOR A DEFENSIVE REACTION - RESENTMENT.

3. BE SURE YOU HAVE THE STRAIGHT FACTS.

4. DON'T REPRIMAND IN PUBLIC.
6. DON'T DO ALL THE TALKING YOURSELF. Be a listener and show him you want to hear his side of the story.

7. DON'T BE LOUD OR HARSH—be courteous.

8. CORRECT EACH ERROR AS IT OCCURS. Don't wait until you have a dozen infractions.

9. CLEARLY STATE THE REASONS FOR THE REPRIMAND. Show the employee the cost of his errors to himself and the Company. Make sure the employee realizes there is nothing personal in the reprimand.

10. Criticize SPECIFIC ERRORS—don't generalize.

11. Don't use other workers as COMPARISONS.

12. Don't infer that their INTENTIONS AND MOTIVES ARE NOT RIGHT.

13. APPRAISE the employee's good points when criticizing a bad point.

14. SHOW THE WORKER HOW TO IMPROVE.

15. DO NOT BRING MATTER UP AGAIN after the reprimand has been given if the employee is trying to improve.

C. If the reprimand doesn't work, what action follows?

1. The employee may be DEMOTED or TRANSFERRED to a less desirable job. This may cause hard feelings and resentment.

2. DISCIPLINARY LAYOFF. This hurts the Company because it deprives itself of the services of a needed employee. It also may make a hero of the person instead of a rule-breaker.

3. DISCHARGE—last resort. State reason for discharge in writing for legal purposes.
THE SUPERVISOR'S ROLE IN PERSONAL PLANNING

I. "Personal Planning" - Defined

It is a technique used by a Supervisor to enable him to budget his time and activities in the most effective manner.

II. The Importance of Personal Planning to the Supervisor

1. It is a test of his leadership. By inadequate planning or direction, he deprives both the employees and the employer of their valuable resources.

2. It puts first things first. No part of his job must suffer because of special or unexpected demands made upon him. He must not delay one responsibility of equal importance to another responsibility.

3. It lets the workers know what is expected of them. When he plans his own work, he plans the work of his subordinates. Without planning, much time may be lost due to the employees not knowing all that is to be done.

4. It balances man power and machine power. He must be able to coordinate and integrate men and machines through adequate planning.

5. It enables him to accomplish more with greater ease.

III. Personal Planning is a Supervisor's Obligation.

1. To himself - in that he should take every opportunity to improve his skill in managing the numerous forces and factors under his supervision.

2. To his employees - to enable them to work better when established standards are set up for their guidance.

3. To management - because they have entrusted him with responsibility to perform his job in the most economic manner.

IV. Getting Ready to Plan the Job.

1. Supervisor's job is first. Before a Supervisor can plan work for his employees, he must have organized his own responsibilities. As a leader, he must guide, direct and lead the way and he cannot lead others unless he must know where he is going - he must have a plan. By having a plan, it eases his job and assists him in carrying out his responsibilities. It is his means to efficient organization.
2. Planning Saves Time. Good Supervision is impossible without good planning. It helps the Supervisor run his job and prevents the job from running him. While it is true that planning takes time, it saves more time than it takes. It prevents mistakes, eliminates waste, keeps production up and reduces friction between the Supervisor and his employees and the Supervisor and his superiors.

3. Supervisory Planning Responsibilities. The Supervisor must coordinate and plan the work of his department if it is to function as an efficient unit. The Supervisor must think positively and constructively if he is to plan efficiently. His mental approach determines his planning success.

4. Constructive Thinking in Planning. Constructive thinking is the basis for success. The Supervisor must think he can run the job correctly to be successful. In order to plan correctly, he must first develop good thought habits.

5. Preparation for Planning.
   
   A. First, have an objective - set a goal. Make this goal attainable within reason. Don't make the goal too easy or difficult. Focus attention on one thing at a time. Develop enthusiasm (it's catching) and concentrate on attainment by keeping your goal in mind at all times.
   
   B. Keep an open mind - have a positive attitude. You must consider new ideas. Look for the good in an idea rather than the difficulties. Be able to accept constructive criticism. Don't jump at conclusions.
   
   C. Think in positive terms - develop self confidence - have the success is inevitable. Accept problems as opportunities, as challenges for self-improvement.
   
   D. Act with assurance - talk progress. Act successfully (be a living example of efficiency). Be a hard worker.

VI. Supervisor Must Understand His Responsibilities.

Each Supervisor must have the authority for discussion and action necessary to discharge his responsibilities. (Personnel Policy #7) Without the authority to fulfill his responsibilities and without adequate understanding of his responsibilities, the Supervisor cannot plan effectively.

VI. Personnel Planning Records How Time Is To Be Spent.

It's aim is to utilise time with the utmost of effectiveness. The important thing is not how much time but how it is used. A Supervisor loses valuable time through poor planning. He usually ends up hurrying and accomplishing nothing of his objectives in time, thereby decreasing his output and lowering
VII. Principles of Planning:

1. List present practices.
2. Keep a record of how your time is spent, as it actually occurs.
3. (Every 1/2 hour for 5 days)
4. Classify your duties — to determine the importance of your various assignments. Are they essential or not? Give important things the "right of way".
5. Determine what assignments you should delegate and who you should delegate them to.

VIII. The Supervisor should never depend upon his memory alone in managing his work. Memory should always be fortified by systematic methods and records. This also aids in self analysis and helps him eliminate non-essential work from his schedule.

IX. Points the Supervisor Should Do in Planning His Day or Week.

1. Schedule each job at an ideal time.
2. Give important things the right of way.
3. Delegate certain jobs.
4. Don't crowd too many items into one day.
5. Allow for flexibility.
6. Recheck schedule to make sure all responsibilities are included.
7. Allow time for emergencies.
8. Look for possible delays.

X. A Supervisor's value is measured in terms of what he accomplishes. He can accomplish more with greater ease through adequate personnel planning. Planning brings about:

1. A job of balanced responsibilities.
2. Improved personal and departmental efficiency.
3. Easier and more pleasant work.
4. More free time for emergencies.
5. All phases of responsibilities covered.
7. Fewer interruptions.

XI. Follow-up is necessary to make personal planning effective. It's on the job where real planning is carried out and put into action. That's why it's necessary to establish an effective follow-up on all formal training programs.

1. It reminds him of the principles of his preparation.
2. It makes sure he follows his plan as intended.
3. It enhances any necessary changes and improvements in his schedule.
4. It tells him if he is making progress or not.
II. Measuring Success

The successful application of a Supervisor's Personal Planning is measured in terms of improved quality, fewer accidents, reduced costs, increased production, less absenteeism, improved morale, reduced labor turnover, and fewer grievances.

History of Unions

1770-1820 = Formative years of Unions
1830-1860 = Beginning of National Unions & Federation
1860-1890 = Precedence of P&U
1890-1910 = Rise of rival CIO
1910 = Present - Institution of AIB

1. Formative Years

This period was marked by the predominance of local craft unions.

The primary purpose of the unions was for extending sectional aid to the needy members, but they did develop into economic unions in the latter part of this era. The groups also maintained an active interest in the quality of work produced by their members.

Employee groups during this period faced two major problems:

1. Employee Resistance
2. Legal Barriers

Because written agreements were not used, the employer could go back on his word whenever he felt the union wasn't strong enough to stand up to his actions.

The legal barrier to union growth was the English common law doctrine of conspiracy - which claimed union were conspiracies in restraint of trade and union were both a criminal and civil offense. In 1849, in the case of Massachusetts vs Kent, the doctrine was unified making a threat to killing unions.

2. Beginning of National Unions & Federation

After the advent of the Civil War, unions grew in strength. Two major developments occurred in this era:

A. National Labor Union (1866), a national union with 500,000 members, but it drifted into political action rather than economic activity. Lost support and died in 1877.

B. Knights of Labor (1869), maintained strength until 1877 when it began concentrating on the unorganized workers. In 1880, it had a membership of 700,000. This declined to 100,000 by 1897, and died in 1886.
II. History of Unions

1790-1850 - Formative years of Unionism
1850-1890 - Beginning of National Unionism & Federation
1890-1935 - Predominance of AFL
1935-1955 - Rise of rival CIO
1955 - Present - Unification of AFL-CIO

1. Formative Years

This period was marked by the predominance of local craft unions. The primary purpose of the unions was for extending financial aid to its needy members, but they did develop into economic unions in the latter part of this era. The groups also maintained an active interest in the quality of work produced by their members.

Employee groups during this period faced two major problems:

1. Employee Resistance
2. Legal Barriers

Because written agreements were not used, the employer could go back on his word whenever he felt the union wasn't strong enough to stand up to his actions.

The legal barrier to unions growth was the English common law doctrine of conspiracy - which claimed unions were conspiracies in restraint of trade and unions were both a criminal and civil offense. In 1842, in the case of Massachusetts vs Hunt, the doctrine was modified ending the threat to killing unionism.

2. Beginning of National Unionism & Federation

With the advent of the Civil War, unions grew in strength. Two major developments occurred in this era.

A. National Labor Union (1866) a "patch quilt" of all types of Unions. Had 500,000 members but it drifted into political actions rather than economic action. Lost support and died in 1872.

B. Noble order of the Knights of Labor - 1869

Maintained secrecy until 1878 when it began organizing skilled and unskilled workers. In 1886, it had a peak membership of 700,000. This dropped to 100,000 by 1890. Why did it fail.
1. Historically

a. Lost the meat packer operators
b. Its indecisiveness to bargain for the 8 hr. day
c. Haymarket Riot

2. Functionally

a. It was based on a "class struggle". Had a loose organized structure.
b. No local autonomy on right to strike.
c. Had too many groups with too many different aims for a practical union - anyone could join - even "fair" employers.
d. Its platform was political and educational - not economic. Its aims were too general and idealistic.
e. It was strongly opposed by employers.

3. Predominance of AFL - Samuel Gompers, founder of the AFL, saw the weakness of the Knights of Labor. His beliefs were incorporated in the AFL Philosophy and are as follows:

a. Keep Government out - achieve aim within the capitalistic system. Approach problems on an economic basis - "bread and butter" unionism.
b. Stay out of politics - but "reward your friends and punish your enemies."
c. Be opportunistic - get what you can now.
d. Have local jurisdiction prevail.
e. Be strong - Gompers went after the skilled workers - where he could get loyalty. Break between skilled and unskilled workers.

The IWW (1905) challenged the AFL. It was a radical group with communist tendencies. It collapsed during World War I because it did much to hurt the War effort and caused great public disfavor.

The end of WWI saw 4 million union members. After the War, we had prosperity and inflation and the AFL became complacent. There began an open shop movement. The anthracite coal strike of 1902 - which caused management adverse public opinion and government intervention caused management's anti-union philosophy. Management developed a paternalistic doctrine which undermined the AFL seriously until the depression of 1929, where it fell apart. Roosevelt swept into office in 1932 with 12-16 million unemployed workers. The New Deal Policy encouraged workers to join unions and get CB - government support for the first time.

4. Rise of Rival CIO -

However the unskilled workers - who were hit the hardest - were not taken in by the AFL. John L. Lewis took a position against this and organized the UAW and Steelworkers. These unions founded the Committee of Industrial Organization and desired to stay inside the AFL. The AFL disapproved and suspended the CIO and in 1938, it changed its name to the Congress of Industrial Organization. This split set the union movement back 20-30 years, but the principle of organizing the unorganized was being fulfilled by the CIO.
The Wagner Case (Wagner Act) 1935 - upheld by Supreme Court in '37 required employers to bargain collectively with their employees representatives. If not, they were guilty of unfair labor practices.


1. Employees have right to organize as well as not to.
2. Supervisors are members of management - can form a Supervisor's union, but the employee is not required to recognize it.
3. Closed shop illegal.
4. State "right to work" laws.
5. Union - subject to unfair labor practices.

5. Merger of AFL-CIO - Some Possible Results

a. Many independent unions may join for strength.
b. Greater use of lobbying
c. Strengthen fight against communism.
d. Increase organizational strength - White Collar workers.
e. Disappearance of jurisdictional strikes.

III. Why do Workers Join Unions?

IV. Continental's Philosophy of Labor Relations

A. 1947 - Written Statement of the Company's Philosophy

1. Our Management is not anti-union.
   a. "Our Management will not knowingly permit any attempt to undermine the union in any plant where our employees have chosen such representation."
   b. "Our Management does not believe that the day will come when we will not have Union organization and will do everything possible to discourage any such thinking on the part of any members of the line organization."
   c. "Our Management does believe that in our unorganized shops where we have right employee relations built on the eight basic policies, our employees will not find Union organization necessary."
Our Management believes there is a common interest - that is, the maximum success of our company - that there is no other way in which the maximum in job security and substantial earnings for our employees can be attained and that this common interest can best be served by encouraging cooperative effort on the part of the Union and Management.

e. "Our Management believes in true collective bargaining with representatives of our employees' own choosing but it is opposed to monopoly and dictatorship in the Unions.

"Our Management's employee relations policies apply equally to Union and non-Union employees.

f. "Our Management will not knowingly permit any discrimination in promotional opportunities - inside or outside the bargaining unit - merely because of Union membership."

2. This philosophy was the basis for many progressive personnel programs which were instituted voluntarily by our Company before they had become demands of the unions and, in fact, before such programs became general practice in industry.

V. History of Labor Relations in Continental

1. Prior to 1937 - early bargaining units were scattered throughout various plants and were primarily craft unions. The bargaining agreements were on a local basis and varied from plant to plant

Craft Unions - usually AFL. Organize along definite occupation lines. Industrial Unions - usually CIO - attempt to organize all eligible employees within the plant, regardless of occupation.

2. 1937 to Present

With the courts upholding the legality of the Wagner Act of 1935, the CIO organized many of Continental's plants. By 1946, Continental was a party to 61 union agreements covering 90% of the hourly employees. The remaining 10% were found to be in 12 unorganized plants. As of July 1956, Continental had in the U.S. alone - 136 bargaining units represented by 20 different unions in 84 plants. Of these 136 unions, 119 cover 23,500 production and maintenance employees, while 17 cover 900 salaried office workers.

3. The Master Agreement

In 1949, the first Master Agreement was negotiated between Continental and the United Steelworkers of America covering 20 different locations. Today the Master Agreement covers 47 bargaining units covering some 13,800 employees.

The Master Agreement is intended to cover certain basic principles while local supplements were prepared to cover various local conditions. Both the company and the United Steelworkers are endeavoring to establish uniform at all locations covered by the Master Agreement.
Plant #51 was originally built in 1936. At that time we had approximately 230 employees who produced 100 million meat cans per year. Today we employ an average of 800 employees and produce approximately 600 million meat cans per year.

Plant #51 was officially organized on February 15, 1953, by the United Steelworkers of America, Local 2608. This local was the bargaining unit for all production and maintenance employees including the machine shop and the entire lithograph department. The AIA withdrew from the Steelworkers at the end of the contract year and negotiated their first contract on July 19, 1948. And on April 4, 1950, the International Association of Machinists negotiated a contract with the company.

Our chauffeurs are members of the Chicago Truck Drivers, Chauffeurs and Helpers Union of Chicago and Vicinity, Local #705. Our plant doesn't have a contract with this organization. However, we do abide by the majority of the clauses contained in their contract.

On October 21, 1955, the United Steelworkers organized our office workers under local #5318. There are approximately 50 members in this local.

Collective bargaining in our plant as well as in the entire Continental organization has been very successful for both unions and management. This success indicates the real desire on both parties to make collective bargaining work within the goals of security and economic progress.

VII Basic Contents of a Labor Agreement

A. What is a Labor Agreement?

It is a written contract negotiated by an employer and the freely chosen representative of his employees (union). It contains the status of the union, the duration of the agreement, the procedures to be followed in settling disputes, and the terms and conditions of employees.

B. What Provisions are Generally Included in a Labor Contract?

1. Definition of terms - this includes:

   A. Definition of the terms, "Employee", "Union", and "Company".

   B. The type of worker which the bargaining unit represents will be set forth.

   C. The purpose of the agreement is explained

   D. The relationship between the agreement, prior customs, and informal agreements is usually clarified.

2. Provisions for Protecting Workers' Rights

   This refers to transfers, upgrading, downgrading, meaning and use of seniority in lay off and discharges, disciplinary procedure including lay offs and discharges resulting from disciplinary
Includes a statement indicating that the unions will be recognized as the sole representative of the employees within the bargaining unit. Also includes provisions for check off of union dues.

4. **Wages** -

Includes a detailed schedule of the rates and ranges for the various job classifications. The manner in which rates are set, procedures to revise the rates, wage scales for "special cases" (group leaders, department instructors), and shift differentials.

5. **Hours of Work** -

Length of work, day and week, overtime payments, vacation pay, holiday pay, relief periods etc.

6. **Administration of the Agreement**

Procedures in the presentation and adjustment of grievances, for disciplinary action, and for arbitral disputes.

7. **Employee Benefits** -

8. **Apprenticeship and Training Programs** -

Minimum and maximum number of apprentices employed.
Length and content of program
Selection and termination of apprentices and trainees type of work performed by apprentices and trainees.

9. **Protecting the health and safety of members**.

Rights and obligations of management, the union, and union members. - Provisions for safety devices.

10. **Duration of the Agreement**.

C. Labor contracts are legally enforceable under the Taft-Hartley Act of 1947. However, because of prolonged litigation and antagonism neither management nor the union will use this to compel observance of the contract. Court action is a last resort only.
I. Company Philosophy on Grievances

1. Basic Policy #2

"Continental must assure every employee the right to appeal decisions of his immediate supervisor in the consideration of his problems, ideas and suggestions."

Thus, every employee has the right to:

a. Express his opinion
b. Personal discussion
c. A definite answer
d. Appeal

If an individual appeals for a review of his problem, idea or suggestion by a higher authority, the supervisor must respect his right and must cooperate in making the procedure effective.

2. Union Agreements

1. Turn to Article XIII, page 64 of the 1955 Master Agreement between the Company and the United Steelworkers of America.

II. Grievances and Symptoms of Disturbances

1. What does the term "Grievance" mean?

2. What is the significance of a grievance (complaint)

It adversely affects the mental attitude of a man towards his job. Sooner or later, that attitude will affect the morale of the man and possibly his fellow workers, his output, the quality of output, and the costs of production.
whatever the cause is and whether it is justified or not - if a man thinks he has a grievance, the Supervisor must deal with it and try to straighten out the situation. The Supervisor must attempt to recognize symptoms of disturbances and try and solve them before they develop into any full-scale grievance.

3. How does an employee react when he has a grievance (complaint)

a. If he simply adjusts himself to the situation, what does this bring out about the employee's attitude?

b. If he complains openly, he aids the problem by bringing his problem out in the open and it gives the alert supervisor a starting place to solve the problem. But there are certain disadvantages to this - what are they?

c. The employee may worry and brood - or may not do his job as well as he should.

What are some signs of individual or group frustration?
III. Common complaints and grievances

1. What are some of the most common things that make workers sore and cause complaints and grievances?

2. Complaints - Classified

   a. Complaints referring to objects or conditions which can be seen and agreed upon.

      Give some examples:

   b. Complaints arising from experiences or conditions which cannot be clearly seen or agreed on.

      Give some examples:

   c. Complaints arising from expressions of the sentiments of the worker.

      Give some examples:
3. Understanding the Complaint

Many times the things complained about are not actually the causes of the disturbance - but are the symptoms of some underlying problem or disturbance. Thus, the Supervisor must know and understand what is really "eating" his man.

IV. Correct Handling of Grievances

1. Desirable Personal Qualities of the Supervisor

   Direct contact with the complaining employee is usually the job of the Foreman or immediate Supervisor. What are some of the qualities a Supervisor should have in handling a complaining employee?

   ... (content omitted for brevity) ... 

2. How would you as a Supervisor handle a grievance (complaint)?

   ... (content omitted for brevity) ... 

3. Handling of grievances within the union agreement grievance procedure.

   "Turn to page 44 of the 1955 Master Agreement between the Company and the Steelworkers."
1. How can the Supervisor plan to prevent grievances?

   a. List the possible causes of grievances. What in your mind are some of these causes?

   b. Check each person and each job in the work group against your list.

      1. First - consider the job from the worker's point of view - what may be proper from the Supervisor's point of view maybe an inequity or injustice as the worker sees it.

      2. Then - keep in mind anything that may cause a grievance (working conditions, personal feelings, etc.)

   c. Remove any potential cause of a grievance that you see on the list. Be sure that your actions are consistant with company rules, policies and practices and to the best interests of the whole work group.

   d. Maintain personal contact - with each worker in the group. This gives the Supervisor numerous opportunity to prevent any potential grievances.
I. Purpose of Human Relations -

To give the American worker a sense of usefulness and importance (and thus improve his work.) Human relations is nothing more than good will -- and applied common sense, and much of it depends on simple things such as making a place more comfortable, and a friendlier place to work.

II. Men & Their Work

A. Every industrial organization has two main functions - Technical & Social

1. Technical - includes the physical plant, tools, machinery, raw products etc. It is concerned with producing a product (which is the firm's main reason for being.)

2. Social - The business is a place where men live a good part of their lives - it is a place where men satisfy or fail to satisfy some of their personal needs. If these needs are not satisfied, there will be discontent, turnover, strife and low production. This can injure a business to the point of ceasing to exist.

B. What are some of man's basic needs that are satisfied through his job?

1. What do we mean by Economic Security?

2. How about Personal Security?

3. Some Examples of Recognition?
Each one of these needs will differ for each man in the same way as physical and mental traits do. These differences mean a difference in the way each person looks at his job, reacts to his job, and interprets changes occurring in his job or, in the surroundings of his job.

C. It is important, therefore, that the Supervisor understand his workers.

To do this, he must be interested in them as individuals. He must realize that each has different aspirations and interests, with different problems and different ways of facing and solving them. He must help the worker get what he wants from his job while keeping in mind the needs of the organization.

By helping the worker attain what he wants from the job, the Supervisor will get:

1. His people giving a little more to the job.
2. His people getting along better with their fellow workers and himself.
3. His people to work for and with him.

III. How does a Supervisor Maintain Confidence, Cooperation, & Morale?

1. **He should know each employee as an individual.**

This can be accomplished by the Supervisor taking the time to talk to his employees. This gives a Supervisor an opportunity to prevent a possible major grievance, while giving him a chance to understand the employees personal life and history which can give the Supervisor a good idea of the causes behind any problems the employee may have in his job. It also gives the employee a sense of recognition and worthwhileness.

2. **Show no Favoritism - to any individual or groups.**

3. **Do not Betray an Employee's trust**
5. Praise the employee on his good performance. This must be sincere and warranted.

6. Try to develop within your employees a feeling of pride in their work, their department, and their company. Try to show the employee the important role his job plays in the productive process.

7. Help your employee to feel he “belongs” in the department. This should be begun in the induction process. Also — encourage your employees to join the company’s social activities.

8. Handle complaints, grievances, and requests without undue delay. It may happen that a slight delay would be advantageous if it has an unfavorable result for the employee. This slight delay will give him the idea that his request was given adequate consideration. If the answer was given immediately, he may not be satisfied and think that he got a “fast-shuffle”.

9. Obtain all the required background information regarding a complaint, grievance or request before making your decision.

   A. If you have to reverse your decision or have a higher authority, reverse it, you may lose the respect and confidence of your men.

   B. Your men will accept an unfavorable decision more readily if it’s been based on complete and objective data.

10. Make sure your employees receive full credit for suggestions, improvements and outstanding performance. — Recommend your eligible employees for promotion.

11. Keep your men informed — on developments within the company and the department. This reduces the unreliable “grape-vine” information and boosts employee morale in that it gives the men a feeling of being on the “inside” — a feeling of belonging.

IV. Giving orders and following-up on performance

1. In giving an order, what should you consider?

   A. Is it advisable to ask an employee how a job should be done? If so, why?
B. What is the main reason for telling an employee why a certain task is to be done?

C. What is the reason for telling an employee who should do it?

2. Four basic types of orders: **Command, Request, Suggestions** & Call for Volunteers

A. **Command** - Allows very little discretion as to the manner by which the employee is to do the work. This type of order is good for:

1. Employees who require a great deal of direction.
2. Where performance must be immediate and exactly according to directions.
3. When the Supervisor has definite ideas about how his order is to be carried out.
4. For standardized routine work.
5. For new and untrained personnel.
6. To hold men in line - if required.

B. **Request** - This type gives the Supervisor an opportunity of making use of the employee's experience in deciding the method to use in doing a job. - While the Supervisor retains the power of final decision as to the method. The advantages of this type of order are:

1. Obtains the knowledge and experience of a group rather than a single person.
2. Develops cooperativeness.
3. Increases the ability of subordinates to exercise judgments.

C. **Suggestion** - Allows the worker to decide how the order will be carried out. This type of order is good for:

1. Developing subordinates to carry out their assignments independently.
2. Complimenting a good worker on his judgement and skill.
3. Reducing supervision time.
3. Improving the Effectiveness of Order Giving

a. Make sure the order is necessary.
b. Make sure the employee understands what is expected of him.
c. Don't go into excessive detail in the presentation of an order.
d. Don't violate any lines of authority.
e. Make sure the employee knows the type of order being given.
f. Give orders in such a manner that it will increase the employee's self respect.

4. What are some common pitfalls that Supervisors must overcome in giving orders?

5. Follow-Up - The manner of which is very important

The amount of follow-up will vary with the worker's experience, past history in performing previous orders, and his reliability. In all cases, though the Supervisor has three important factors to consider:

1. He must follow up soon to prevent damage and to see if instructions are understood.

2. He must follow up frequently but not excessively, so he is familiar with the work each employee is doing.

3. He must follow up systematically to be certain that he benefits from his time investment.

V. Changing Methods

A. Resistance to change is almost universal among people. There are various reasons for this:

1. We tend to become "set" in our ways - and resist attempts to upset the "status quo".
2. We feel that any change may affect our present security adversely.
3. We sometimes feel we are being criticized on the way we do our job when it is to be changed.

B. Some positive steps that can be taken to improve the attitudes of employees towards changes are:

1. Show how the changes can make their work easier.
2. Explain the long-range effects of new and improved methods.
3. Explain the competitive nature of the industry and the need for constant improvement. The secure position of the company gives the employees security on their jobs.
4. Explain in detail - how the changes will operate and how they will affect the employee's jobs.
5. If possible, have the employees cooperate in the development of new methods.

C. These five steps can be seen as three approaches that a supervisor may choose when a major change is necessary.

1. He can work out the plans and sell them to the group.
2. He can work out the plans or method, and then discuss it with the group – so they can suggest modification.
3. He can have the idea worked out through group discussion.

VI. The Supervisor & Human Relations

1. Psychologist, William James says: "The average man operates at 10% of his brain power." If this be the case, the supervisor's question is how he can top this additional productive ability. How can he motivate his men to do better? The way to do it is through a sincere application of good human relations on the part of the supervisor in all his contacts with his employees.

Human Relations - benefits the workers, the company, and the supervisor.
THE SUPERVISOR'S ROLE IN PROFIT PLANNING

I. CONTINENTAL AS A CORPORATION

A. A corporation is an artificial being which consists of several or many persons (stockholders) united as one body under a single identity in order to transact business.

Each stockholder in our company has invested his savings in anticipation of a return.

Money invested by the stockholders is used by the company to operate the business. Management, to attract the stockholders, must operate the business in a profitable manner.

B. Stockholders have a voice in the operation of an organization in that they:

1. Vote at their meetings.
2. Have prior purchase rights on any further stock issued.
3. Share in company's profits (dividends)
4. Received a detailed report of the company financial position and plans for the future.

II. PURPOSE & BENEFITS OF THE PROFIT PLAN

A. It sets the goals of accomplishment - giving management an integrated picture of what is to be accomplished profit-wise by the company.

B. It assures a balanced program - giving all phases of the company's activities proper study and emphasis.

C. It compares actual performance against planned. Deviations from the plan are then pointed to definite spots and to specific conditions.

D. It leads to effective management. The entire management group assisted in its development and each knows the pathway to follow in order to get the desired end. The thinking of management is applied before and not after operations are begun.

E. It provides targets (definite goals of accomplishment) which bring purpose and meaning to the work of managers throughout the company.

F. It aids the Financial Dept. - giving the Dept. sufficient data for setting up the cash budget, available working capital required, sound scheduling (inventory & Purchasing), and makes possible an evaluation of the interplay of sales volume, prices, fixed costs, and variable costs as each affects profits.

G. It means control. - Standards, current estimates and budgets - which make effective control possible - are an integral part of Profit Planning. These controls analyze the deviations from planned operational expenses.
III. BUILDING THE PROFIT PLAN

A. The profit plan is built through the annual budget, and the forecast for two years beyond the budget year. The budget system plays a primary role in the company's efforts to develop a planned income.

B. Objectives of Our Budget System

1. Planning - A budget must be the financial expression of same plans & programs. Planning and program development are the basis on which financial budgets are built.

2. Communicating - Communicating intelligently requires definition and classification which a good budget system affords.

3. Reviewing - Is possible only when plans and programs are developed in terms of definitions and categories we understand.

4. Controlling - The end objective. Comparing actual results against our plans and programs is a part of controlling.

5. Realism - Means the budget is attainable while also being a target for management and operating personnel to shoot for.

C. Phases of Budget Procedure

1. Development of Basic Assumptions

This phase established the general background information, ground rules, and basic objectives that form the framework for the budget and determines its shape and character. Such items as sales forecast, Price-Cost relationships, possible cost reductions and machine efficiency improvement, etc. are considered. This phase usually takes three months, from 5-15 to 8-15. On 8-15 the control office publishes a basic assumption which is distributed to the Divisions.

2. Preparation of Proposed Budgets & Forecasts

This phase covers four months in the time table and it starts at the plant level after receiving their allocation of the operating division sales and capital figures. The plant has four weeks to apply cost and expense data that will express the plants operational plans in terms of proposed monthly budget of sales, income, inventory, and employed capital.

The division then has three weeks to consolidate the plant data into a division wide program and proposals are submitted to Head Office the first week of October. Final review and consolidation of division and Head Office proposals into an overall three year program for the company requires an additional 2 -3 weeks prior to presentation to the Budget & Forecast Committee. The committee then reviews this material before it goes to the Chief Executive Officer in early November. Final approval covering the annual program for the budget year and the two forecast years comes from the Board of Directors at its November meeting.
3. Distribution of Approved Budgets

This is the "wrap-up" stage of the budget process. Any changes or modifications of proposals submitted by plants and staff departments are made and the annual budget figure is then broken into monthly units.

D. The Preparation & Review of the Plant Budget

1. What the Supervisor Should Know to Prepare the Budget -

2. Budget process starts with the sales volume expected to be obtained in light of economic forecasts.

3. The anticipated volume at each plant for the coming year is given to plant management.

4. Plant management, individually and collectively, plans to produce the required volume at the time needed and in the most economical manner, with the assistance of the Plant & Division Staff Depts.

E. Principal Plant Staff Depts. involved in Budget Summary are:

1. Accounting - Coordinates the Plant Management program in the important cost areas, pricing and converting the plan into dollars and cents.

2. Production Control - Applies sales budget to the line operations in developing the overall production plans.

3. Industrial Engineering - Develops standards for most of the variable cost items and plays a key role in manufacturing efficiency and cost reductions.

4. Industrial Relations - Administers and coordinates plant activities which contributes to the effective preparation and use of the budget.

5. Production Engineering - Concerned with the repair and maintenance of equipment, standards, method improvement, equipment layout etc.

IV. The Profit Plan in Action

A. Control Statements focus what was done against what was planned. It shows how well the profit plan is working.

B. Nature of Control Statements

1. Most are of a direct nature showing actual happenings compared to
C. Control statements show favorable and unfavorable deviations from the planned program which lays the basis for corrective action.

D. MCR-2 "Comparison of Sales & Income" - one of the most significant control statements in our company. Shows the gain or loss from standards, correct estimates and budgets. It is a Master or Summary Statement which has many other statements to support its findings.

E. MCR-3 "Plant Operating Statement" shows the gain or loss from budget by dept for both variable costs and programmed fixed costs. It gives management a thorough analysis of plant operations.

F. MCR-6 & 7 - "Mfg. Efficiency - % Performance" are Bar Charts listed in the monthly management control reports. Represents plant efficiency within the Division.

V. WORKING THE PROFIT PLAN

A. Budgeting Control Standards are the "Management by Exception" tool for the supervisor.

1. The standards establish the amount of quality product that is produced per hr, day or month with the facilities of a given dept.

2. The comparison of what operations should have cost and what they did cost is shown and the "sore spots" of operation are easily seen.

B. Procedures Supervisor Can Use to Determine Any Cause of Operating Loss -

1. Check reasons for labor loss - ie: late start, excessive relief, equipment breakdown, material shortage, etc.

2. Check reasons for machine inefficiency, ie: Mechanical failure, failure of auxiliary equipment, defective materials etc.

VI. WORKING THE PROFIT PLAN AT PLANT
APPENDIX III

CONTENTS, SEQUENCES AND TIMING
OF THE FINAL HEAD OFFICE
APPROVED PRE-SUPERVISORY
TRAINING PROGRAM
SEQUENCE AND TIMING

<table>
<thead>
<tr>
<th>Unit Title</th>
<th>No. Sections</th>
<th>No. Sessions</th>
<th>Time Each Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preview of Supervision</td>
<td>5 sections</td>
<td>4 sessions</td>
<td>2 hours each</td>
</tr>
<tr>
<td>Administrative</td>
<td>5 sections</td>
<td>4 sessions</td>
<td>2 hours each</td>
</tr>
<tr>
<td>Technical</td>
<td>5 sections</td>
<td>5 sessions</td>
<td>2 hours each</td>
</tr>
<tr>
<td>Leadership</td>
<td>5 sections</td>
<td>7 sessions</td>
<td>2 hours each</td>
</tr>
</tbody>
</table>

OUTLINE OF PROGRAM MATERIAL

Introduction

Unit One - Preview of Supervision

Sec. One Our Company
Sec. Two Management Principles and Functions
Sec. Three The Supervisor's Job
Sec. Four Using Staff Services
Sec. Five Summary - Transition

Unit Two - Administrative

Sec. Six Company Policies and Rules
Sec. Seven Employee Benefit Plans
Sec. Eight Safety and Health Services
Sec. Nine Labor Relations Philosophy
Sec. Ten Summary - Transition

Unit Three - Technical

Sec. Eleven Controlling Quality
Sec. Twelve Profit Planning
Sec. Thirteen Production, Inventory and Maintenance
Sec. Fourteen Training and Job Instruction
Sec. Fifteen Summary - Transition

Unit Four - Leadership

Sec. Sixteen Human Relations
Sec. Seventeen Handling Complaints
Sec. Eighteen Maintaining Discipline
Sec. Nineteen Problem Cases
Sec. Twenty Final Summary
APPROVAL SHEET

The thesis submitted by James Francis Murphy has been read and approved by three members of the faculty of the Institute of Social and Industrial Relations.

The final copies have been examined by the director of the thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the thesis is now given final approval with reference to content, form, and mechanical accuracy.

The thesis is therefore accepted in partial fulfillment of the requirements for the Degree of Master of Social and Industrial Relations.

January 30, 1958

Date

Philomena M. Mullaney
Signature of Adviser