

DOCUMENT RESUME

ED 143 846

CE 012 466

TITLE Training Guide for Identifying, Meeting, and Evaluating Training Needs.

INSTITUTION Federal Highway Administration (DOT), Washington, D.C. National Highway Inst.

PUB DATE Jan 77

NOTE 81p.

EDRS PRICE MF-\$0.83 HC-\$4.67 Plus Postage.

DESCRIPTORS *Educational Needs; Employer Employee Relationship; *Evaluation Methods; Government Employees; Measurement Instruments; *Needs Assessment; Personnel Management; *Program Development; *Program Evaluation; Program Guides; *Program Planning; *Staff Improvement; Work Attitudes

ABSTRACT

This manual is a guide for the training supervisor, specialist, or other official who has to plan, develop, and carry through a training program for improving the effectiveness of the employee development program, particularly in a governmental department of highways. The content is in three chapters: (1) Identifying Training Needs briefly discusses the process for identifying training needs, summarizes what to observe and study as clues to possible training needs (need indicators), and in detail, discusses several data gathering methods for need determination: interviews, questionnaires, records and reports analysis, tests, group problem analysis by line supervisors, and job analysis and performance review; (2) Meeting Training Needs briefly discusses the available methods and resources for meeting needs and the major steps involved in planning and conducting a training program; and (3) Evaluation discusses the nature, meaning, and purpose of evaluation, standards, and seven major steps in evaluation. The last thirty pages of this manual contain charts, samples, and descriptions illustrating plans and methods for evaluating the scope and goals of the overall program; organization and administration of training; the training process itself; and the results of training. (EM)

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ED143846

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
NATIONAL HIGHWAY INSTITUTE

TRAINING GUIDE
FOR
IDENTIFYING, MEETING, AND EVALUATING
TRAINING NEEDS



U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

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JANUARY 1977

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This manual is for the training supervisor, specialist or other officials who have to plan, develop and carry through a training program for improving the effectiveness of the employee development program.

This manual is not intended to be regulatory or directive in nature. Rather, it is a guide from which each activity may choose whatever material it believes may be beneficially applied to its own training problem.

1. What is Employee Training?

A definition that has become almost standard is, "Employee training is the process of aiding employees to gain effectiveness in their present or future work through the development of appropriate habits of thought and actions, skills, knowledge and attitudes."

In any organization, training goes on all the time - in classroom, office and shop. Somehow new workers learn their jobs; employees increase their skills; people learn to work together. However, this learning may be hit or miss, slow or fast, right or wrong. Training is the conscious effort on the part of management to give direction and assistance to this learning.

It is more than class or conference room instruction, although formalized group instruction is an important part of it.

Training is the whole gamut of activities connected with the occupational development of people at work.

A training program is the planned sequence of actions taken by an organization to develop its employees.

2. Training in any Department of Highways

The objective of employee development within the Department is to improve the efficiency and economy of operations by:

- a. Developing a well-trained work force;
- b. assisting employees toward achieving their highest potential usefulness; and
- c. motivating employees and stimulating a sense of participation.

Training in and for itself has no place in the Government agencies. Training must have a purpose; it must be matched individually to the occupational needs of the employees and collectively to the organizational needs of the activity.

In the chapters that follow, we will consider the necessary foundations of a good training program; how an agency determines what training is needed; how a training program is constructed on the basis of these needs, and how an agency can evaluate the effectiveness of its training program.

CHAPTER I

Identifying Training Needs

1. Whose Business?

Training need identification is, in fact, everybody's business. Thereby, it may easily become nobody's business, with guesswork and unfounded assumptions substituting for realistic analysis and definition. To prevent this -

- a. Operating officials must analyze their situation and decide when training will help and who needs training. But they may need how-to-do-it help from the training officers or persons responsible for identifying training needs and developing training programs.
- b. Training Personnel must provide operating officials the help they need and, if necessary, stimulate action on their part including recognition of the obvious needs listed below. Personnel responsible for training must get out and talk with operating officials, get to know and understand their problems as they see them. Only then can the training personnel be of real assistance.

2. Some Needs Are Obvious

Existence of certain training needs can be accepted on the basis of common sense and reason, without extensive surveys or analyses. Training of some kind (formal or informal; simple or complex; by fellow employees, supervisors, or others) is a practical necessity, for example, whenever:

- a. a new employee comes to work;
- b. an employee is assigned to a new or different job which he does not know;
- c. the methods of doing an "old" job are changed; or
- d. the mission, the organization, or the working relationship within an organization are substantially changed.

The problem with such training needs is not one of identification but one of making sure they are actually met. What plans do we have in effect throughout the Department for meeting them? If each District or Division, etc., has a plan, how well does it work?

3. Others Are Not Obvious

Other training needs are not so obvious. They must be arrived at through careful analysis, based on problems existing or foreseeable in the work situation. This analysis should include institutional as well as individual employee problems - a two pronged approach. It should be participated in to varying degrees by employees, supervisors, top management, and the personnel and/or training staff, each of whom can make a different contribution. This concept of training need identification is charted on Page 7 followed by broad general guides for action.

4. The Basic Process

The basic process for identifying training needs appears simple: Determine what is expected or required in the job or the situation. Determine the degree to which the requirement or expectation is being met. If it is not being met, find the reasons. To the extent that these reasons involve changes in the knowledge, skills, attitudes, or behavior of employees (at any level), we may have a need which training can probably help meet. The Training Personnel and the line officials concerned will have to judge whether training is the best way to meet it.

The simplicity of the process is deceptive, because so many of the determinations are necessarily subjective. They must, therefore, be made with special care, based on good information adequately interpreted and evaluated.

5. Gathering Data

How does one get the information necessary to make these determinations? This, too, is simple - in its basic aspects: Ask line officials, staff officials, employees. Observe employees and their work. Study production and other management data. Or use some combination of these approaches.

Specific methods of asking, observing, and studying are many and varied. The charts on Page 9 lists advantages and

limitations of each of these methods, with suggested "Do's and Don'ts" for using them. Each of the methods is then discussed in more detail, with samples. This material is intended not to prescribe or instruct but to illustrate; to describe a variety of methods which might be useful; and to stimulate your thinking about what would be most likely to succeed in your own situation. You are urged to accept, reject, or adjust any of it as necessary to meet your own unique requirements.

The kinds of things to be asked about observed, and studied as clues to possible training needs are also suggested by the discussion of methods and by the examples given in that discussion. These "need indicators" are summarized here for convenience.

STUDY

ORGANIZATION PLANS

- * projected changes in mission; structure, personnel, or procedures.

EMPLOYEE RECORDS

- * high turnover
- * absenteeism
- * sick leave rates
- * accident severity and frequency ratios
- * tardiness
- * grievances
- * merit ratings
- * composition of supervisory force

OFFICIAL INSPECTIONS REPORTS

- * by own organization
- * classification surveys

WORK AND WORK-FLOW

- * production bottlenecks
- * fluctuations in production
- * reports on public or customer satisfaction with product or service.
- * backlogs and where located
- * records of high cost, waste, excessive errors

SUPERVISORY SELECTION POLICY

- * qualification requirements
- * experience and training background of present supervisors

OBSERVE

MORALE FACTORS

- * personal friction
- * buckpassing
- * complaints
- * inattention to work
- * leadership not held by appointed leader (the supervisor)
- * supervisory ineffectiveness in providing subordinates with sense of worth, belonging, and security
- * lack of supervisory support of subordinates
- * authoritarian leadership
- * absence of sense of purpose and accomplishment
- * etc.

JOB KNOWLEDGE

- * technical phases
- * administrative phases
- * supervisory phases

COMMUNICATION FAILURES

- * written and oral instructions misunderstood
- * failure of information to flow up, down, and across
- * inability to express, orally or in writing
- * semantic difficulties

POOR SUPERVISION

- * assignment of work
- * planning and scheduling
- * instructing subordinates
- * handling grievances
- * lack job pride
- * poor coordination
- * inadequate recognition
- * failure to motivate

JOB APPLICATION

- * putting knowledge and skill to work
- * will to improve, self-development

The above factors overlap between groupings. Note the similarity between factors studied in needs analysis and those studied in the evaluation of training. This is because evaluation is the appraisal of how well training has satisfied found needs.

TRAINING NEED IDENTIFICATION

Based on --

As discovered by --

To determine --

Employees

A. Asking -- Supervisors
Top Management
Staff Offices

I. Analysis of Organizational Problems and Conditions

and

II. Analysis of Employees' Performance, Problems, and Potential

B. Observing -- Employees
Their Work
Work Flow
Relationships

Records and Reports
Public Reaction to
Service
Jobs (Job Analysis)
Organization
Structure
Program Plans
~~Organization Policies~~

C. Studying

1. What is the problem or situation that makes us want to do something?
2. What causes this problem or situation?
3. Exactly what do we really want?
4. What do we have now?
5. What do we lack?
6. Which of these lacks (needs) have greatest priority?
7. What can we do about them?
8. How shall we go about doing it?

A. COOPERATIVE EFFORT OF EMPLOYEES, SUPERVISORS,
MANAGEMENT AND TRAINING STAFF

6. General Guides

- Each group must identify its own training needs, in relation to its own situation and problems.

Requirements of operating programs should be the major determinant of training needs. Needs of individual employees must, of course, be considered and met - but within a framework of organizational needs. This requires study of organizational and operating problems as well as appraisal of performance and potential of individuals.

Training need identification is a line responsibility. Line officials must identify and analyze operating situations that need improvement, determine the changes required and decide what action will best accomplish those changes. Training Personnel can and should help them on methods and approach.

Officials at every level should participate fully, and employees should usually participate, in defining training needs. This is the best way to ensure that action is directed at real problems, and that training is a proper solution to those problems:

Conclusions about "The Answer" should be checked. Training isn't the best, or even an acceptable, solution to every production and human relations problem. Weigh carefully the probable success, cost, and administrative feasibility of other forms of action before deciding to train.

A clear statement of what training is expected to accomplish should be prepared, in writing and in advance. It will constitute the specific objectives of the training effort. It should be as specific as possible, to guide selection of training content and method and to be most useful in appraisal of training results.

Available training resources should be pinpointed on actual, pressing, agreed upon needs. The day of training for the sake of training, or because everybody else is doing it, should be long past.

Training need determination is necessarily a continuing process. Needs - organizational and personal - change constantly, are influenced by many things. It is necessary to keep checking, keep analyzing, keep revising specific training activities and goals, to keep them related to actual problems and current needs..

SUMMARY-GENERAL METHODS OF NEED DETERMINATION

METHOD	ADVANTAGES	LIMITATIONS	DO'S AND DONT'S
INTERVIEW	Reveals feelings, causes and possible solutions of problems as well as facts. Afford maximum opportunity for free expression of opinion, giving of suggestions.	Is time-consuming, so can reach relatively few people. Results may be difficult to quantify. Can make subject feel he is "on the spot."	Pretest and revise interview questions as needed. Be sure interviewer can and does listen, doesn't judge responses. Do not use to interpret, sell, or educate.
QUESTIONNAIRE	Can reach many people in short time. Is relatively inexpensive. Gives opportunity of expression without fear or embarrassment. Yields data easily summarized and reported.	Little provision for free expression of unanticipated responses. May be difficult to construct. Has limited effectiveness in getting at causes of problems and possible solutions.	Pretest and revise questions and form as needed. Offer and safeguard anonymity. Use only if prepared to: - report findings, both favorable and unfavorable. - do something about them.
TESTS	Are useful as diagnostic tools to identify specific areas of deficiencies. Helpful in selecting from among potential trainees those who can most profitably be trained. Results are easy to compare and report.	Tests validated for many specific situations often not available. Tests validated elsewhere may prove invalid in new situations. Results give clues, are not conclusive. Tests are second-best evidence in relation to job performance.	Know what test measures. Be sure it is worth measuring here. Apply results only to factors for which test is good. Don't use tests to take blame for difficult or unpopular decisions which management should make.
GROUP PROBLEM ANALYSIS	Same as for interview plus: Permits synthesis of different viewpoints. Promotes general understanding and agreement. Builds support for needed training. Is in itself good training.	Is time-consuming and initially expensive. Supervisors and executives may feel too busy to participate, want work done for them. Results may be difficult to quantify.	Do not promise or expect quick results. Start with problem known to be of concern to group. Identify all problems of significant concern to group. Let group make own analysis, set own priorities.
JOB ANALYSIS AND PERFORMANCE REVIEW	Produces specific and precise information about jobs, performance. Is directly tied to actual jobs and to on-job performance. Breaks job into segments manageable both for training and for appraisal purposes.	Time-consuming. Difficult for people not specifically trained in job analysis techniques. Supervisors often dislike reviewing employees' inadequacies with them personally. Reveals training needs of individuals but not those based on needs of organization.	Brush up on job-analysis techniques, arrange special training for those who are to do it. Be sure analysis is of current job, and current performance. Review with employee both -- - analysis of job, and - appraisal of performance.
RECORDS AND REPORTS STUDY	Provide excellent clues to trouble spots. Provide best objective evidence of results of problems. Are usually of concern to and easily understood by operating officials.	Do not show causes of problems, or possible solutions. May not provide enough cases (e.g., grievances) to be meaningful. May not reflect current situation, recent changes.	Use as checks and clues, in combination with other methods.

7. Methods

a. Interviews

Better than any other device, interviews help those interested in training understand how people feel and why - understanding crucial to success of any effort to bring about change. They also demonstrate, in a personalized way, sincere interest in what people in the work group think.

One limitation of interviews is that they are time consuming and so can reach relatively few people. Also, they may be difficult to quantify, quantification usually requiring construction and use of some system for coding responses.

Interviews can be as informal as a lunch-table discussion of office problems in which one remembers what is said. Or they can be formal enough to involve a form on which is written down, on the spot, subjects' responses to a pre-determined list of questions.

Open-ended, nondirective interviews are more valuable than other kinds for getting at feelings and attitudes and at the causes of problems. But they yield less uniform and less readily quantifiable data than do controlled interviews. Results of the latter are easier to process but may not be as valid, for their very structure tends to restrict and to influence the responses given.

Naturally, the more skilled the interviewer, both in asking and in interpreting responses, the more valuable the data he will obtain. So try out your questions in advance and revise them if necessary to get them clearly understood; allow your subjects ample opportunity to talk, unhurriedly; concentrate on listening to what they are really saying; do not make "value judgments" on their responses; and do not use the interview to interpret, sell, or educate. In case you feel dubious about your interviewing skill: any information you get will be better than none, you will learn a lot in the process, and your interviewees will have an opportunity to contribute to the solution of mutual problems.

Direct questioning can identify certain training needs. Here is an extremely simple application of this method. A representative sample of both supervisory and non-

supervisory employees was visited by a "pollster." He asked one simple question: "What do you think your supervisor needs training in more than anything else?" Replies were recorded and tabulated, a frequency distribution took shape, and the company soon had an excellent picture of its supervisory training needs as seen by those supervised.

On the other hand, you may get more accurate and more useful information if you ask your subject about his problems, rather than what training he needs. On the basis of what you learn, you can then determine with him whether training is needed - and if so, what kind. For example:

Ask employees

- * How do you feel about your job here?
- * What do you like most about it? Least?
- * What part(s) of your job give(s) you greatest difficulty?
- * What is the effect of this difficulty - on you personally? on your supervisor? on the Department?
- * What is the cause of the difficulty?
- * In what aspects of the work do you most want to improve?
- * What are you actually doing to try to improve?
- * Do you need additional help? What kind? From whom?

Ask supervisors

- * What are the areas in which you most want your staff to improve?
- * What are the problems in these areas?
- * What is the effect of these problems on the Department programs?

What is it that you want your staff to be able to do that it does not now do as well as you would like?

- * What are you doing to help them improve? Do they need additional help? What kind? From whom?
- * To what extent do you agree with your employees' analysis (see above?)

b. Questionnaires

Written questionnaires are also useful tools for gathering information from which training needs may be derived.

Questionnaires can reach many people in a short time, usually at reasonable expense. Like interviews, they give people an opportunity to express their feelings -- in this case anonymously, without any of the embarrassment or anxiety which can accompany the more personal techniques. Well designed, they yield data that can be processed quickly and used statistically.

A limitation of questionnaires is that they get answers only to the questions that are asked, affording less opportunity for free expression of unanticipated kinds of responses. This puts a premium on knowing what to ask and how to ask it. For this reason, questionnaires are best constructed after a few intensive interviews have been made to provide a framework of content.

Questionnaires also have limited effectiveness in getting at causes of problems and the best courses of action to solve the problems. For this reason, they should usually be followed by a few intensive interviews.

Any questionnaire, like any interview, should be pretested and revised as necessary for clarity, adequacy of coverage, etc.

Anonymity must be safeguarded -- and participants must be confident that it will be safeguarded.

ONE CAUTION -- Questionnaires are mass communications media. They reach many people in a formal way, and these many people who check or write down their answers to your questions will

want to know what you find out and what you do about it. Use this technique only if you are prepared (a) to report your general findings to those who participate, and (b) to do something about your findings.

The Employee Attitude Survey is a specific application of the questionnaire technique. Such surveys usually include some questions bearing directly on training, and answers to other questions frequently produce additional clues on training needs. For example, see the following excerpts:

EMPLOYEE ATTITUDE SURVEY:

(date)

(Division, District, Residency, etc.) is interested in knowing how you feel about this agency as a place to work. We would like to find out what things you like, what things you feel like changing and what things you think would help make your work here more satisfying and productive. If you will answer these questions, we will have a better idea of how you feel about these things than we can get otherwise.

Mark only one answer to each question, unless you are asked to give more than one answer. You do not need to sign the questionnaire or otherwise identify yourself.

How do you feel about the importance of your work?

- Very important
- Important
- Of little importance
- Of no importance

What about the indoctrination or orientation given you by this agency?

- Never received any
- Not enough
- About right
- Of no importance

How about the training made available to you by this agency?

- Too much training
- About right
- Not enough

Do you think more training would help you do better work in your present job?

- No
- Yes

If yes, check which

- Training in agency policies, procedures and regulations
- Training in how to prepare agency correspondence
- Training in how to be a better supervisor
- Training in skills or subjects related to your work (either on-the-job or classroom training)

How well does your immediate supervisor plan the work of your department?

- There is no planning
- Occasional planning, but not well done
- Work is regularly planned
- Careful, systematic planning and follow-up

Do you like to be kept informed as to how well you are doing in your job?

- Definitely, yes
- I suppose I do
- Not especially; I know how I'm doing
- No

Do you know what your supervisor thinks of your work?

_____ Yes

_____ I think I do

_____ I'm doubtful

_____ I don't know

How much instruction do you get on new work or new methods?

_____ Do not need instruction

_____ All I need

_____ Almost as much as I need

_____ Not as much as I need

When a change occurs in your work, are the reasons for it explained to you?

_____ Always

_____ Usually

_____ Sometimes

_____ Seldom

To what extent does your supervisor encourage you to make suggestions?

_____ Often

_____ Sometimes

_____ Seldom

_____ Never

Do you feel that good suggestions get adequate consideration?

_____ Yes

_____ No

Does your immediate supervisor keep you informed about policies and practices?

_____ Always

_____ Usually

_____ Sometimes

_____ Seldom

The Supervisory Improvement Needs Survey technique appeals to many who fear that the usual employee attitude survey directs thinking too negatively. It is reported in successful use by such companies as the Texas Company, Crown Zellerbach Paper Company, and others. It is equally adaptable to surveying non-supervisory training needs.

Potential trainees are given a list of possible training subjects, with a brief description of content, and asked to indicate their top three preferences.

The advantage of this approach is said to be its positive and constructive emphasis, which gets the trainee thinking in terms of what he wants to help him do a better job, faster, or easier. It may, however, tend to limit the range of choices expressed by trainees, and it may influence them to choose subjects they think they ought to choose or that management wants them to choose.

The Slip Survey Technique is an interesting device which might be considered a form of questionnaire.

Potential trainees are called together in groups, given cards or slips of paper, and asked to record, as fast as the thoughts occur to them, what they consider to be their greatest difficulties on the job -- one difficulty per slip, expressed in "how to" form. That is, "how to discipline an employee," "how to write a report," "how to reduce the number of errors in my work." The slips are then collected, sorted, and analyzed for training needs. This technique gets a considerable amount of material in a short time. It may, however, be somewhat superficial and therefore needs to be supplemented by other methods.

c. Records and reports analysis

Management records and reports can also provide valuable clues to training needs. It is desirable, for example, to study inspection reports, personnel records (grievances, turnover, absenteeism, accident frequency and severity, tardiness, suggestions and awards, etc.), cost and production records, etc. Since such records seldom reveal causes of problems, however, they are best used as supplements to and checks on other kinds of need determination. They are, in other words, clues to be followed up.

d. Tests

Tests of various kinds may also be used in determining training needs -- and, once an area of need has been found, in selecting the employees to be trained. They can be especially helpful in determining whether the cause of a recognized problem is a deficiency in knowledge, or skill, or attitude and, therefore, what kind of action should be taken.

Performance or achievement tests are essentially means of sampling what employees know or can do, and can therefore help to locate areas in which more information or more skill training is needed. Aptitude tests indicate potential to learn or acquire information or skills in a particular area, and so are useful in selecting from among a group of employees those who can most profitably be trained. Trade information tests are used to determine levels of knowledge and skill in a variety of occupations.

It is true that tests sample learned ideas or facts or attitudes which may or may not be carried over into practice on the job. This does not, however, invalidate their usefulness as diagnostic tools. For unless the necessary knowledge, skills, and attitudes have been learned, they can hardly be applied on the job. And if they have been learned but still are not applied, additional training in what has already been learned but is not being applied is not a suitable remedy.

Special suggestions to those who would use tests as aids in diagnosing training needs:

- * Be sure that you know what the test actually measures, i.e., knowledge, or skills, or attitudes, and in what area
 - * Be sure that what it measures is relevant and important in the particular situation in which it is to be used
 - * Be sure that the results of the test are not generalized to apply to areas to which it is not relevant
 - * Try to cross-check the results (as with other methods).
- The Training Section can advise you about the availability and the value of specific tests for use in determining training needs.

e. Group analysis by the line

Group problem analysis, in which supervisors analyze together their problems, is an excellent means of determining training needs.

Groups of supervisors in a given Division, District, Residency, etc., for example, might get together -- with or without a training specialist -- to discuss their problems, to analyze the causes of these problems, and to decide what changes are necessary to solve the problem. Some of these changes may be accomplished through training, others through other management actions.

This process not only identifies training (among other) needs, but also builds a solid foundation of support for training decided on. (For it permits those immediately concerned both to establish the need for and help decide what training should be given.) In addition, the process itself is training which helps participants become more analytical in their study of problems, gives them an opportunity to raise questions, make suggestions, hear other participants' viewpoints and suggestions, and help each other.

Any staff man who participates in meetings like these can facilitate discussion, help members clarify their thinking, and advise on what training can and cannot do. But, again, he shouldn't make value judgments, and he should be very careful not to direct members' conclusions.

Such questions as those shown below and on page 21 might well be asked when this process is used at higher levels. Here it has the special value of getting top-level management agreement on what kinds of people are required -- agreement that becomes an invaluable guide to any training effort, especially where the qualities desired are not generally known or clearly understood. On page 23 there is a suggested outline for a single supervisor's self-audit of his program and its needs. This outline can just as easily be used as a guide for group "stock taking."

Group discussions of this kind may be quite extensive and detailed, requiring a great deal of supporting staff work. If this is not practical, they may be relatively simple. The important thing is that management go through the thinking process and reach realistic conclusions, based on the best available information, on the questions raised.

QUESTIONS FOR GROUP DISCUSSION BY LINE SUPERVISORS

Why are we concerned about training?

What are the problems that make us want to do something?

What are the results of these on our programs?
Our own operations? Our staffs?

What should be the objectives of our training program?

What do we really want?

What do we have now?

What do we lack -- as specifically as possible?

Which of these needs (lacks) are of greatest priority?

Which positions are of key importance to the success of our program?

What major responsibilities and duties go with these positions?

What technical and professional skills are needed?

What is the size of our need for replacements (present and reasonably foreseeable future) in these jobs?

What will be the result of any changes in objective or program?

What will be the result of any Departmental contraction or expansion foreseen?

What chain reactions will be set up by retirements from key positions?

What kinds of people do we want in these key positions?
What qualities and experience are needed to assure success?

What type of leadership do we want?

Do we need people with field experience? Line or staff experience, or both? Generalists? Specialists? Some of each? If so, in about what proportion?

What program attitudes do we expect?

How can we get these kinds of people?

Have we valid means of determining the presence or absence of the qualities and skills we seek?

How can we best appraise employees' performance potential?

What promotion lines do we need? For professionals? For supervisors and executives? For staff assistants?

How shall we decide what individuals should be developed for what purposes, and how?

What methods of development should we consider? How should we combine these to get best results? How can we improve the effectiveness of "training by experience?" What part should more formal methods play? At what stages? What can be obtained from our personnel and training staffs? elsewhere?

The supervisor who asks himself -- seriously and conscientiously -- such questions as those listed below will have a much clearer idea of his actual problems and needs and a greater ability to choose the best course of action.

QUESTIONS FOR ANALYSIS BY LINE SUPERVISOR

What was my program expected to accomplish when it was originally set up? By whom? In what length of time? Was this expectation realistic?

Does the need the program was established to meet still exist? Is it of the same nature, scope, intensity? What is the evidence? Do all those importantly concerned agree on this need?

What has the program actually accomplished in the last two or three years? Is this more or less than it was expected (by me, by my immediate supervisors, by the Department) to accomplish? Were these expectations realistic?

In what ways has the program been particularly successful? Why? In what ways has it been disappointing? Why?

Have any of the disappointments been due to personnel problems? What kinds of personnel problems? How serious? What is the evidence?

What kinds of steps can be taken to solve or to reduce the bad effects of these problems? What steps should be taken? How does my conclusion on this point compare with that of any group that may have made recommendations about or directly related to my operations or staff? Do available management data support my conclusions?

If training is one of the steps to be taken, exactly what could I expect it to accomplish? Is this expectation reasonable? Would the results justify the time and effort required to train? How can I check this?

f. Job analysis and performance review

Job analysis combined with performance appraisal is an excellent method of determining training needs of individuals. The process, briefly, is: determine the specific duties of the job; evaluate the adequacy with which the employee performs each of these duties; and locate significant improvements that can be made by training.

The list of duties can be obtained in a number of ways: asking the employee, asking the supervisor, observing the employee, surveying job description, etc. Adequacy of performance can be estimated by the employee but the supervisor's evaluation must also be obtained. This evaluation will usually be based on observation.

What does the supervisor observe? The employee, while he is working, the work produced; the employee's work relationships. The ease, the speed, the sureness, the safety of the employee's actions, and the way he applies himself to the job. The accuracy and the amount of completed work, its conformity with established procedures and standards, its appearance, and the soundness of judgment it shows. Any signs of good or poor communication, understanding, and cooperation among employees.

Such observation is a normal and inseparable part of the everyday job of supervision. Systematically recorded, evaluated, and summarized, it highlights both general and individual training needs.

Below is an adaptation of General Electric's form--one for each employee--on which the supervisor records results of this kind of job analysis and performance appraisal. On it he notes the responsibilities of each job and for each of these responsibilities: the factors of accountability, (performance standards), adequacy of performance, causes of any deficiencies, training (or other) action needed, and sources of help needed. Listed separately are those training needs which the employee can meet without help, those which can be met with the supervisor's help, and those on which

special assistance is required. These forms are reviewed by the central training office, which identifies and plans to meet special training needs.

(Name)		(Job Title)		(Organization Unit)	
RESPONSIBILITIES		FACTORS OF ACCOUNTABILITY		CURRENT PERFORMANCE	CAUSE OF DEFICIENCY
ACTION NEEDED	WHAT EMPLOYEE CAN DO	WHAT SUPERVISOR CAN DO	OUTSIDE HELP NEEDED	PRIORITY	

The Critical Incident Technique is a job analysis and performance evaluation device that places special emphasis on kinds of behavior that distinguish effective from ineffective performance. Only the major requirements of the job -- those that make the difference between success and failure -- are listed. Under each of these are brief descriptions, usually in checklist form, of observable on-the-job behavior. The supervisor checks the forms to record his observations of each employee's behavior, adding whatever explanatory note he feels necessary.

- * Isolate and list each individual duty of position.
- * Group related duties into a classified list.
- * Establish the nature of responsibility for each duty.
- * Estimate frequency, importance, and difficulty of each.
- * Evaluate the employee's performance on each.
- * Check as training needs any deficiencies which are significant and which can be corrected by training.

The Appraisal Panel method is being used increasingly to identify training needs of supervisors. It is essentially a process of supervisory observation and evaluation, supplemented by the observations and evaluations of others who personally know the appraisee and his work. The basic steps are:

OUTLINE OF APPRAISAL PANEL METHOD

Appraisal

Appraisal is the process of evaluating an individual's capacity (a) to perform in his present position and (b) for handling more responsible assignments in the future. In this system, appraisal is carried out by a panel composed of the supervisor and two or three others who are at his level in the Department. These other panelists are selected especially because of their knowledge of the appraisee.

Review

Review is the step in which the supervisor reports the findings of his panel to higher management authority. This step gives higher-grade supervisors an opportunity to:

- * Check on the adequacy of proposed developmental plans for the individual appraisees.
- * Assess the total human resources now and in the future.
- * Identify individuals with potential for more responsible positions.

Discussion

Discussion is the step in which the supervisor counsels privately with the appraisee on his strengths and weaknesses and tries to motivate the appraisee to accept a development plan.

Development

Development is the step in which the agreed-upon plan for fostering the appraisee's growth is put into effect. It is compounded of self-help, departmental support and guidance, planned work experiences, and formal education and training.

Analysis of Data

Regardless of the method by which information is obtained, it must be analyzed for training (and other) needs. This is a matter of reviewing, classifying, interpreting, and evaluating the data gathered and of judging what action will best solve the problems found.

In making this judgment, it is important to consider all the alternatives (including their costs, practicality, acceptability, and administrative feasibility) that might accomplish the desired result. Among the alternatives that should usually be considered are reassignment, separation, or training of employees; selection of different kinds or levels of talent; revision of work assignments, methods, equipment, or relationships; clarification or simplification of policy, structure, instructions.

If the decision is to train employees, it is important to determine as accurately as possible whether the changes needed are changes in knowledge, or skills, or attitudes -- and whose knowledge, skills, or attitudes. If employees do not know (lack of knowledge), cannot do (lack of skill), or do not care (lack of motivation), they are obviously unlikely to behave as management desires them to behave. But it is necessary to know which of these is the problem, in order to train effectively.

For example: If the trouble is that employees don't know what they are to do, they need information, not attitude training; pep talks on the importance of the Department's objectives are not likely to help much in this case. If they know but can't do, skill practice (or reassignment, or other action) rather than information is probably indicated. If they have the necessary job knowledge and skills but simply do not care, additional training in job knowledge and skills isn't likely to improve either their performance or their morale.

If all of these requirements are met -- if employees know, can do, and are interested in their work, but still do not behave as management desires them to -- we have a problem which cannot be solved by training these employees who aren't behaving as desired. It is then necessary to consider such questions as these: Are management's expectations reasonable? Do such practical limitations as lack of time, inadequate supplies and equipment, too many distractions and interruptions make the desired behavior impossible? Has management created an environment or situation in which the desired behavior would be rewarding?

These are things about which management -- line management -- must do something. And the focus of its action should most probably be the situation or the group in which the employee works rather than the employee whose behavior was the object of original concern.

All of these considerations, plus other practical ones like availability of staff and facilities must be kept in mind in analyzing the data and reaching conclusions. General Electric's Philosophy and Approach for Manager Development suggests:

Think ahead, before accepting the completeness and validity of the problem as presented.

Think whole, on the nature and relationships of the problem as realistically defined, and

Think through, to the far-reaching implications of the alternative courses of action or decision available, in exercising balanced judgment to make the best decision, in the light of the best information available at the time.

This thinking process should be a cooperative line-staff activity. The Michigan Survey Research Center's "Feed-Back" technique of handling survey data can help make it so. The Center's surveyors make oral reports of their findings, with some tentative interpretations and suggestions about possible causes, to groups of responsible management officials. These officials discuss and evaluate the findings, check the interpretations, and make their own judgments and decisions about the action to be taken.

Whether or not you use a Michigan-style feed-back, remember that the more responsible and representative the people who help analyze, interpret, and evaluate data, the sounder and more useful the results and conclusions are likely to be. While this process of cooperative analysis admittedly requires time and attention, it is your best safeguard against unjustifiable expenditures and preventable failures.

CHAPTER II

Meeting Training Needs

When training needs have been identified and agreed upon, it is time to consider training resources, administration, content, and method. A "reminder" of major importance:

- * Training goes on all the time, even in the absence of formal or planned programs.
- * Many training resources are available and ordinary administrative processes can be made to serve as very effective training methods.

Methods and Resources

The following points illustrate the rich variety of resources and methods that should be considered in planning to meet training needs, individual or group:

- * On the job Activities, e.g.
 - Coaching by supervisor or co-worker
 - Observing
 - Delegation
 - "Sending Upstairs"
 - Leading Conferences
 - Instructing Others
- * Broadened Experience, e.g.
 - Guided Experience
 - Job Rotation
 - Multiple Management Participation
 - Understudy or Assistant-To Positions
 - Participation in Policy Development and Work Planning
 - "Filling-in" for Associates
- * Group Training, e.g.
 - Orientation
 - Supervisory and Executive Development
 - Professional Training Programs
 - Skills Training Courses
 - Conferences, Seminars, Staff Meetings

- * Professional Activities, e.g.
 - Membership and Participation in Business, Trade, or Professional Organization Activities
 - Attendance and Participation in Outside Conferences, Conventions, Workshops
 - Reading
- * Outside Training, e.g.
 - School, College, or University Programs, or Courses
 - Correspondence Courses

The following list of major steps involved in planning and conducting training may serve as a guide for and as a check on the plans made for training:

Major Steps in Planning and Conducting Training

- * State the general purpose and the specific objectives of the training to be given.

If possible, indicate the direction and extent to which trainees' knowledge, skills, or attitudes are to be developed.

- * Decide on the approach to be taken in introducing training.

A safe rule to remember: Top management is not likely to approve training, other line officials are not likely to support it, and trainees are not likely to apply it on the job unless all of them see the training as a means of doing something they want done, in a way they think will succeed, and without too serious conflict with other demands important to them.

- * Organize for training.

Decide who will do the actual training and be sure that they can do it adequately. Decide whether training will be on or off the job, individual group; if group, whether seminar, workshop, conference, class, institute, etc. Decide whether committees will be used, who should be on them, whether they will be advisory, directing or operating. Provide for follow up to encourage on-job application of training.

- * Determine who is to be trained.

How many people. Ages, sex, special characteristics, general backgrounds, occupations, grade levels, training needs and interests, relationship to each other. Consider carefully how all of this is likely to affect the training.

* Decide on, develop, and organize training content. Sort established needs into related groups. Select or develop content appropriate to meet these needs, using such sources as supervisors and employees, manuals and other written instructions, pertinent literature, research findings, work materials, job analysis. Arrange this material in coherent order for learning.

* Choose the training methods to be used.

Use in balanced variety those methods that will satisfactorily achieve the desired purpose with the greatest simplicity and economy.

To increase knowledge, consider especially: assigned reading, lectures, guided discussions, demonstrations, self-tests. To improve skill, case studies, problem-solving conferences, job rotation, supervised practice on or off the job. To influence attitudes, consider especially: role-playing, demonstrations, case studies, problem-centered conferences, job rotation, movies, inspirational talks.

For any or all of these purposes, supplement basic methods with appropriate visual aids or devices and with follow-up discussion.

* Prepare instructional materials or guides and appropriate time schedules.

• See that all persons who are to give training are properly briefed and that they plan and prepare in advance.

* Make and clear detailed arrangements.

Arrange for trainees' attendance. Get space and equipment lined up, making sure that it is as ample, well-arranged and comfortable as circumstances permit. Be sure that everybody will be able to see and hear. Arrange for appropriate publicity, records and reports, recognition of trainees, etc.

* Give training.

Start and stop on time. Make sure that discussion is in terms trainees can understand. Relate what is being taught to what trainees are interested in. Encourage their participation. Allow few, if any, "sit-and-talk" sessions

to run longer than an hour or an hour and a half. Get trainees' reactions and suggestions, and those of discussion leaders or instructors.

* See that training is evaluated.

Chapter III of this pamphlet which discusses evaluation in more detail will, we hope, help in the development of better ways of evaluating training in your own situation.

EVALUATION1. The Nature and Meaning of Evaluation

Evaluation, some say, is the most essential and the most sadly neglected phase of training. Others consider it unnecessary or even undesirable. Everybody agrees that it is difficult, and some maintain that it's impossible. Most take the view that it is simply not done in the majority of the organizations.

The truth of the matter is that trainees and training activities, like all other employees and all other activities, are constantly evaluated. Evaluation of some kind, formal or informal, is the basis for practically all administrative decision and action, including decisions to establish, to abolish, or to change training programs. It is inherent in administration, and we cannot avoid it even if we try.

The question, then, is not whether to evaluate, but what to evaluate and how to do it better.

2. Evaluation is Judging

Evaluation is, quite simply, an appraisal or judgment of the value or worth of something.

It is not necessarily expressed in monetary or even numerical terms. It does not have to be based exclusively on objective evidence. (Even when definite facts and measures are obtainable -- and they are frequently not obtainable -- it is still necessary to interpret and make judgments about them, thereby compromising their presumed objectivity.). Objective evidence and measures are desirable supports for evaluation and should be obtained whenever possible, but they should never become substitutes for judgment.

All evaluations, by whatever method, are made by applying judgment to facts and evidence. A technically sound evaluation should be --

Valid

Based on evidence that is reasonably complete, accurate and pertinent.

Evaluate what it intends to evaluate.

Identify cause and effect.

Reliable

Arrived at by methods that produce reasonably consistent conclusions when different, but qualified, evaluators consider the same evidence..

3. The Purpose of Evaluation

The immediate purpose of evaluating is, usually, to find out how well we are accomplishing what we set out to accomplish, how well we are achieving the results we hoped for, but it is a sterile evaluation which stops there.

We have a reason for wanting to know how we are doing. This reason is a desire to improve, to find out at what points improvements should be made, and how they should be made. The ultimate purpose of evaluation is to obtain better information on which to make decisions, better information to guide efforts to improve. This view has been well set forth in Adult Leadership:

. . . . in the long march from authoritarian to democratic ways of life, evaluation has come to have an educational rather than a judicial purpose. We may evaluate not to reward or punish, but to help ourselves and others to set more adequate goals and to discover more effective methods of achieving them

If evaluation is to serve as a means of improving our activities, we need to go beyond the common conception that evaluation is merely finding out to what extent we are achieving the results we want. Finding out, for example, that a group of persons learning to type has only achieved an average speed of 50 words a minute instead of an expected 60 tells us that something is wrong. It does not tell us what is wrong, and therefore, gives us no clues as to how to bring performance up to expectations or whether the expectations were unrealistic.

The process of determining training needs is itself a process of evaluation. Through factfinding and appraisal, we identify problems that need to be prevented or solved, weaknesses that need to be overcome -- things that need to be brought "up to standard." We plan and carry out training to do this. Then, to find out "how we are doing," we repeat the factfinding and appraisal -- in short, we evaluate the situation again. Thus, we have a complete cycle: need determination (resulting from

evaluation), program planning, program implementation, and evaluation -- followed by replanning, reimplementation, and reevaluation.

If we accept this view, we can begin to see evaluation of training in its proper perspective. We train employees -- just as we maintain reference libraries, a selection and placement system, or a pay plan -- as a matter of good administrative practice, because management has certain needs which experience has shown such activities can help meet.

Evaluation of training, like evaluation of these other activities, should be designed not to justify its existence or to prove it "pays its way" but, rather, to ensure that training is used as effectively as possible in meeting management's needs.

4) Comparison with standards

Practically all evaluation involves comparison, whether conscious or unconscious, of facts and evidence with a standard of some kind. This standard may be implicit or explicit, clear or fuzzy, absolute or relative. Training standards will necessarily -- and not undesirably -- vary in kind, in definiteness and in tangibility, depending on the goals of the training. For a standard, according to the dictionary as well as common practice, is simply that which is "viewed as proper and adequate for a given purpose."

An evaluation standard is an operational definition of goals, stated in terms which provide a base of reference from which to determine whether the goals are achieved. A good evaluation standard will be:

- * Relevant to the purpose or goals of the activity being evaluated.
- * Acceptable to those importantly concerned -- the evaluators, the evaluated, and the users of the evaluation.
- * Definite enough to permit a determination that it has or has not been achieved.
- * Reasonable and possible of accomplishment.

We shall talk more about standards a bit later.

5. Three Practical Questions

There are three simple questions that can help keep our thinking about training evaluation practical and "on the beam." They are:

1. What changes in people or things or situations will occur if we accomplish our goals?
2. How can we tell whether these changes are actually occurring?
3. How can we tell whether they result from training or from something else?

Answering the first question -- what changes will be evidence of goal attainment? -- requires us to consider what data will indicate change. Many different kinds of data may be relevant, including some frequently unrecognized and even more frequently unpredicted. (One evaluator reports that while a vertically-structured supervisory training course apparently produced no change in the "top man," it did appreciably increase the tolerance of lower-level supervision for his behavior -- a result not to be lightly regarded!) While we can seldom specify in advance all the kinds of change that will take place if we achieve our goal, we can and we must specify what some of these changes should be -- and obtain data on them.

Answering the second question -- how can we know whether they are taking place? -- requires us to consider both sources and methods of obtaining data. These will be similar, in general, to those already described in Chapter I. That is, fact-finding and opinion-gathering processes of the same general kind used to define training needs and set training objectives will need to be repeated, but pin-pointed to the specific kinds of evidence expected.

Answering the third question -- are they the result of training? -- gets more complicated. It requires us to try to isolate training influences that might have produced a given change. Use of control groups or situations is the recommended method of doing this. Such groups can and should be used more frequently than they are, but they may be impractical or even impossible in some administrative settings. In such cases we must find other acceptable, even though not ideal, methods and be prepared to accept evidence as distinguished from proof.

Evaluation plans that will provide for getting answers to these three questions should be made when training is being planned. If needs are defined and objectives set on the basis of careful analysis of programs, operations, and people; if this analysis is participated in by those importantly concerned; and if this general process is repeated after training, the resulting evaluation will be adequate for most administrative purposes.

6. Major Steps

The major steps that should be taken in evaluation of training are outlined below, both to help us see the process whole and to provide a general guide for the more detailed discussion which follows.

MAJOR STEPS IN EVALUATION

With full participation of representatives of all groups importantly concerned:

1. **Develop Evaluation Plan:**
Decide what to evaluate.
Set evaluation standards, based on program goals.
Describe conditions and/or kinds of change expected or desired in people, things, or situations.
If possible, specify extent of change expected.
Determine what kinds of data will indicate change.
Develop sources and methods for obtaining and treating data.
2. **Pretest Plan:**
Try out plan on small scale.
Analyze results and revise plan as necessary.
Get any formal approval required.
3. **Collect and Analyze Data:**
Be thorough and systematic.
Collect both "favorable" and "unfavorable" data -- as much and as representative as practicable.
Try to relate cause and effect, recognizing that many factors may influence any given "result."
4. **Compare Findings With Standards:**
Correct for known distortions and biases.

If objectives were not achieved, determine why they are not.

Determine what improvements are needed in training, and what changes are required to produce these improvements.

5. Plan and Take Action Based on Findings:

We cannot overstate the importance of broad participation in evaluation, either as a basis for establishing a program or for appraising its effects. There is no better way to remove fear of evaluation; to ensure more accurate, acceptable, and meaningful judgments; to gain understanding of and cooperation with needed improvements.

7. Deciding What to Evaluate

Strangely, we are not always clear what should be evaluated. The results of a particular course? Immediate or long-range? In terms of changed attitudes, changed behavior, monetary savings, or what? The trainers' skill? The training process itself? As seen by whom? The overall training program of the Department? In what terms?

We can better determine what should be evaluated by asking, "who needs to know what, and why?" This is essentially a management decision, and it will necessarily vary with needs, priorities, interests, and objectives. Generally, however, it seems that--

The supervisor wants, and needs to know, whether the improvements desired as a result of training are actually made; whether training is done efficiently and economically; and whether training is being done in the areas of greatest need.

Training people want and need to know, in addition, whether and how the training process can be improved. This suggests the desirability of evaluating:

- * Scope and goals of the overall training program to help determine the extent to which training given is that which is most needed to further efficient operation and objective accomplishment, and what changes, if any, are needed in coverage and emphasis.
- * Organization and administration of training to help determine adequacy of provisions for training and whether training operates efficiently and economically.

- * The training itself
To help determine the extent to which trainees understand and accept what is being taught, and how the training process can be improved.
- * Results of training
To help determine the extent to which trainees learn and apply what was taught; the extent to which changes desired, as a result of training, actually occur and how improvements can be made.

Evaluation of training results -- the point of most tangible payoff -- is of particular concern to line management, especially immediate supervisors; it will usually be made jointly by these supervisors, trainees, and training staff.

How-to-do-it suggestions specific to each of these types of evaluation begin on Page 46.

A good overall training evaluation system will:

- * be technically sound, as described on Page
- * operate continuously and systematically.
- * employ various techniques, as appropriate to the situation.
- * be acceptable to the Department.
- * be administratively practical.

Such a system cannot, of course, be developed overnight. Evaluation should not be delayed until one is developed. The important thing is to get started -- wherever and however your own situation permits -- and then improve as you go along.

8. Setting Standards

Having decided what is to be evaluated, we must establish our evaluation standard. What kind of standard shall we use? The definition on Page 34 provides two important clues:

1. The standard must be something that is viewed as proper and adequate. It must be accepted -- generally considered -- as proper and adequate. It should be thus accepted not only by the evaluators but also by those for whom the evaluation is made.
2. The standard must be proper and adequate for its particular purpose. It must be appropriate and relevant to the goal, and it need only be as precise as required by that goal.

We said earlier that it is the ultimate purpose (goal) of training to further efficient operation and objective accomplishment, and there is much talk about the need to evaluate training in terms of "ultimate, rather than proximal, criteria."

The trouble is that the ultimate purpose of training is much too "ultimate" to be of practical help to the training planner, instructor, or evaluator. Training is only one of many factors importantly influencing efficient operation and objective accomplishment, and it is not reasonable to attribute success, or lack of success, in achieving that goal to training alone. The ultimate goal is also too general for practical usefulness -- unless we are willing to accept equally general evaluations.

"Efficient operation and objective accomplishment" is seldom, therefore, a suitable criterion of training success. We have to work with something less remote, something more specific, something which permits us to relate cause and effect a little more accurately -- something, in short, about which we can more practically make a judgment.

This something, expressed in operational terms, becomes our training evaluation standard. It may, as already suggested, concern the structure, staffing, and facilities for training, or the scope and emphasis of the training program. It may concern training as a process, or the results of training. It may be expressed in terms of changes in trainees or in terms of the extent to which these changes improve the situation training was designed to help improve.

At whatever level we decide to evaluate, we set standards by translating goals or objectives into descriptions of conditions, or kinds and amounts of change, that will be considered acceptable in the particular situation we are dealing with.

Naturally, the specificity and precision with which this can be done will vary greatly. The standard may be very precise, or it may be that any observable -- or even felt -- progress would be considered acceptable.

Ideally, we would translate objectives into definite, measurable terms, e.g., numbers, amounts, time degree, quality, etc., to be achieved. To determine progress in that ideal case, we would simply measure and compare the numbers, amounts, time, degree, or quality actually produced or achieved with that set in advance as our standard.

However, we rarely have this ideal situation. It is often impossible to translate objectives into specific, measurable terms. (Too little is known about work measurement and productivity; too little about education and training; too little about evaluation.) We may even find ourselves unable to specify in advance all the kinds of change that will indicate goal achievement, much less the precise amount that will be considered acceptable.

In such cases, it is meaningless to try to set standards in definite, measurable terms, even for the sake of making a more convincing or a more "scientific" evaluation. By so doing, we would allow evaluation to become an end in itself, rather than a means of obtaining better information on which to base judgments, and the results would be worthless for administrative purposes.

Fortunately, neither management nor trainees nor their superiors demand or expect precision in such cases. Fortunately, training staffs do not require precision to find out how training can be improved. Under such circumstances and until better methods are available, we can accept -- for administrative if not for research purposes -- less specific and concrete standards. In the case of human relations training for supervisors, for example, we can say that our objectives will be achieved if --

- * Most employees of trained supervisors express reasonable satisfaction with the supervision they receive.
- * Most trained supervisors believe that the training helped them better understand and deal with their employees.
- * Superiors of most trained supervisors believe that the training helped improve supervisor-employee relationships.

We can usually improve this kind of standard, however, by identifying in advance the specific aspects of the supervisor-employee relationship which training should help improve.

For example,

Supervisors' willingness and ability to listen to employees.

Supervisors' attitudes and actions in explaining the whys of office changes to employees in advance of the change.

Employees' confidence that supervisors will give fair consideration to ideas and suggestions.

Their confidence that supervisors will be just and impartial in recommending personnel actions and in maintaining discipline.

The freedom supervisors allow employees in planning and making decisions about their own work, within a prescribed framework.

Supervisors' willingness to delegate and their acceptance of the fact that with delegation there will inevitably be some errors that might not otherwise have been made.

Employees' feeling that their supervisors will "back them up."

Standards, in whatever terms and with whatever degree of specificity expressed, are likely to represent:

- * The expectations or requirements of management, on the logical assumption that training should meet management's needs.
- * The expectations or requirements of trainees, on the logical assumption that unless training also meets what trainees feel to be their needs, it is not likely to be applied effectively by them in meeting management's needs.
- * The recommendations or requirements of experts or authorities, on the logical assumption that organizations, programs, or activities which meet recognized requirements of good practice are generally more likely to succeed than those which do not.
- * Some combination of these.

9. Developing Sources and Methods of Treating Data

Having stated as specifically as possible that changes are expected to result from training, we are ready to determine what kinds of data will indicate change, how and where to obtain this data, and how to treat it when it has been obtained.

Going back to human-relations training for supervisors, for example, we could decide that we would accept any or all of these kinds of data:

- * General impressions of superiors, fellow supervisors, employees, staff officials.
- * Reports from any of these sources on actual incidents involving, or actions taken by, the supervisors.

- * Superiors' ratings of supervisors' performance.
- * Observed behavior of the supervisors on the job.
- * Scores on supervisory judgment tests.
- * Records on {absenteeism
suggestions
turnover
grievances} in the supervisors' work groups.
- * Results of attitude surveys among the supervisors' employees, etc.

As already suggested, we can gather this kind of information from the same sources and in much the same ways described in the section on identifying training needs. The evidence sought, however, must now be pinpointed to the specific training objectives and standards we established in advance.

The data gathered should be as complete as practical considerations permit, and it must include all reasonably available indicators of both success and lack of success.

Once the data has been gathered, the extent to which training objectives have been achieved can be judged by comparing the findings with the previously established standards.

In addition:

- * To obtain more accurate and precise estimates of the amount of change made, we can compare the same kinds of data for trainees before and after training. } "before and after"
- * To help determine whether any changes found are due to training or to something else, we can compare the same kinds of data for trained groups and reasonably comparable untrained groups in the same environment. } "matched controls"
- * to help determine relative effectiveness of various training methods, devices, timing, instructors, etc., we can compare the data for successive groups of trainees exposed to the same training content presented in different ways. } "successive groups"

10. Pretesting the Plan

After the evaluation plan has been developed, it should be pretested, approved, and put into effect. Since most of the

operations involved in this process have already been discussed elsewhere in this pamphlet, they will be dealt with only very briefly here.

The evaluation plan decided on should be tried out first on a small scale, to make sure that it is practical, that it obtains the kinds of data required, and that it can be interpreted in meaningful terms.

Interview or questionnaire forms, for example, should be used on a trial basis with several representative people, and the evaluator should check carefully to see that the questions are clear, easily understood, and productive of the kinds of facts and opinions about which information is needed. He should also check to see how the responses can be reported and what kind of code, if any, may be required to classify and summarize them.

After necessary revisions in the plan are made, any formal approvals required for its use should be obtained.

11. Collecting and Analyzing Data

The data collected must, of course, be relevant to the objectives of training and it must, as we have already emphasized, include data on all of the changes which training was intended to produce. It should be as comprehensive as practical, and it should be drawn from sources that are representative. It should be systematically recorded. It must include all reported or discovered evidence, both favorable and unfavorable. It should also include any available clues that will help relate causes and effects.

Do not overlook the information available in management reports and records -- but use it with caution, remembering that it usually shows results without indicating causes.

Summary and classification of the data should be very carefully done. If a coding system is used, different people should code an identical sample of the data independently, then compare results and resolve any discrepancies found. Thereafter, spot checking of the coding will usually suffice to insure a reasonable degree of consistency.

12. Comparing Findings with Expectations

When the data have been collected and summarized in a reportable form, the findings can be appraised. As we have been emphasizing

throughout this booklet, there should be widespread and representative participation in this appraisal. It may be desirable simply to report the unappraised facts, possibly with some tentative suggestions about relationships and possible implications of these facts, to groups of those people most importantly concerned, and let them make the appraisal by comparing the findings with the standards that had been set. This is the feedback process mentioned in Analysis of Data on needs (Page 27).

All of the observations made in that section are equally applicable to analysis of evaluation data, for as already suggested, need determination and evaluation are two sides of the same coin. Those observations will not be repeated here, but it is suggested that they be reviewed as a basis for:

13. Planning and Taking Action on Findings

Analysis and appraisal of evaluation findings in the manner we have been discussing not only indicates how well training objectives are achieved but also what changes are needed to make training serve management needs more effectively.

The pages which follow contain charts, samples, and descriptions to help stimulate your thinking about ways of evaluating training and to illustrate how the various plans and methods we have discussed can be applied to evaluation of

- * Scope and goals of the overall program.
- * Organization and administration of training.
- * The training process itself.
- * The results of training.

HOW-TO-DO-IT SUGGESTIONS AND SAMPLES

TO EVALUATE SCOPE AND GOALS OF OVERALL TRAINING PROGRAM

Look for evidence on --

- * definite plan of action for the training of employees
- * definite provisions for determining training needs and assessing progress
- * needs met, problems solved or lessened
- * needs not met, problems not solved or lessened
- * reasons for and consequences of training not given
- * attention to future as well as current needs and problems
- * efforts to encourage employee self-development
- * etc.

As revealed by --

- * review of management policies and directives affecting employee training
- * reports of surveys, studies, inspections by management staffs, personnel inspections,
- * analysis of management data
- * check on plans for future expansion, contraction, shifts in program emphasis; significant changes in organization, functions, methods
- * analysis of training results and their impact on the organization
- * etc.

And compare findings --

- * with standards representing the judgment of

-- experts
-- management
-- supervisors
-- employees
as to what the training program should be



in order to obtain better information on which to base such judgments as:

- * Is the training that is given actually needed?
- * Is it the training that is most needed?
- * Does it attempt to meet future as well as present needs?
- * Are significant needs not being met? Why? What should be done about it?
- * What changes, if any, should be made in the scope and goals of the overall program?

SUMMARY EVALUATION, SCOPE OF OVERALL TRAINING PROGRAM

Action priority	Evaluation			Need Established by	Remarks
	Rating	Based on	Need		
	Top				Item to be evaluated (to be determined administratively within agency except when prescribed by outside authority) Need determination plan Evaluation plan Action program: orientation supervisory executive development safety Clerical and office (specify kinds) Professional, scientific, technical, (specify kinds) Skilled trades (specify kinds) Other (specify kinds)
	High			Order or regulation	
	Moderate			Personnel records	
	Low			Inspection reports	
				Other management data	
				Check future plans	
				Employee judgment	
				Supervisory judgment	
				Executive judgment	
				Not needed	
				Not given	
				Excellent	
				Satisfactory	
				Weak	
				Observation	
				Management directives	
				Personnel records	
				Inspection reports	
				Other management data	
				Check future plans	
				Employee judgment	
				Supervisory judgment	
				Executive judgment	



TO EVALUATE ORGANIZATION AND ADMINISTRATION OF TRAINING

LOOK FOR EVIDENCE ON --

- * general attitude of management (all levels) and employees toward training
- * delineation of line and staff responsibility for training
- * understanding and acceptance, in practice, of these responsibilities
- * provisions for ensuring that obvious training needs (e.g., orientation, preparation for supervision, instruction on new work) are met
- * how system for determining training needs and evaluating training actually operates
- * kinds of training given and not given, in relation to needs, climate and resources
- * training competence of line officials
- * adequacy (number, type, quality) of training staff
- * adequacy of space, equipment, other training facilities

AS REVEALED BY --

- * observation and inspection of training
- * study of organization structure and assignment of functions
- * statements of employees, supervisors, top management
- * inspection and audit reports
- * follow-up reports on personnel processes
- * review of background and performance of training staff
- * check on financial provisions for training
- * check of management policies and instructions
- * etc.

AND COMPARE FINDINGS --

* with standards representing the judgment of --

experts
supervisors
top management



in order to obtain better information on which to base such judgments as:

- * Is the training function clearly assigned, recognized, and accepted in the organization?
- * Are line and staff responsibilities properly delineated, with adequate provision for coordination?
- * Are there reasonably adequate and appropriate space, equipment, materials and facilities for training?
- * Is the training staff adequate?
- * Does training actually get done as planned?
- * What changes, if any, need to be made in organization and administration of training?

EVALUATION OF ORGANIZATION AND ADMINISTRATION
OF TRAINING

Item to be evaluated (add others appropriate to specific situation)	Excellent	Satisfactory	Weak	Inapplicable	Kind of data used as basis for judgment in evaluating	Remarks and observations
<ol style="list-style-type: none"> 1. Is there a clear statement of training policy? 2. Have resources necessary to implement it been provided? 3. Is line responsibility for training recognized? 4. Is enough staff assistance on training provided? 5. Is delineation of line and staff responsibilities understood and accepted? 6. How effectively are line and staff training efforts coordinated? 7. What is the level of competence of the training staff? 8. What is the level of training competence of the line? 9. What is the general attitude of management (all levels) toward training? 10. What is the general attitude of employees toward it? 11. How well are orientation and induction accomplished in actual practice? 						

12. How effectively are such resources as staff conferences, job rotation, guided experience used in meeting training needs?
13. How adequately does the plan for determining training needs operate?
14. How clear are the goals of the training that is given?
15. How carefully are plans for training made?

TO EVALUATE THE TRAINING PROCESS

LOOK FOR EVIDENCE ON --

- * clarity of training goals
- * relationship of training to trainees' needs, interest, capacity
- * relevance of training to the problem to be solved
- * comprehensiveness of content in relation to objectives
- * variety and appropriateness of training methods
- * interest to prospective trainees
- * use of accepted teaching-learning theory
- * adequacy of physical accommodations
- * provisions for follow-up or check on application of training

in each training course or program

AS REVEALED BY --

- * observation of training groups
- * statements and recommendations of trainees and their supervisors
- * inquiries and reactions of potential trainees
- * analysis of trainees' backgrounds
- * analysis of training goals, content, methods
- * etc.

AND COMPARE FINDINGS --

- * with standards representing the judgment of
 - experts
 - trainees)
 - supervisors

* for successive groups of trainees give the same general training content in order to obtain better information on which to base such judgments

- * Is the content relevant to the problem training is intended to resolve?
- * Is it comprehensive enough?
- * Does it require active, position participation by trainees?
- * Does it provide experience and practice as well as information?
- * To what extent does it tie in with trainees' personal needs and interests?
- * What changes, if any, should be made to improve the effectiveness of the training process?

TRAINEES' EVALUATION OF PROGRAM

(To evaluate trainee reaction to a student-trainee program)

1. How did you become acquainted with the student-trainee program?
2. What was the nature of your summer assignment?
3. (a) How interesting was your assignment?
Very Much ___ Quite a bit ___ Somewhat ___ Very little ___
(b) In what ways did the assignment interest you?
(c) In what ways was it uninteresting?
4. (a) To what extent did the work utilize your professional knowledge?
To the limit ___ Quite a bit ___ Some ___ Not at all ___
(b) How did the work utilize your professional knowledge, if at all?
5. (a) Was the experience of any value to your professional education?
Definitely ___ Probably ___ I doubt it ___ No ___
(b) How was it of value, if it was?
6. How familiar did you become with other programs and responsibilities of the agency?
Very familiar ___ Fairly familiar ___ A little ___ Not at all ___
7. In what ways, if any, did the work increase your interest in a career in the agency?
8. Making allowance for the temporary nature of your assignment, mark the point on the following scale which best characterizes your feelings about the summer's experience:

1	2	3	4	5	6	7
Little Value						Highly Valuable
9. How can the program be improved?
10. Are you interested in further employment with this agency after you complete your professional education?

GUIDE FOR OBSERVATION OF OFF-THE-JOB TRAINING

(Conference or discussion type)

	Outstanding	Satisfactory	Needs help	Not applicable	Remarks
1. Was training based on a survey of trainee problems and needs?-----					
2. Did trainees know subject of session in advance and come prepared to present problems and suggestions?-----					
3. Was objective clear to both instructor and trainee?-----					
4. Was material organized to provide step-by-step progress in thinking?-----					
5. Did session result in carefully thought out solutions to problems considered?-----					
6. Did trainees contribute to group thinking?--					
7. Was instructor successful in recognizing key points and in getting group to recognize them?-----					
8. Was discussion concrete and practical and did it avoid straying into abstract?-----					
9. Did instructor establish friendly give-and-take relationship within group?-----					
10. Was subject adhered to and digressions avoided, even those that were interesting but irrelevant to the subject?-----					
11. Did session move forward without waste of time?-----					

GUIDE FOR OBSERVATION OF OFF-THE-JOB TRAINING

(Conference or discussion type)

	Outstanding	Satisfactory	Needs help	Not applicable	Remarks
12. Was training effective in getting at real causes of trainees' difficulties?-----					
13. Did instructor help trainees to formulate general principles for use in solving problems similar to those discussed?-----					
14. Did instructor express his own ideas clearly to group?-----					
15. Did instructor draw upon previous experience of trainees to help solve problems?----					
16. Was appropriate reference made to related previous training?-----					
17. Etc.-----					

EVALUATION OF ORIENTATION PROGRAM

Your looking-back-on-the-program observations will be of real help to the Course Director in planning future programs and in getting them presented as effectively as possible. Will you, therefore, answer the following questions fairly and frankly? You need not sign your name.

1. Is it your overall reaction that the program has been:
 No Good Mediocre Good Very Good Excellent
2. Which sessions did you consider best?
3. In what way(s) do you feel the program as a whole will be of value to you?
4. (a) In what way(s) was the program weakest?
(b) What specific practical suggestions can you offer to help overcome these weaknesses?
5. What do you especially like about this agency?
6. What do you especially dislike about it?
7. (a) Have any of your opinions or attitudes been changed in the course of this program? Yes No
(b) If so, which and in what way?
8. Have you any additional ideas, suggestions, or comments about the program? If so, please let us have them here:

COURSE DIRECTOR'S EVALUATION OF ORIENTATION

What is your rating of the program for each of the following items?
Circle the appropriate number.

	Very low	Low	Aver- age	High	Very high
1. Physical arrangement and comfort-----	1	2	3	4	5
2. Group orientation-----	1	2	3	4	5
3. Group Atmosphere-----	1	2	3	4	5
4. Interest and motivation-----	1	2	3	4	5
5. Participation-----	1	2	3	4	5
6. Productiveness-----	1	2	3	4	5
7. Choice of methods-----	1	2	3	4	5
8. Communication-----	1	2	3	4	5

COMMENTS:

What to consider under the items listed:

1. Physical arrangement and comfort:
 - a. Did the seating arrangement contribute to informality and to group participation in the discussion?
 - b. Could members see and hear each other clearly? Were distracting noises and unnecessary interruptions avoided or eliminated?
 - c. Were the chairs comfortable?
 - d. Were the ventilation, heating, and lighting arranged for maximum comfort?
 - e. Were the activities and rest periods well timed for comfort?
2. Group orientation:
 - a. Did group members understand the purpose for which they were meeting? Do they know the meaning of "orientation"?
 - b. Did group members understand clearly what they were to do and what they could expect from the leader?
3. Group atmosphere:
 - a. Did everyone feel free to ask questions, express his ideas, agree or disagree?
 - b. Was the situation made comfortable for shy people to speak up?
 - c. Were group members given a feeling of friendly acceptance or was the atmosphere cool, indifferent, or hostile?
 - d. Did the procedure tend to be formal or informal?

4. Interest and motivation:
 - a. How interested were group members?
 - b. Did the discussion carry into the breaks and continue after meetings?
 - c. Was there evidence of any serious thought being given to the programs and problems discussed?
 - d. Did interest and understanding remain relatively high, or was it low much of the time?

5. Participation:
 - a. Were all members of the group involved in what was going on?
 - b. Did all members make some contribution?
 - c. Did the leader and the more active members make it easy for the less vocal members to take part?
 - d. What was the quality of the participation? Were group members really digging into the topic?
 - e. Did the leaders get the suggestions, ideas, comments of the group on questions which came from the group?

6. Productiveness:
 - a. To what extent did the program add to the knowledge, or favorably affect the attitudes, of its members?
 - b. Did members get something which they feel will be useful?
 - c. Did they seem to feel that the objectives, programs, and activities of the agency are important?
 - d. Did they appear to appreciate how their own activities contribute to agency programs and objectives?

7. Choice of methods:
 - a. Were the methods used the best that might have been chosen?
 - b. Would other methods have saved time, made for greater interest, more participation, produced greater understanding?
 - c. Were methods varied to fit particular purposes and situations, or was the same method used for everything?
 - d. How well were the methods adapted to the experience and competence of the group?

8. Communication:
 - a. Did speakers and group members speak clearly, and loudly enough so everyone could hear?
 - b. Were ideas expressed in words which everyone could understand?
 - c. Were speakers and group members trying to communicate ideas, or were they trying to impress others with their knowledge?
 - d. Were the examples chosen to illustrate points the kind with which most group members were familiar?

FACTORS TO CONSIDER IN INSTRUCTOR APPRAISAL

THE GOOD INSTRUCTOR	LOW		AVERAGE		HIGH
1. States title and objectives of the session.....	1	2	3	4	5
2. Motivates students.....	1	2	3	4	5
3. Explains new words and terms.....	1	2	3	4	5
4. Uses practical, everyday examples to clarify points in the lesson.....	1	2	3	4	5
5. Relates the instruction to other class or shop work.....	1	2	3	4	5
6. Uses instructional aids effectively..	1	2	3	4	5
7. Stimulates student participation.....	1	2	3	4	5
8. Checks frequently for understanding of things taught.....	1	2	3	4	5
9. Uses good questioning techniques.....	1	2	3	4	5
10. Keeps discussions on the subject.....	1	2	3	4	5
11. Sees that discussions reach a satisfactory conclusion.....	1	2	3	4	5
12. Stresses safety precautions.....	1	2	3	4	5
13. Varies methods to provide for most efficient presentation.....	1	2	3	4	5
14. Summarizes the session.....	1	2	3	4	5
15. Makes definite assignments (tells what, how, when, why).....	1	2	3	4	5
16. Provides references.....	1	2	3	4	5
17. Gives evidence that he knows the subject.....	1	2	3	4	5
18. Maintains interest of the class.....	1	2	3	4	5

19. Uses language appropriate to the group.....	1	2	3	4	5
20. Maintains good poise and bearing...	1	2	3	4	5
21. Has pleasant voice and easily understood diction.....	1	2	3	4	5

CHECK LIST FOR EVALUATION OF TRAINING

ITEM	NOT APPLICABLE	LOW HIGH				
		1	2	3	4	5
How appropriate is the training to the objective it is intended to achieve?...			1			
How clear is the objective, both to trainees and to those responsible for the training?.....						
How apparent to trainees is the importance of what is being taught?.....						
How closely related is it to trainees' needs and interests as they see those needs and interests?.....						
How clear is its relationship to their own jobs and responsibilities?.....						
How well is what is going on related to what trainees already know and understand?.....						
How appropriate is the method(s) to the objective and the content of training?						
How well is trainees' interest caught and held?.....						
To what extent do trainees have an opportunity to participate actively and personally in the training?.....						
How adequate is the discussion leader's knowledge of his subject?.....						
How able is he in clarifying and getting understanding of difficult problems and ideas?.....						
How effectively is the time that is available for training used?.....						
How well balanced are the theoretical and the practical phases of the training?.						
How smooth are the administrative mechanics of the program?.....						
How well can trainees see whatever is being shown?.....						
How well can they hear what is said -- both by guest speakers and by other trainees?.....						
How effectively are trainees' suggestions for improving the training obtained and used?.....						

How adequate are provisions for letting trainees know how they are doing at various stages of training?.....

To what extent is opportunity provided trainees to practice -- either with the group, on the job, or otherwise -- the things being taught?.....

How realistic is this practice?.....

What effort has been made to provide a climate which will encourage trainees to apply the training?.....

--	--	--	--	--	--	--	--	--	--

TO EVALUATE RESULTS OF TRAINING

LOOK FOR EVIDENCE ON--

- * knowledge of what was taught
- * interest in, understanding, acceptance of what was taught
- * on-job use of what was taught and reasons if not used
- * effect of training on such specifics as--
 - agency's operating problems
 - quality and quantity of work
 - public or customer satisfaction with product or service
 - supervisor-employee and/or work group relationships
 - employee will to work, pride in work, morale
 - agency's ability to attract and hold employees of the type and caliber desired
 - agency's ability to meet promotion, expansion, change-over staffing needs

AS REVEALED BY--

- * test scores
- * performance ratings
- * observation on the job
- * analysis of personnel records and reports
- * inspection and audit reports and recommendations
- * analysis of production, cost, and other management data
- * statements of trainees
- * statements of supervisors, staff officials, executives
- * etc.

AND COMPARE FINDINGS--

- * with standards representing the judgment of
 - trainees
 - supervisors
 - management
- * before and after training

- * for trained versus untrained groups
- * with definite measures, known or desired

in order to obtain better information on which to base such judgments as:

- * ~~How well did training succeed in producing the desired changes in employees' knowledge? skills? attitudes? behavior on the job?~~
- * To what extent did it resolve the problem it was designed to resolve?
- * If the desired changes did not occur, why not? (Had trainees the background and capacity required? Did the work situation permit and encourage them to apply the training?)
- * What other changes, if any, did it produce? Were they good or bad?
- * What changes, if any, should be made to get better training results?

GUIDE FOR EVALUATING INFORMAL ON-JOB TRAINING

ASK THE NEW EMPLOYEE:-

1. What is your job here? Or "Tell me something about your work."
2. Who helped you learn to do your job?
3. What does your Service do?
4. Who is your supervisor?
5. Where would you find the Department's personnel policy, appeal procedure, or information on conduct expected of a Department employee?
6. Do you have a copy of the Department's employee handbook?
7. What has been done to help you get acquainted?
8. What do you like most about your work?

ASK THE EXPERIENCED EMPLOYEE:

1. What is your job?
2. What does your work group do?
3. Who is your supervisor?
4. What does your supervisor do to help you?
5. What kinds of meetings do you attend?
6. What do you think of the State Employees' Life Insurance Program?
7. Would you do what you are doing differently if you had a chance?
8. What advantages are there to being an employee in the Highway Department?
9. Have you ever helped a new employee get started in his job?
10. How does your supervisor go about rating your work performance?

ASK THE SUPERVISOR:

1. What does your work group do?
2. How far ahead do you have your work planned?
3. What is your policy on granting leave to your employees?
4. How often do you talk with your staff as a group?
5. Who relieves you or takes your place when you are away?
6. How do you decide how well or how much work an employee should do?
7. Do you have performance standards for all employees you supervise? In writing? When and how do you discuss them with your employees?
8. What is your policy on handling a complaint from an employee?

APPRAISAL OF END RESULTS

Training Objectives	Information Sources and Appraisal Methods
1. Decrease in break-in time of new employee.	<ul style="list-style-type: none"> a. If some employees participate in a planned program of training and others do not, have supervisor record date when each reaches acceptable level of production. b. Determine average time required to bring trained workers and those who receive no organized training to an acceptable level of production.
2. Increase in production of an employee or group of employees.	<ul style="list-style-type: none"> a. Using production records, compare production of the employees or groups of employees before and after training. b. Compare production of trained employees with that of employees or groups that did not receive training.
3. Elimination of bottlenecks.	<ul style="list-style-type: none"> a. Compare production records before and after training. b. Determine number of man hours saved per month. c. Determine whether deadlines were met sooner by eliminating bottlenecks.
4. Curtailment of operational errors.	<ul style="list-style-type: none"> a. Use records of supervisors and inspectors on rejected work and salvage. Compare before and after training. b. Determine average number of rejects, errors or amount of salvage per worker before and after training.
5. Decrease in amount of time equipment is withdrawn from production for repairs and in cost of maintenance and repairs.	<p>Use maintenance records indicating number of hours per month equipment is in shops for repairs, and records showing cost of repair or maintenance.</p> <ul style="list-style-type: none"> a. Compute amount of time equipment is out of service for each worker or unit. b. Compare average repair time or cost per trained worker or unit before and after training. c. Show difference in production. Compare hours saved.
6. Decrease in accidents.	<ul style="list-style-type: none"> a. Using compensation records and records of safety engineer and health units showing frequency and severity of accidents, compare safety records for period before and after training. Also compare safety records of groups trained with those not trained to determine whether improvement can be traced to training. b. Determine cost of accidents for the two periods compared. c. Show cost of time lost.

- | | |
|--|---|
| <p>7. Introduction of new methods and procedures.</p> <p>8. Improvement in work habits.</p> <p>9. Increase in skill.</p> | <p>a. Compare, if possible, time needed by trained and untrained employees to adapt themselves to new procedures.</p> <p>b. Compare the effectiveness of the use of the new procedures made by the two groups.</p> <p>a. Compare supervisor's rating of work habits before and after training, based on rating guide for work habits which supervisors consider most important to performance of the job.</p> <p>a. Compare supervisor's ratings of skill as shown by operations or product produced before and after training. Rate skills at least one month after training is completed to determine retention.</p> <p>b. While increased skill is the immediate objective, the final results depend upon the application of the skills to improved production.</p> |
| <p>10. Improvement in attitudes or morale</p> <p>11. Improvement in judgment</p> <p>12. Decrease in reassignments or releases necessary because the worker does not meet requirements for production quality and quantity.</p> | <p>a. Compare before and after training the overt evidences of attitude or morale which indicated the need for training, for example, high rate of absenteeism or disciplinary actions required.</p> <p>b. Compare with similar group not trained.</p> <p>a. Use to measure the results the same criteria which indicated the need for the training; for example, the number of appeals from decisions.</p> <p>a. From CPO records of reassignments and releases and supervisor's statement of cause of each action, find out the number necessary because worker did not meet requirements for production quality and quantity. Eliminate all cases for which training could not be expected to solve the problem.</p> <p>b. Compare number and percentage of those who received training with those who did not, or compare turnover rate for this cause before and after training.</p> |

EVALUATION OF TRAINING

- Ask for samples and concrete examples where appropriate. Check:
- 1 -- If situation revealed is inadequate; e.g.; no plan exists, nothing is being done, employee doesn't know or understand.
 - 2 -- If situation revealed is satisfactory; e.g., there is some plan, something is being done, employee knows and understands.
 - 3 -- If situation revealed is highly satisfactory; e.g., there is a good plan, job is being done thoroughly and well.
 - 4 -- If question is not applicable.

Item	Rating				Action indicated
	1	2	3	4	
ORIENTATION					
<u>Ask the supervisor:</u>					
What plan does the office have for orienting new employees?.....					
Who does this orienting?.....					
What materials, assistance, and guidance are given those who do the orienting?.....					
What followup is made to ensure that the job is actually done?.....					
How is re-orientation handled when experienced employees transfer or mission changes?.....					
What changes, if any, should be made in orientation practices?.....					
<u>Ask a recent appointee:</u>					
How did you learn your way around when you first came to work here?.....					
What did other employees do to help?..					
What did your supervisor do to help you?.....					
What written materials were given you?					
How worthwhile do you consider the job of this agency?.....					
How does the work of your office help get that job done?.....					
Is this a good outfit to work for?....					
Why?.....					
Should anything be done differently in orienting new employees? If so, what?.....					

TRAINING FOR CURRENT ASSIGNMENTS

Ask the supervisor:

- What do your employees do as regular work?.....
- What do they have to know in order to do these things well?.....
- How do you go about seeing that they know and can do these things?.....
- How are the unusual or infrequent tasks taken care of?.....
- How do you go about improving your employees' performance?.....
- How effective do you consider these measures?.....
- How do you think employees feel about them?.....
- What resources and help from others do you use?.....
- What changes, if any, should be made to improve this training?.....

Ask an experienced employee:

- What is your job here?.....
- Why is it done?.....
- What do you have to know to do it well?
- How did you learn these things?.....
- What information and help do you get when work methods change or new assignments come up?.....
- How often do you discuss work and work plans with your supervisor, either individually or with other employees?
- Do you think your supervisor is satisfied with your performance?....
- Why do you think this?.....
- How do you know what improvements need to be made in your performance on this job?.....
- What changes, if any, would you suggest to improve the way employees learn to work here?.....

DEVELOPMENT OF POTENTIAL FOR THE FUTURE

Ask supervisor(s) of various levels:

- What plan does this office have for developing employees to replace those who will leave?.....
- How well does the plan work out in practice?.....

How do you spot employees with potential for development and advancement?

What do you do about them?.....

How are employees selected for training that is expected to lead to promotion?.....

How do you make sure that other qualified employees aren't overlooked?.....

How is the progress of trainees checked?.....

What happens after they complete training?.....

What effect, if any, do training activities have on your agency's ability to meet promotion, expansion, change-over staffing needs?

Ask several employees:

How do employees learn what experience and training are required for other positions?.....

What guidance and help in self-development is provided for employees?

Do employees here do much on their own to qualify themselves for advancement? What kinds of things?.....

What training is given by the agency to help employees qualify for greater responsibility?.....

How do employees get into these programs?.....

How well does the training work out?.....

How many employees who complete training -- on their own or with agency help -- get promoted?.....

IMPROVING SUPERVISION

Ask an experienced supervisor:

What does this office expect of you as a supervisor?

Do you have difficulty being this kind of supervisor?.....

What do you do about it?.....

What help do you get from your chief?.....

What aids to supervisory improvement (e.g., training courses, guides, special news letters) are provided by the agency?..

What help do you get from the training staff?.....

How are you kept up to date on things?.....

How often do you attend conferences with other supervisors in the organization?.....

Have you ever tried out on the job any of the new supervisory theories and practices you have read or heard about or seen demonstrated?.....

How did they work out?.....

What could the agency do that would most help you to become a better supervisor?.....

Ask his superior:

What do you look for when you select a new supervisor?.....

How do you judge these things?.....

What help do you have in making these judgments?.....

What do you expect the supervisors responsible to you to do, and what do you want them to be like as supervisors?.....

How do you get this across to them?

What is done to help them become this kind of supervisor?.....

What assistance on supervisory training is given you by the training staff?....

How often do you hold staff conferences with the supervisors responsible to you?.....

What do you discuss then?.....

How do they participate?.....

What has been done by this office during the past year to improve supervision?.....

Ask an employee?

How does a person get to be a supervisor here?.....

What kind of person do they seem to want the supervisors to be?.....

What is done to help them become that kind of supervisor?.....

How much information and help on supervisory practices do you think they receive?.....

What additional help, if any, do you think should be provided?.....

STRENGTHENING EXECUTIVE LEADERSHIP

Ask management officials:

- What has your organization done to analyze its manpower situation?.....
- What are the general findings and their implications for the future?.....
- What is being done about this?.....
- How current is your inventory of key positions and your data on actual and expected losses?.....
- How do you appraise performance of executives?.....
- What do you do about counselling them?.
- What do you look for when you fill executive positions in this organization?.....
- How are these qualifications judged and decisions made?.....
- How do you identify executive potential?
- What development opportunities--formal and informal--does your agency provide?.....
- for present executives?.....
- for potential executives?.....
- How is executive development tied in with recruitment at entrance levels and with training at lower and middle management levels?.....
- How is it integrated with normal operations?.....
- To what extent do you feel the executive development program is achieving its objectives in improving performance in present positions?...
- in helping meet promotion, expansion, and replacement needs?...
- Do you have a plan for your own development as an executive?.....
- How well are you able to carry it out?.

STRENGTHENING PROFESSIONAL LEADERSHIP

Ask professional employees (in addition to pertinent questions listed elsewhere):

- How does this agency handle attendance and participation in professional society meetings?.....
- How often do nonsupervisory professional employees go, at agency expense?.....

What seminars, lectures, and other professional training opportunities are available here?.....

What provisions are there for visiting other professional institutions?.....

What other steps have been taken to foster interchange of professional information?.....

What has the agency done to promote recognition of professional achievement by employees?.....