NATIONAL PARK SERVICE

Department of the Interior

TRAINING METHODS

FORWARD

The TRAINING METHODS MANUAL first appeared in 1956. It was written by Mr. Frank Kowski and Mr. Julius Eitington. Each, in turn, served as Training Officers of the National Park Service. It was revised by Mr. Eitington in 1967, and was reprinted six times. The present revision was authorized by Mr. Tom Thomas, NPS Training Officer, and was made by Mr. Julius Eitington, with contents reviewed by the Division of Training. Mr. Gerald Sheerin, Instructor at the Stephen T. Mather Training Center, was the editor and project coordinator. Ms. Shirley Foster served as editorial assistant and typist.

The Manual includes chapters in the field of Adult Training, as well as suggested forms. The binding of this Manual permits copying "handout" material for classroom use.

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NATIONAL PARK SERVICE

INTRODUCTION

The purposes of this Manual of Training Methods are three-fold:

1. To acquaint Service supervisors and instructors with general principles of instruction;

2. To familiarize them with the more common methods of individual and group instruction so that they will use the method most adaptable to the subject matter and to the particular group being trained; and

3. To offer an understanding of the basic tools of instruction so thay they can improve the effectiveness of all Service activities.

Emphasis is given to different methods of individual and group instruction. Too often there is a tendency to use an informal demonstration for individual training and a lecture to meet most group training needs. Other and better techniques are available and should receive increasing use as we become more familiar with them and more proficient in their use.

The supervisor who is responsible for training one or more employees may anticipate a challenging experience. In addition to the satisfaction from assisting in the development of the individual, they will realize that at the same time one is improving one's own capacities as a supervisor as well as an instructor. Individual training is a relatively simple process as opposed to the many approaches and methods of group instruction, but it nevertheless takes imagination, foresight, patience, and a high degree of understanding. In many job situations, in fact, there is no alternative to individual instruction. In any job situation there is some opportunity to use planned, individual on-the-job training.

Group training, however, is the training process which probably poses the greatest problem to Service instructors. Frequently, groups of people enter a job or otherwise have need to learn new knowledges or skills at the same time. In these circumstances group training is appropriate. Group training has distinct advantages and disadvantages. Under most circumstances it is an economical method. The per capita cost of group training is generally less than individual instruction, due in part to the economy of the instructor's time. Further, there is a psychological advantage to the group process of training. Not only do trainees learn from the instructor, but they learn from the experiences of other trainees as well. A form of "group dynamics" is at work in such a situation and frequently contributes as much or more to a training session than do the efforts of the instructor. Motivation of trainees may also be enhanced by participation with their colleagues.

Group training generally requires much more of the instructor with respect to planning, organizing, and scheduling. The instructional skill is also much more demanding. Further, there is a tendency for individual needs to be overlooked in the interest of providing for group needs. Then too, it is more difficult to evaluate the accomplishments of each member after the training has been completed.

The limitations of both individual and group instruction can be minimized through (a) selection of a method of presentation effective for that particular training situation, and (b) familiarity with how the particular technique can be used to best advantage. It should be recognized, however, that no one method of individual or group training will fit all situations.

Determining Training Needs

In order to plan training that will help promote effective and economical service, we must know how to recognize a training need as such. The following equation is often used to define a training need:

TOTAL REQUIREMENTS OF THE JOB	(minus)	EMPLOYEE'S PRESENT PERFORMANCE	(equals)	EMPLOYEE'S TRAINING NEEDS

Training needs are frequently identified by the realization that:

1. Employees are not performing up to acceptable standards.

2. New techniques must be taught to the employee group.

3. Efforts of employees will improve after a period of refresher training.

4. Certain deficiencies exist in job knowledge or skill.

5. Changes will be required in programs, work operations or job procedures.

6. New work programs will be undertaken.

7. Improvement is needed in attitudes, human relationships, or effectiveness of supervision.

8. Certain quantitative indicators such as accident reports, accident rates, turnover, complaints from the public, high cost of operation, indicate some training maybe necessary.

Some methods of identifying and isolating training needs are listed as follows:

1. Supervisor's observations - The supervisor is closest to the employee. He knows the employee's mental makeup, characteristics, special interests, hobbies, work habits, and accomplishments. By inspecting the employee's work and comparing it to acceptable work standards, deficiencies in quality and manner of performance can be spotted.

2. Asking the employee - Discussions with the employee in the normal course of supervision, at performance review time, and during career counseling may reveal some useful information. Employees leaving the Service sometimes are able and willing to make helpful suggestions.

3. Analysis of work records - Progress reports, accident data, attendance records, visitor complaints, turnover rates, etc., are invaluable.

4. Making use of job experience - The probationary period is considered a part of the examining process for determining an employee's training needs not only of a particular individual but of others to follow in the same line of work. As an employee is given new assignments, special details, and sent on field trips or special missions, his/her training needs are brought into sharper focus.

5. Use of planned training - The more the Service sees planned training as growth instead of as a corrective measure, the better management it can expect. To achieve this end, and to raise the level of efficiency progressively, requires a corresponding improvement in the quality of leadership at all levels. Planned training, such as supervisor training and management development, is therefore a continuous and urgent responsibility.

6. Management improvement studies - Studies by regional and area management improvement committees, field observers, and the like, often provide a rich source of information concerning present and future training needs.

7. Inspections - Reports of inspection submitted by Departmental, Regional, and Washington Office staff members, auditors, Civil Service Commission inspectors, and other individuals may point to the need of further training efforts. Inspection reports reflect not only the inspector's findings, but the recommendations are seasoned by observations in other field areas.

Is training really the answer?

To insure that training is really the answer to a performance deficiency, the professional trainer should recognize that people may not perform on the job for any one of three reasons:

1. Lack of knowledge or skill. If careful investigation indicates duties are not being performed properly because employees simply don't know how to do them, training may indeed be the answer. However, it may also be that the performance deficiency is due to....

2. Environmental factors. That is to say, some condition in the work situation maybe preventing proper performance; i.e., poor scheduling, time limitations, poor or improper equipment, etc. Under these circumstances training is hardly the answer. What is needed instead is to "re-engineer" the environment so that proper performance can take place. Or, the performance problem maybe due to....

3. Lack of proper motivation. If the deficiency is due to a motivational or attitudinal component, which means the employee can but "won't do," the solution again is not training. For example, if in the case of an accident situation, the incentive system rewards quick performance so that workers are encouraged to take unnecessary chances, we need to alter our incentives. Or if people perform indifferently since they are unaware of the consequences of their behavior, this deficiency can be corrected by feedback. In sum, if the deficiency is motivational, provide feedback (through coaching) or attach the proper rewards to the correct performance.

For additional information on the above concepts, see "Front-End Analysis," Training, March 1975.

Specifying Behavioral Objectives

Training is best defined as an "attempt to influence behavior."* But all too often training produces little impact on behavior. Why is this so? Simply because the trainer is concerned with his or her teaching as opposed to the trainee's learning.

The missing link in effective instruction is the need to state specifically learning outcomes. More specifically, these three steps must be taken by the trainer:

1. Prescribe terminal behavior. The appropriate question to ask is: "As a result of this training, what will the trainee be able to do?" Note that we are asking for a specification of actual trainee behavior or performance, not what we as trainers will do, or what we think the trainee will understand, or know, or think, etc. To make this vital point clear, the two lists below are presented:

Behavioral Objectives	Non-Behavioral Objectives
To operate	To understand
To erect	To appreciate
To weld	To think
To post	To imagine
To type	To empathize
To group	To acquire insight into
To cut	To develop a framework for
To listen	To apply concepts of
To edit	To give background about
To code	
To estimate (costs)	

*William McGehee and Paul Thayer, TRAINING IN BUSINESS AND INDUSTRY (Wiley and Sons, New York, 1961)

In sum, we need to specify end results which the training produces and can be easily evaluated. Conversely, we don't care about knowledge, ideas, concepts, attitudes, etc., which are lodged in the trainee's head but cannot be translated into concrete performance which is measurable.

2. Prescribe learning conditions. We also need to spell out the circumstances or conditions under which the performance or behavior is to take place. Conditions refer to the kind of aid(s) given (or denied) the trainee while executing the desired terminal behavior. Examples: using a compass; using a compass and a map with land tools only; from recall only; on wet ground; while working alone; etc.

3. Minimum level of achievement. This is the "plus" element, for here we are indicating the standard at which the behavior is to take place. This is specified in terms of quantity, quality, speed, or cost. For example: to type at 40 words per minute; to respond to complaints in 24 hours; to estimate with no more than a 2% variance.

Defining terminal behaviors, condition, and stardards are essential to ensure that we secure real "plus" from our training activities. It is also the only route to overcoming problems of training evaluations.

Guidelines for Adult Learning

The training process attempts to influence people to refashion, improve, and to frequently change specific aspects of their behavior. To do this, the process of training must create a variety of "conditions" most conducive to accomplishing the very difficult task of gaining trainee interest acceptance and understanding and thus changing behavior.

An insight into the way adults learn can help the trainer to do a better job. Research has exploded the notion that learning capacity dwindles rapidly as a person ages. It shows that adults can learn effectively at all ages. But it also shows that adults learn in their own way and this way differs significantly from the way in which children learn.

Some of the important facts that research has uncovered about the way in which adults learn included the following:

1. Adults must want to learn. Adults strongly resist learning anything merely because someone says they should. They learn effectively only when they have a strong inner motivation to develop a new skill or to acquire a particular type of knowledge. Their desire to learn maybe awakened or stimulated by outside influences, but it can never be forced upon them.

2. Adults will learn only what they feel a need to learn. Adults are practical in their approach to learning. They want to know, "How is this going to help me right now?" Sometimes they can be persuaded, through wise counseling, to learn things that will help them in the clearly foreseeable future--as for example, when they expect to get immediate benefits--when the knowledge or skill they are trying to acquire will be directly useful in meeting a present responsibility.

Furthermore, adults are not satisfied with assurances that they will eventually learn something useful from a course of study. They expect results from the first training session. They have no patience with trainers who insist on a lot of preliminary background, theory, and historical review. In short, material which maybe meeting the trainer's needs to educate, as opposed to the trainee's needs to learn, will encounter considerable trainee resistance.

If adults are to be taught something, they must be taught simply and directly. If they decide that the training has no relevance to their personal needs, they will become dropouts - physically, if the training is voluntary; mentally, if attendance is mandatory.

Before a trainer (or a supervisor) begins teaching a trainee (or a subordinate) all the things he feels the trainee (or a subordinate) should know, they should first find out what the trainee (or a subordinate) feels a need to learn.

3. Adults learn by doing. Studies have shown that adults will forget within a year at least 50 percent of what they learn in a passive way. But retention of new knowledge or skills is much higher if the adult has immediate and repeated opportunities to practice or use what he has learned. It is for this reason that consideration should be given to the use of group methods of training whenever practicable.

This finding also explains why on-the-job training is often the most effective type. It also underscores the importance of timing in all types of training. If it is possible to schedule one's learning experiences so they dovetail with actual operation responsibilities at each stage of one's career, the learner will have a chance to use what was learned before it is forgotten.

4. Adult learning centers on problems and the problems must be realistic. Adults can be taught a general rule or principle, and then be shown by a series of hypothetical illustrations how it applies to specific situations. But studies show that they will learn much faster if you reverse the process. Let them begin with specific problems, drawn from actual experiences, and work out practical solutions from which principles maybe deduced.

5. Experience affects adult learning. An adult's mental state is already pretty crowded. The learning must therefore be rational. The new knowledge must be related to, and integrated with, the accumulated results of a lifetime of learning experiences.

If the new knowledge does not fit in with what the trainee already knows, he/she is powerfully disposed to reject it. In fact, past experience may actually prevent one from perceiving accurately, let alone absorbing the meaning of newly presented data.

6. Adults learn best in an informal environment. Many adults have unpleasant memories of their school days. They will respond to adult training programs in inverse relationship to the degree they are reminded of their childhood experiences. Coffee breaks, informal dress, and perhaps smoking in class, provided it does not infringe upon or disturb others, give needed reassurance that there is nothing childish about their present engagement with the learning process. Again, group-in-action methods of training (i.e., brainstorming, role-playing, exercises, buzz groups, etc.) aid in achieving informality.

7. <u>A variety of methods should be used in instructing adults</u>. Research has demonstrated that learning proceeds most quickly when information reaches the learner through more than one sensory channel. That is why a movie, film-strip, a flip chart or other visual aids can do so much to heighten the impact of a talk or a conference. The trainer (instructor) who uses a scratch pad and begins drawing a diagram when they try to explain a complicated subject is displaying an intuitive grasp of this point. Other methods such as in-baskets, simulation (games), role-playing, small group work, etc., should also be utilized extensively.

8. <u>Adults want guidance, not grades</u>. Most adults are apprehensive about their learning capacity because they have been out of school a long time, and they have been assured repeatedly that "you cannot teach an old dog new tricks." If they are confronted with tests, grades, and other devices for comparative evaluation of their progress, they may draw back from the whole experience for fear of being publicly humiliated. Restrictions tend to recreate the "a secondary" class atmosphere.

At the same time, adult learners want desperately to know how they are doing. They need to know whether they are learning correctly before they can continue learning.

Adults tend to set exacting goals for themselves; often, they may bite off more than they can chew. They are impatient with their own errors, and easily become discouraged about their ability to learn; this means that they need as much praise as the trainer can <u>honestly</u> give them.

Laws of Learning

Successful instruction makes full use of the principles that govern the learning process. These principles have been discovered, tested, and used in practical situations. An instructor should become acquainted with them and use them at every opportunity.

1. The Law of Readiness (Willingness)

   A trainee will learn more effectively when he is ready, and willing to learn. To insure this, the competent instructor observes the following:

   a. Introduces subject matter by setting-up goals, creating interest, and showing value of subject matter.

   b. Provides for continuous mental or physical challenge.

   c. Realizes that we tend to do those things which we want to do, and we learn most rapidly the things which give us the most satisfaction.

2. The Law of Primacy (Right way first)

   Learning the right way first is easier than learning the wrong way, and then attempting to relearn. We learn a new step best when we have already learned the preceding step. In effecting this the instructor should:

   a. Prepare and use a lesson plan.

   b. Present subject matter in logical order, step by step.

   c. Practice for effective delivery.

   d. Know the subject matter thoroughly.

   e. Plan instruction so that subject matter is delivered right the first time.

3. The Law of Effect (Satisfaction)

   Learning accompanied by a pleasant or satisfying feeling is strengthened. One of the important obligations of the instructor is to set up the learning situation in such a manner that each trainee will be able to achieve some degree of success. More specifically, the good instructor will observe the following:

a. Select and present subject matter on the level of the class.

b. Recognize that trainees learn best when they can see evidence of progress.

c. Recognize and commend improvement.

d. Strive to develop accuracy before speed.

e. Give slow students opportunity to achieve success.

f. Realize that a satisfied learner gets into production on the job in a shorter time.

4. The Law of Intensity (Vividness)

The effectiveness of learning depends upon the vividness of the learning experience. To insure this the competent instructor will do the following:

a. Use training aids and other instructional devices.

b. Emphasize important points of instruction with gestures, showmanship and voice.

c. Make subject matter meaningful.

d. Make full use of the five senses -- hearing, sight, touch, taste, and smell.

5. The Law of Exercise (Repetition)

Effectiveness of learning depends upon the amount of repetition included in the learning process. To insure this, the good instructor will observe the following:

a. Repeat important items of subject matter at reasonable intervals.

b. Provide for application of subject matter as soon after instruction as is reasonably possible.

c. Use a testing device to secure advantage of repetition.

d. Provide the learner activity -- to let one perform the operation is a good way to be sure one knows.

Principles of Teaching

Good instruction is an involved process and must be approached only with adequate preparation and understanding. The application of sound principles will greatly aid one to become a more proficient instructor. Some of the more common principles are as follows:

1. A human being learns through sensations, commonly known as the five senses.

Sight--stimulated by light, objects, color, motion, etc.
Hearing--stimulated by sound, speaking, noises, etc.
Touch--stimulated by liquid, solids, heat, cold, etc.
Taste--stimulated by sweet, sour, etc.
Smell--stimulated by odor (closely related to taste).

It is a generally recognized fact that we retain about:

10% of what we hear
30% of what we read
50% of what we see
90% of what we do

2. A person learns most readily when he/she is able to associate new ideas with a nearest related experience. An instructor must determine beforehand what the learning base of the trainee is, or what previous experience the trainee has had as a foundation on which to build new ideas.

3. After maturity is reached, learning ability remains practically constant. Therefore, you CAN teach an old dog new tricks! Learning ability, even after maturity, can sometimes be increased if the interest and desire of the trainee is sufficiently stimulated.

4. Learning requires activity on the part of the learner. You cannot cram it down his/her throat if they are not receptive and active. Mental as well as physical activity must be planned in advance. Discussion, deliberate thinking, problem solving, and the opportunity to practice manual skills are only a few of the many types of activity which can be programmed in advance.

5. Friendly competition stimulates learning. When possible to do so, trainee groups should be given the opportunity to compete with each other. This practice stimulates on-the-job performance and often aids in developing speed and accuracy in a given operation.

6. Challenging problems stimulate learning. Opportunities should be created, wherever possible, to provide individual and group

problem solving opportunities. There is no better way of judging the effectiveness of instruction, nor of assuring the trainee that he/she has successfully learned that which was taught, than to have them demonstrate to themself and others that they can satisfactorily solve related work problems.

7. Knowledge of the purpose, use, and application of things learned makes learning more effective. If a trainee learns information, procedures, or skills which one does not know how or when to use, the instruction job is only half accomplished. The learner must have interest stimulated before instruction is undertaken by making them aware of how the subject matter will be useful, how and when it maybe applied, and how the work will become more effective because of it.

8. Knowledge of standards required makes learning more effective. An understanding of standards of quality, quantity, and performance are essential if the learner is expected to meet such standards in his work operation. Such an understanding enables the trainee to visualize better how the training received will benefit them in their performance.

9. Recognition and credit provide strong incentives for learning. It is human nature to react favorably to individual recognition. The instructor will encourage learners by being alert for signs of progress and making a favorable comment when such is evident. In the case of the slow learner, the instructor may have to look a little deeper for creditable accomplishments; but the recognition is doubly important to prevent discouragement.

10. Things should be taught the way they are to be used. It is frustrating to the learner if offered instruction which is difficult to comprehend. An instructor must analyze job needs and be sure that the presentation actually fits the work situation.

11. Effective learning is likely to occur when a logical relationship exists between things taught. In many teaching situations the logical order of presentation of instruction is the same as the order in which the job or operation is performed. In other cases it maybe different. In any event, the instructor should maintain some logical relationship between instruction previously offered and instruction to follow.

12. People learn more when they are held accountable and made to feel responsible for learning. Learners should be given the understanding that the content of the training activity will, in some definite way, assist them in job performance. They must also

understand that they will be expected to use the knowledge or skill acquired to their best advantage. They will thus feel a responsibility for learning and proper application of the instruction.

13. ENTHUSIASM AND ATTITUDES ARE CAUGHT-NOT TAUGHT!

Characteristics of a Competent Instructor

There is no single listing of personal qualities or characteristics which will assure competent instruction. However, a supervisor or instructor will do well to be guided by the following list of teaching attributes and skills:

1. Know well the job or subject one is to teach.

2. Be familiar with the best instructional methods.

3. Have confidence in one's ability to instruct.

4. Have an agreeable supportive personality. Give praise as warranted.

5. Be tactful in all instructional situations.

6. Strive to develop proper attitudes.

7. Have enthusiasm for the subject.

8. Be considerate of all trainee questions.

9. Assume the responsibility to help the learner to learn.

10. Have the ability to vary the approach to the subject as indicated.

11. Be patient with slow learners; avoid "putdowns" to all trainees.

12. Use of proper grammar, words, and pronunciation.

13. Have respect for the other person's opinion and background.

14. Have a sense of humor.

15. Be honest when one does not know the answer--and be willing to find it.

16. TELLING ISN'T TEACHING ANY MORE THAN LISTENING IS LEARNING!

As we review the above qualities, we see that characteristics of a good instructor are essentially the same as those qualities desired for almost any type of supervisory performance.

Classroom Atmosphere

Most individual and group training, except that performed on-the-job, is conducted in a classroom or a training center. In the interest of gaining maximum mental or physical participation it is necessary to establish an easy, informal classroom atmosphere. Trainees should be encouraged to relax and be comfortable. Adequate lighting and ventilation are important. Distracting noise or other disturbances should be minimized.

The training environment should be conducive to active participation by all. Seating arrangements are particularly important and are discussed on the following page.

The duration of training sessions must be carefully scheduled. Provision must be made for periodic breaks and given once scheduled. The old adage of "the mind can absorb only as much as the seat can endure" is as valid today as it was years ago--modern techniques and furniture notwithstanding.

There is a place for humor in training--providing that it is in good taste and not overdone. Laughter relaxes people and can be used occasionally to change the pace of a long narration. The experienced instructor will prospect the possibilities of telling a humorous anecdote about someone present, someone known to the group, or about themself to provide an opportunity for the group to chuckle and relax. However, putdowns" of others are taboo!

The training session following the lunch hour is the one which may prove the most vexing to the instructor. A movie should NEVER be shown during this period lest all trainees will doze through the film and gain little of its message. This hour of the day calls for a presentation which involves everyone fully.

Where both men and women are present in a training session, it is important that the instructor address the women regularly and focus upon their interest in the subject. In this Service, where women are often in the minority in training sessions, it is all too easy to develop a "for men only" atmosphere and lose the interest of the female participants.

Training sessions should start on time and close on time. Trainees will be more receptive to succeeding sessions if they know the agenda will be followed on schedule. Trainees will also show more interest if they know beforehand just what subjects will be presented and who else will be in attendance. To accomplish this, an agenda and a list of participants should be provided each trainee several days prior to the initial meeting.

Seating Arrangements

How the classroom is arranged is significant from two standpoints:

1. It has a direct bearing on classroom atmosphere and thus learning.

2. It communicates loud and clear the philosophy of learning which the trainer holds near and dear to their heart.

This is not to say that a training room must always be arranged in the same manner. Obviously if a lecture is to be given, a traditional classroom style is acceptable. However, the point being made is that our preferences for seating are related to our training style, and that as sophisticated trainers we should be cognizant how our training style may affect learning.

Room may be arranged auditorium-style. Generally, this is a "one-way" communication set-up.

Room may be set with chairs in a circle, with or without tables. This arrangement tends toward multi-way communications.

Class may be broken into teams and placed at individual tables. This grouping builds small-unit spirit and tends toward team competition.

Other variations may include small circles, horseshoes, wedges and squares.

Evaluation of Training

Training has been futile unless the learner (learns what was taught and) uses what was learned. The future of many training programs depends to a large degree on how well the training is evaluated. There are various techniques for evaluating training, and for our purposes evaluation will be considered in terms of four steps:

Step 1. Reaction.

Step 2. Learning.

Step 3. Behavior.

Step 4. Results.

Step One -- Reaction. Reaction relates to how well the trainee liked a particular program. Evaluating in terms of reaction is the same as measuring the feelings of the trainees. It is important to emphasize that it does not include a measurement of any learning that takes place. Evaluation by reaction is easy to measure, and that is why it is used so frequently by trainers and instructors. Listed below are guidelines for evaluating reaction.

1. Determine what you want to find out.

2. Prepare a form covering those items determined in No. 1, designing it so the reactions can be readily tabulated and quantified.

3. Obtain more candid reactions by making the forms anonymous.

4. Allow the trainees to write additional comments not covered by the questions which were designed to be tabulated and quantified.

The first step in the evaluation process is to measure the reactions to the training. Why? Because if they don't like the training or feel its a waste of time, the odds are that they will reject the learning. To evaluate effectively, trainers should begin therefore by doing a good job of measuring reactions (feelings) of people who participate.

When a trainer has analyzed the reactions and finds them to be very favorable, he/she can feel adequately encouraged. However, one should also feel humble because measurement has only begun. Even though one has done a masterful job of measuring the reaction of the group, one still has no assurance that any learning has taken place. Neither has one any indication that the behavior of the participants will change because of the training. And still farther away is any indication of the results that can be attributed to the training. Sample reaction forms are included at the end of this section.

Step Two -- Learning. There are several definitions of learning. For our purpose learning is defined in a rather limited way as follows: What principles, facts, and techniques were mastered by the trainee in the classroom? In other words, we are not concerned with the on-the-job use of principles, facts, and techniques. This application will be covered in Step Three related to "Behavior."

Guidelines to the amount of learning which takes place are these:

1. The learning of the trainees should be measured and stated quantitatively.

2. A before-and-after approach should be used so that any learning can be related to the training.

3. As far as possible, the learning should be on an objective basis. (See p.5 regarding terminal behavior.)

4. Where possible, a control group (those not receiving the training) should be used to compare with the group that received the training.

These guidelines indicate that evaluation in terms of learning is much more difficult than evaluation in terms of "reaction" (Step One). A great deal of work is required in planning the evaluation procedure, analyzing the data that is obtained and interpreting the results. Wherever possible, it is suggested that trainers and instructors devise their own methods and techniques. It is relatively easy to plan classroom presentations to measure learning where the program is aimed at the teaching of skills. Where relatively broad principles and concepts are the objectives of the training program, it is advisable to plan exercises and problem solving situations which permit application of what has been learned.

Step Three -- Behavior. If a person is going to change his job-behavior, these requirements are basic:

1. One must want to improve.

2. One must recognize one's own weaknesses.

3. One must work in a permissive climate.

4. One must have help from someone who is interested and skilled.

5. One must have an opportunity to try out new ideas and techniques.

Evaluation of training programs in terms of job-behavior is more difficult than the reaction and learning described in Steps One and Two.

A more scientific approach is needed, and many factors must be considered. Several guideposts should be followed in evaluating training in terms of behavioral changes:

1. A systematic appraisal should be made of on-the-job performance, on a before-and-after basis.

2. The appraisal of the performance should be made by one or more of the following groups (the more the better): trainees, supervisors, other employees, peers.

3. The post-training appraisal should be made three to six months after the training so that trainees have an opportunity to put into practice what they have learned. Subsequent appraisals may add to the validity of the study.

4. A control group (those not receiving the training) should be used.

For those interested in evaluating training in terms of behavioral changes, it is strongly advised that they seek the assistance and advice of statisticians, research people or consultants for help because very few trainers have the background, skill and time to engage in extensive evaluations.

Step Four -- Results. The objectives of most training programs can be stated in terms of results. Typical results are: reduction of costs, turnover, absenteeism, and/or grievances; increase in quality and quantity of work; improved morale or cooperation which, it is hoped, will lead to some of the previously stated results. From an evaluation standpoint, it would be best to evaluate training directly in terms of results desired. There are, however, so many complicating factors that it is extremely difficult if not impossible to evaluate certain kinds of programs in terms of measurable results. Therefore, it is recommended that trainers begin to evaluate in terms of the three criteria described in Steps One, Two, and Three.

Certain kinds of training are relatively easy to evaluate in terms of results. For example: typing, welding, reducing grievances, reducing accidents, improving safety records or improving pistol marksmanship.

Difficulties in the evaluation of training are evident at the outset in the problem technically called "the separation of variables;" that is, how much of the improvement is due to training as compared to other factors? This is the problem that makes it very difficult to measure results that can be attributed directly to a specific training program.

This section has two goals:

1. To stimulate trainers to take a penetrating look at evaluation. It should be clear that the future of training programs depend to a large degree on the trainer's ability to evaluate and to use evaluation results.

2. To suggest procedures, methods, and techniques for evaluating training. A trainer should begin by measuring in terms of reaction as described in Step One. A second step should be to evaluate in terms of learning as described in Step Two. The Third Step suggests ways and means of evaluating in terms of on-the-job behavior which should also be attempted. And finally, Step Four has covered some of the problems and approaches to measuring training in terms of its objective results. Trainers who read and study these four steps should be oriented on the problems and approaches to evaluate training.

EVALUATION QUESTIONNAIRE

The questionnaire is one method for evaluating training; however, it is limited primarily to Step One - the Reaction phase of evaluation. On the next several pages are sample questionnaires that have been used in Service-conducted training programs to obtain the participant's reactions to the training. The Service also has a form (10-135) which can be used to secure participant reactions.

In actuality, dozens of forms have been designed, perhaps hundreds. We urge your not developing too great a devotion for a form, for so many of these "forms" simply reflect "happiness" factors. What actual learning that may have taken place is an assumption, internalization, and ultimate use, still another aspect far-removed.

"Happiness" factors can be feelings of well-being, relief in being away, social considerations, a lift in experiencing a new friendship, in receiving recognition, and perhaps having been "chosen." A list by no means complete.

No matter how an evaluation form is designed, or how it tabulates out, it remains only an indicator. It should not be used alone as the full measure of a training event.

FINAL EVALUATION QUESTIONNAIRE

NATIONAL PARK SERVICE

MANAGEMENT DEVELOPMENT SEMINAR

The purpose of this questionnaire is to help us find out how you feel about the seminar--its strong points, its weaknesses, and what can be done to make future seminars such as this better.

We are mainly interested in the responses of the group as a whole; therefore, you need not sign this form

---

1. How would you characterize the physical facilities and arrangements (consider space, light, seating, acoustics, etc.)?

Not Sure___	Very Poor___	Only Fair___	Satisfactory___	Very Good___	Outstanding___

I would suggest the following to improve facilities and arrangements:

____

____

____

____

2. Were seminar objectives clear?

Not Sure___	Not At All___	To Some Extent___	Adequately So___	Very Clear___	Completely___

Comments:____

____

____

____

3. Were seminar objectives realized?

Not Sure___ Not At All___ To Some Extent___ Adequately So___ To A High Degree___ Completely___

Comments:____

____

____

____

4. If you were planning a seminar such as this, indicate (a) the extent to which you would use the techniques below and (b) rate their effectiveness.

	Re. Extent of Use			Re. Their Effectiveness				
Training Techniques	Decrease	Increase	No Change	Not Sure	Poor	Fair	Satis-factory	Consid-erable
A. Talks								
B. Group Exercises								
C. Skill Ses-sions (i.e., coaching, brainstorm-ing)								
D. Member-led Seminars								
E. Small-Group Breakdowns								
F. Films								
G. Article Handouts								
H. Cartoon Handouts								

Comments: ____

____

5. Regarding Agenda Subjects:

(a) Which subjects on the agenda might well have been eliminated?

____

____

____

(b) Which subjects were over-emphasized, time-wise? (Please explain your answer).

____

____

____

(c) Which subjects should have been treated <u>more</u> intensively? (Please explain your answer).

____

____

____

(d) Which subjects would you have liked to have had <u>added</u> to the agenda? (Please explain your answer).

____

____

____

6. Please evaluate the films you saw in the seminar.

(a)

FILM	Value to Seminar					
	Not Sure	Not At All	Minor	Adequate Amount	Considerable	A Great Deal
(1) "The Department Manager"						
(2) "How Good Is A Good Guy"						
(3) "Patterns"						
(4) "Eye of the Beholder"						
(5) "The Managerial Grid"						
(6) "Men At Work"						
(7) "12 Angry Men"						

Comments: ____

____

____

____

(b) Did the question sheets help to stimulate thinking and discussion on the films?

Not Sure___ Not At All___ Slightly___ Adequately___ Considerably___ A Great Deal___

Comments:____

____

____

(c) Did the breakdown into small groups help to stimulate thinking and discussion on the films?

Not Sure___ Not At All___ Slightly___ Adequately___ Considerably___ A Great Deal___

Comments:____

____

____

7. (a) In the course of the seminar were there any new ideas, points of view presented which particularly impressed you?

Not Sure___ No___ Yes___ If you answered "Yes," please cite example(s).

____

____

____

(b) If so, do you plan to apply any of them in your own park or office?

Not Sure___ No___ Yes___ If you answered "Yes," please cite example(s).

____

____

____

____

8. To what extent was the seminar of value to you in these managerial skill areas:

Managerial Skill	Not Sure	Not At All	Minor Degree	Worthwhile Degree	Considerable Degree
Developing Staff					
Problem Solving					
Decision Making					
Delegating					
Communicating					
Listening					
Conducting Conferences					
Conducting Staff Meetings					
Conducting Brain-storming Sessions					
Participating in Conferences and Meetings					
Introducing Change					
Motivating Staff					
Using Your Time As A Manager					
Human Relations (insight into feelings and motivations of people)					
Counseling					

9. What did you like best about the seminar?

____

____

____

10. What did you like least about the seminar?

____

____

____

11. Rate the benefits obtained from the seminar, in relation to the time you spent away from your job.

Not Sure___ Waste of Time___ Only Minor___ Adequate___ Considerable___ A Great Deal___

Comments:____

____

12. Length of seminar to achieve its goals.

Not Sure___ Too Short___ Too Long___ About Right___

Comments:____

____

13. Would you urge other Service managers to attend a similar seminar?

Not Sure___ No___ Yes___

Comments:____

____

____

14. Do you have any other suggestions or criticisms to improve the seminar?

____

____

____

PLEASE <u>DO NOT</u> SIGN YOUR NAME

PROGRAM EVALUATION

Your constructive criticism of this course is invited through this "incomplete sentence" evaluation method. Complete the following sentences by making each a complete thought. If you feel that a particular sentence does not apply -- skip it!

1. This course was . . .

2. What I liked most was . . .

3. The "handouts" we received were . . .

4. Organization of the course was . . .

5. Presentation of subject matter was . . .

6. The attitude of the instructors was . . .

7. Audiovisual aids (films, overhead projectors, etc.) were . . .

8. Assignments were . . .

9. The class discussions were . . .

10. If I were teaching this course I would . . .

11. I already had (some) (this) course material in the . . .

12. Compared with other courses I've been in this one was . . .

13. We spent too much time on . . .

14. We didn't spend enough time on . . .

15. The most significant idea I received from this course was . . .

16. Practical applications of concepts were . . .

Other comments: Include on the back side other aspects which you consider important and which you intend to be helpful in planning future courses of this nature.

END OF PRESENTATION EVALUATION FORM

Date____________________Topic____

Resource Person____

1. Were the objectives of the presentation made clear by the speaker?

   Not at all___ In part___ Very clear___

   Comments:____

   ____

2. If you found the speaker's objectives to be clear, to what degree were they met?

   Not at all___ Partially___ Completely___

   Comments:____

   ____

3. Were you interested in this presentation?

   Not at all___ Partially___ Very much___

   Comments:____

   ____

4. Did you acquire any new ideas, concepts or techniques?

   Not sure___ No___ Yes___

   Comments:____

   ____

5. Did you change any of your previous opinions as a result of this presentation?

   Not Sure___ No___ Yes___

   Comments:____

   ____

6. Were your previous opinions confirmed or strengthened?

Not sure___ No___ Yes___

Comments:____

____

7. Did this session prompt you to think in terms of putting a new idea or plan into practice "back home?"

Not sure___ No___ Yes___

Comments:____

____

8. Do you recommend that the speaker appear before other (future) NPS seminar groups?

Not sure___ No___ Yes___

Comments:____

____

(Please use the back if you wish to make additional comments. You need not sign this form.)

RATING SHEET

Name of Presentor______________________________

Topic______________________________

Aspect of Presentation	Check one:			
	Poor	Could be improved considerably	Good	Excellent
Clarity of Presentation				
Selection of Things Covered				
Degree to which held Interest of Audience				
Manner of Delivery				
Coordination with other Members of Presenting Group				
Evidence of Effort going into Preparation				
Apparent Knowledge of Subject				

METHODS OF INSTRUCTION

Before going into a discussion on the methods of individual and group instruction and how, why, and where to use each, we should stop for a moment to consider what it is that we are going to teach. In general, we teach knowledge, skills and attitudes. In presenting knowledge our purpose is to prepare the trainees to perform mental operations--to absorb theory, principles, facts, and acquire bits of knowledge from which they are later taught to select the right principle, fact, or bit of knowlege, and apply it to a given situation. Skills are taught with the purpose in mind of having the trainee be able to perform the job or operation independently when they are on the job.

Although for purposes of explanation we have drawn a line between knowledge and skills, we must recognize that one would rarely teach a skill which has no knowledge attached, or knowledge which is not applicable to performance. This means that knowledge and skills are frequently taught in the same lesson--and attitudes formed at the same time. One or the other may dominate, or there may be more of one but all are often there. Consequently, when selecting a method to use, an instructor generally does not select a method for a complete lesson, but frequently selects <u>methods</u> which will be most effective for the various parts of a lesson. He/she may have to develop an interest in the subject (attitude) first. Following this may come the basic principles (knowledge) on which the operations (skills) are based. In this kind of situation the instructor may use a number of methods.

There is a tendency on the part of some instructors to use certain methods because they happen to be new or in style, or because they are the only methods in which the instructor is proficient. Sometimes techniques are used without complete understanding of their purpose and the conditions to which they may be appropriate. The critique, for example, is an extraordinarily fine technique, but not for teaching Service policy to first-line supervisors. We would not use the Four-Step Method of individual instruction to develop proper attitudes. Techniques must be subservient to the aims of the training activity, the nature of the training content, and the character of the audience.

If there is something that requires telling to the trainee, tell it as clearly and as economically as possible. Use a lecture for a group and follow it with a discussion period to insure that the material has been understood, and to allow answers to questions arising from the presentation. Use charts, visual aids, and handouts.

If it is skills that are to be developed, teach the trainee how to perform the task. Tell and show; have him tell and show you; have him/her do it, insuring that they understand why the task is performed in a certain way;

and provide for practice under supervision. This method (the Four-Step Method) is generally used for individual training but can be adapted to the group situation with little difficulty.

If it is attitude modification, or personal growth, or human relations skill that is sought, provide the trainees opportunities to involve themselves in work-related situations through such techniques as role playing, critiques, or problem-centered conferences. Or thrust them into a challenging situation on-the-job, where they will find the answers because they have to find them.

Frequent reference to the following checklist will help the instructor to think of many other things which must be considered before selecting the methods to be used for a given program.

1. The immediate objective of the training.

2. The content of material to be presented.

3. The number to be trained.

4. The previous experience of the employees.

5. The previous education and training of the individual or group.

6. The nature of the employee's job.

7. The kind and amount of equipment available.

8. The ability of the supervisor and the instructor.

9. The length of time which can be devoted to training.

10. The previous training experience of the instructor.

In almost all methods of instruction, group as well as individual, there are four basic steps which must be accomplished in respective order to make learning most effective. The four steps are portrayed graphically on the following page.

LEARNING MADE EASY

HOW TO ACCOMPLISH

1. Ask questions
2. Cite examples
3. Cite personal experiences
4. Cite experiences from previous lessons
5. State future needs

PREPARATION

1. To prepare the mind of the learner
   a. Attract attention
   b. Arouse curiosity
   c. Create interest
   d. Stimulate desire

1. Give demonstrations
2. Explain procedures
3. Use visual aids
4. Develop discussions
5. Follow proper procedures
6. Emphasize key points & safety points

PRESENTATION

1. To present new ideas to learner
2. To give instruction

1. Have learner perform the job
2. Supervise performance closely
3. Check & correct errors
4. Develop correct habits
5. Check key & safety points
6. Have learner repeat operation if necessary

APPLICATION

1. To apply what has been taught in presentation
2. To practice application by learner

1. Have learner perform the job
2. Have learner perform the job over again
3. Ask prepared questions
4. Give written tests
5. Give performance tests
6. Develop drills
7. Develop discussions
8. Have learner teach another learner the same lesson

EXAMINATION

1. To determine if the lesson has been taught
2. To test the instructor and the learner

PURPOSE

The Four-Step Method

In WWII the influx of new workers into government and industry was enormous. Training them in a quick, efficient manner was essential. To meet this vital need, the Four-Step Method of instruction was developed. This method is still considered the best means of "breaking-in" the new worker or an experienced worker on a new task.

The Four-Step Method requires the instructor to recognize that there are two phases to good instruction: Getting ready to instruct and instructing.

1. Getting Ready to Instruct. Good instruction doesn't occur by chance. Rather, it takes careful planning. Each of the following steps is basic to proper preparation:

   a. Decide on the TERMINAL BEHAVIORS the learner must be able to do when the training is completed.

   b. Decide on the CONDITIONS or CIRCUMSTANCES under which the terminal behavior must take place.

   c. Specify the MINIMUM LEVEL of ACHIEVEMENT to be attained in on-the-job performance.

   d. Break down the job so that it may be taught logically on a step-by-step basis. Key points (make or break elements of the job) are to be identified for each step.

   e. Set a target date as to when you expect the proper skill level to be attained.

   f. Be certain everything in the way of space, equipment and materials is ready. Don't overlook special safety equipment if needed.

   g. Arrange the work place properly. This is your opportunity to set the right example at the onset and insure that proper habits develop.

2. Instructing. Here are the "plus" or "payoff" steps in proper instruction:

   a. Prepare the worker. Put the worker at ease so he or she feels comfortable to learn, doesn't feel embarrassed, etc. Find out what he or she knows about the work. Stress importance of the tasks to be performed to provide the right interest and attitude by the learner.

b. <u>Present the operation</u>. Remember, telling may not be enough. <u>Show</u> how to do it, too. Take one step at a time, stressing key points along the way. Exercise patience and report the operation and exploration as necessary.

c. <u>Test performance</u>. Have the worker execute the task(s). Watch his or her performance carefully. Ask the trainee to explain the key points. Avoid criticism of errors, merely explain or show again the right way to do the task. Provide praise, as appropriate, for correct performance. The goal in this step is to insure <u>independent</u> performance.

d. <u>Follow-up</u>. Check frequently for proper performance. This may be every few minutes or every few hours depending on the task(s). Provide help as needed. Encourage the learner to ask questions wherever confidence is lacking. Reduce instructional review as progress is apparent. Remember, if the learner hasn't learned, the teacher hasn't taught!

Coaching Method

This method of individual "on-the-job" training is based on the premise of interested supervision. It is effective in situations where a supervisor and a subordinate, or an experienced employee and a relatively inexperienced employee, are working together in a given job situation. The supervisor assumes the role of the "coach" and the newer employee often exists without either of them realizing it or attaching any particular significance to it. Yet, it is an ideal training situation and every advantage should be taken of it.

The supervisor, if aware of responsibilities as supervisor, should recognize the situation as an excellent opportunity in which to train the younger employee. The inexperienced employee usually is very receptive to suggestions and guidance of an older employee, and since it is personally advantageous to do a creditable job, will take full advantage of the training which is offered.

However, such an arrangement should not be done on a catch-as-catch-can process. The "coach" will have to do considerable planning so as to provide a wide variety of training opportunities. If this is not done, the "pupil" may find himself/herself working at routine operations week after week and only learning something new as occasional circumstances may permit.

The effective supervisor, in this case, will go out of the way to create training opportunities to foster job challenge for the newer employee. He will analyze work programs and projects which are coming up and will decide in advance just what training they afford and how it can best be effected. He will arrange to give the subordinate an opportunity to assist in planning and programming so that the subordinate will feel that a voice has been had in such activities, and thus may reasonably be expected to try a little harder to see that such plans are successfully accomplished. He will recognize the fact that job knowledge acquired at this point in the newer person's career will be associated with other knowledge which will be acquired later. He/she will also realize that training effort expended at this time in this manner will do much to increase the effectiveness of the subordinate's work--and indirectly his/her own.

Another advantage to the coaching situation is the probability that the supervisor is going to exercise care in the way he/she performs a given job. He will follow accepted procedures in the interest of showing the newer employee the correct way of accomplishing a task. This relieves, to a great extent anyway, the possibility that the newer employee will learn some bad habits from the supervisor along with the good.

Since the coaching situation is present in almost all phases of Service operations, it should be recognized as an excellent developmental opportunity and be given as much thought and encouragement as possible.

Charting Training Progress

Every Service supervisor has, at sometime or other, faced the problem of trying to recall what specific training an individual employee has received in the past. Too often, employees are retrained only because they happen to be a part of a group which may need retraining, not because they as individuals need retraining. Sometimes this situation cannot be avoided.

Training records on individuals are sometimes incomplete or nonexistent. In the case of an employee recently transferred to an area, it is almost impossible to determine with any degree of assurance just how thoroughly or broadly she has been trained without waiting for job deficiencies. become apparent.

While a checklist indicating training progress of an individual will in no way assure that competence in a given field of work, it will be a definite aid to the supervisor. First, it will indicate those basic fields of work in which the employee has or has not received formal training. Second, it may disclose that the training received was several years or more in the past and that the employee needs refresher training in newer techniques. Third, it might prevent a possible misassignment based on the belief that an employee was adequately trained for such an assignment. Fourth, it will assist the supervisor to take a more orderly and systematic approach to training in general.

Such a checklist has long been used in industry and government. It is not a complicated procedure and very little time is required to maintain it. It may take several forms. A single 8"x10-1/2" sheet of paper may be made out for each employee with a breakdown for each subject in which they are to be eventually trained. Or, a sheet or card maybe used for each training topic and the names of those employees completing the training entered thereon. The former method is generally the more satisfactory inasmuch as the usual need is to see what training an individual employee has received, rather than what individuals have been trained in a particular subject. Such a report of training progress could be transferred along with the official personnel folder in cases of promotion or reassignment.

A sample training progress sheet is shown on a following page.

The sample sheet is not intended to cover all subject matter in which a park ranger should be trained. Each area will have some subjects or conditions peculiar to the area in which training will be offered. The supervisor will also want to include mention of various formal courses and programs which the employee may be selected to attend. Training at outside sources should also be mentioned in brief. It should be apparent to all supervisors that such a compilation of training information will disclose strengths and weaknesses in an area training program and will be of valuable assistance in pointing up training needs.

Individual Development Plans

From time to time formal individualized plans are developed. In the past, one of these was called, "Plan for the Man." These plans are made to cover an extended period involving an individual either directed within a special program like the "Mid-Level," or "Departmental," or other programs of a broader nature involving Service personnel. The essential elements are as those in any objective: The plan should be realistic, have a strong possibility for completion, and should be mutually agreeable to the individual and organization.

When plans are drawn, certain "cultural" realities should be considered. Some of these factors, which can negate portions of a long-range plan, are overall modifications in organizational "thrusts," changes in specific course titles, emphasis being placed on certain Service disciplines by strong-willed persons in authority, additions to the system, and the availability of funds.

It is suggested, that in developing individual plans, the emphasis be placed on specific subject matter and directed to specific portions of a projected job-analysis. Qualifications and specifications for positions, as listed in X118 (FPM) can provide some assistance here in developing career training plans. The two following pages illustrate a plan based on the subject matter drawn from a job-analysis.

The individual record on page 42 and 43, while it could be part of a plan, is more accurately a record of training received for specific tasks drawn from a "job-analysis."

Note: For more detailed information, please see DEVELOPING VOCATIONAL INSTRUCTION, R. F. Mager & K. M. Beach, Jr., Fearon Publishers, Inc., Belmont, California.

RECORD OF INDIVIDUAL TRAINING PROGRESS

Name: JONES, Wilbur G.	Date EOD in NPS	10/15/68
Positions: Park Ranger GS-5 and 7	10/15/68	Stoney Broke NM
Supv. Park Ranger GS-9	3/08/71	Bumpkin Hollow NM
Supv. Park Ranger GS-9	5/03/74	Plentiful NM

PHASES OF WORK OPERATIONS	DATES TRAINED
NPS Objectives and Policies	10/18/68
NPS Organization	10/18/68
NPS History	
NPS Legislation	
NPS Regulations	10/18/68
NPS Uniform	10/19/68
Area Preservation	
Forest Fire Protection:	
Forest Fire Control Plan	11/23/68: 5/7/70: 5/13/73
Forest Fire Equipment	5/10/69: 5/13/73
Forest Fire Prevention	
Forest Fire Presuppression	
Forest Fire Suppression	5/10/69: 5/07/70: 5/13/73
Cooperation woth Other Agencies	5/10/69
Other (______________)	
Building Fire Protection:	
Fire Hazard Inspections	5/13/69
Building Fire Control Practices	5/13/69, Eastham F.D.
Building Fire Equipment	5/14/70, Regional Crse-Mather
Plant Diseases and Control	
Plant Insects and Control	
Fish Management	
Grazing	
Soil & Moisture Conservation	
Scientific Investigations	4/13/73
Boundary Patrols	12/05/73, On-the-Job
Safeguarding Govt. Property	3/10/74
Prevention of Damage to Park Features	10/20/74: 4/13/75
Wildlife Management	4/12/76, Albright 4 hrs.

PHASES OF WORK OPERATIONS	DATES TRAINED
Public Safety	
Hazard Inspections	4/13/70
Sanitation & Public Health	4/13/70: 5/07/72
First Aid	1/15/71: 2/07/71: 2/19/72
Search Activities	
Rescue Activities	11/15/73
Handling Emergencies	
Traffic Safety	
Accident Prevention	
Law Enforcement:	
Mechanics of Arrest	10/23/70: 2/15/72, State Police Sch.
Collection of Evidence	10/24/72
Preservation of Evidence	10/24/72
Court Procedures	10/25/72, Hq. Session
Conducting Investigations	10/25/72: 2/15/73
Handling Prisoners	
Highway Patrol Activities	5/13/70, 6 hr. detail
Law Enforcement Records & Reports	
Firearms	10/28/68: 2/16/69: 2/21/70: 2/1/74
Cooperation with Other Agencies	
Other (________________)	
Public Use	
Supervision of Public Use Areas	
Issuing and Enforcing Permits	
Entrance Station Operations	5/13/70: 5/15/71, Seasonal Tng. Prgm.
Information Center Operations	5/15/71
Handling Complaints	5/15/72
Handling Special Events	
Administration	
Supervisory Responsibilities	3/10/73: 10/22/75, Sup. Group
Public Relations (Visitors)	10/19/70
Public Relations (Neighbors)	
Training Responsibilities	10/22/72, Albright Detail
Budgets and Work Plans	
Recruiting & Selecting Personnel	
Private Lands Problems	
Tort Claims	3/10/70: 5/11/74
Care and Use of Equipment	10/23/75, Tailgate
Special Studies(Travel, Use, Etc.)	
Snow, Water, and Other Surveys	
Concessions Operations	
Other	
Area History	10/19/70, Tri-State Seminar
Area Policies	10/19/70
Area Regulations	10/19/70
Etc.	

Performance Review

The training value of performance review depends upon the supervisor's realization of its worth. We occasionally hear employees say, "I have no idea of how I'm doing in my job. My supervisor never tells me, one way or the other!"

This training situation, different from coaching, is afforded to a supervisor who generally does not work side-by-side with a subordinate. However, they are informed of the work of the subordinate through other supervisors, and by other means. From time to time, they call the employee into the office and informally reviews the individual's progress in the job. They may elect to let the employee do most of the talking during the first such meeting. He/she is interested in learning how the employee thinks he/she is progressing, how satisfactory the job is, what on-the-job training has been afforded, what other phases of the job the employee is interested in, and something about their career interests. This basic information enables the supervisor to plan the discussions for subsequent meetings.

On other and later occasions the supervisor may wish to review the job performance of the employee. Creditable ability and performance should be frankly recognized. Job shortcomings should be brought to the employee's attention in a constructive manner. This will retain pleasant personal relations between the two individuals, but yet offer some assurance of sound personal development. If the level of job performance is in need of improvement, <u>the supervisor and the employee together</u> should arrive at a plan wherein the employee will receive the training or be exposed to job experience which will relieve the shortcoming. The employee, thus being given a voice in such planning, will react more favorably to the subsequent corrective action. Obviously, this is not accomplished without a considerable amount of study and planning by the supervisor.

In addition to planning improvement on-the-job, the supervisor will become aware of other training opportunities which maybe effective; i.e., it maybe decided that committee assignments, job rotation, work details, understudy assignments may further improve the employee's capacities. they may recommend correspondence courses or other scholastic training which may be available. They may decide to plan with subordinate supervisors as to future development of the employee.

Candid performance review does much for both supervisor and subordinate. The supervisor feels secure in the knowledge that one is fulfilling one's obligations as a supervisor and can take a considerable amount of satisfaction in the intelligent development of subordinates. The employee, on the other hand, knows that a friendly and mutually helpful relationship exists with the supervisor and will thus be more receptive to future performance review discussions and training.

The dominant consideration in performance review is to make the employee aware of development needs and to create a positive interest in resolving any shortcomings.

Cross-Training

Cross-training is a planned program of exposing an employee to job experience which one would not normally receive in a current job assignment. In view of the broad scope of NPS operations, and of the limited opportunities some employees have for broad development in certain work situations, the technique of cross-training is extremely valuable in this Service.

A situation favorable for cross-training has to be created. One interested supervisor is not sufficient. Two or more supervisors must agree that the principle of cross-training is sound and that the benefits to be derived are worth the effort and time expended. After this understanding and agreement between supervisors, cross-training can become a recognized procedure within an organization and can be carried on with little difficulty.

Employees so assigned, whether it is a park naturalist in the personnel field, or a park ranger assigned to assist the park engineer, may come to their new duties with a relatively slight degree of skill in that particular field. The development of professional or technical skill is not the objective of cross-training. The real purpose is to develop an understanding of procedures and a realization of the importance and scope of the new field of work. This understanding and realization will do much to foster better cooperation within the organization, in addition to improving the development of the individual employee.

Supervisors must realize, however, that this technique requires interested supervision and they must make such provision. The employee may lack basic knowledge which must be developed before they can perform any useful function in a training assignment. This takes time and attention. The supervisor must be aware of this and be ready to devote the time necessary to make this type of training effective.

Employees who undergo cross-training not only gain valuable job knowledge, but frequently experience a change in attitude. They find that those in other job categories also must cope with like problems; that there is a certain validity to viewpoints held by employees in other segments of the organization; that there are ways in which they can assist these employees by doing certain things differently in their regular job assignment and that other functions and operations are also important in the over-all job of park management.

Cross-training, if used wisely and effectively, provides benefits to the organization far beyond the development of any single employee. We should use it more often.

Special Assignments

In almost all employment situations there arise occasional special assignments which some supervisor must undertake. These are generally somewhat different from the usual work performed by employees and can be used to good advantage as a training opportunity. Unfortunately, the common practice is for the supervisor to detail the same person or persons to such assignments time after time. The premise is that they have satisfactorily completed similar assignments and can thus be expected to handle them again in the same manner. Thus, after a time, the training value of such an assignment is lost.

Supervisors should remain alert to the value of special assignments for training subordinates. They should evaluate the training possibilities of such an assignment and decide in advance which employee is most in need of the experience which this assignment would afford. While it maybe true that some other employee may have previous experience along this particular line, they personally would benefit very little from a training viewpoint.

Special assignments may consist of compiling periodic reports, conducting investigations, making analyses of different situations, devising procedures for any number of purposes, conducting surveys of particular operations, or having responsibility for the completion of various work programs. All of these activities can provide worthwhile training experiences.

In these assignments, a certain amount of supervision is necessary. The employee may have to learn basic job knowledge before they can begin the assignment. The supervisor must provide this knowledge. The employee may lack the information as to how to proceed with the assignment. The supervisor must decide with the employee as to the procedural steps. The employee may not know where to go to obtain the information required. This too, must be explained to them.

While it may appear, in this case, that it would be simpler for the supervisor or someone else to complete the assignment, we must not lose sight of the training value of such an experience. It is entirely possible that the employee may take longer to complete such an assignment than would other employees, or that an approach to the situation might prove to be more uncertain. However, the gain in job experience to the employee and to the organization is worth the additional time spent. Special assignments must be looked upon as training opportunities which offer multiple rewards.

Acting Assignments

Acting assignments are a form of pre-supervisory training. They are not used for the new or relatively new employee. The objective of acting assignments is to expose the individual employee to work situations, generally in some supervisory capacity, so that he will learn "by doing." The possibilities of such assignments arise when regular employees are absent due to illness, annual leave, when they are temporarily detached from their scheduled duties for other reasons, or when a job vacancy exists before a final placement is made.

The benefits of acting assignments are many-fold. The individual employee gains valuable job experience which may also serve them well in later work. The supervisor benefits because such placements offer an opportunity to study how well employees perform in acting capacities. Certain strengths and weaknesses come to light which can either be taken advantage of or corrected. The remainder of the organization benefits in the knowledge that other employees will be similarly assigned when suitable occasions arise.

The supervisor will do well, however, to study such assignment possibilities with extreme care. He will not want to assign just any employee to the acting supervisory role and then forget him for the duration of the assignment. Such an employee, particularly if not ready for such a detail, might flounder and become frustrated to the point where his work might be affected adversely. The supervisor must keep in constant contact with such an employee and through coaching, keep him on the right track from day to day. Before such as assignment is made the supervisor will do well to have a talk with the employee and point out (1) why he has been chosen for the temporary detail, (2) how he can expect to develop himself through the experience, (3) the management details of the job or operation, and (4) a word of encouragement to do a good job. The supervisor may wish to have several follow-up meetings with the employee in the interest of giving additional information about the job, assuring himself that the job is being handled satisfactorily, suggesting modifications in the work situation, or merely offering the employee an additional word of encouragement and advice.

In this type of training situation a vexing problem is which employee to assign to the temporary job. One should not base the decision on seniority alone. The supervisor should study the subordinates to see which one can profit most from such an assignment and at the same time perform a creditable job. He may have some subordinates who have in other ways demonstrated their ability for supervision, or who may have already served in acting capacities. One should not always assign the same person to such training opportunities if there are others in need of development.

The success of such an assignment lies principally in the understanding between the supervisor and the employee that this is to be a training experience from which much can be gained. Thus, an acting assignment must be carefully planned, discussed, and observed. It should not be a casual or unplanned job placement.

It maybe expected that the employee will gain experience which should do much to develop them as individuals. He/she may for the first time, be responsible for directing the work of other permanent and seasonal employees. They maybe in a position to positively influence public and employee relations. They may have to resolve certain human relations or job situations which he would not otherwise encounter. They may be exposed to new phases of the job, either administrative or technical, which will do much to develop one's attitudes and viewpoints, as well as mature job judgment. They will undoubtedly learn that supervisors, too, have problems to face. In addition, they will appreciate the guidance and assistance offered by the supervisor and will be appreciative of this opportunity to demonstrate ability and acquire experience and job knowledge.

Understudies

An understudy is an employee who is preparing or being prepared to fill a more responsible position and to act for the superior during the latter's absence. In this sense the understudy type of training maybe similar to "acting assignments."

Competent understudies prevent job slow-up and forestall serious complications in the event of absence, resignation, promotion or transfer of employees holding positions requiring special training or experience. One of a supervisor's first responsibilities should be to select and train a competent assistant. The presence of understudies in any organization, even a small one, is an indication of good management.

An understudy's relationship to his superior must be intimate and confidential. All the important problems and situations with which the supervisor is faced should be freely discussed with the assistant. The understudy should be given a variety of experience in other employee's jobs. This will provide the opportunity for growth and a broad and basic understanding of all operations within the sphere of the supervisor's jurisdiction. If possible, she should be given a chance to sit in on supervisory and planning meetings, and to act as a working assistant, perhaps helping to break in new or seasonal employees.

Coaching plays a large role in the development of understudies. The supervisor must explain the principles and policies of the Service so that the understudy acquires a firm foundation for subsequent activities. Procedures must be explained in detail so the understudy will understand job relationships. Personal counseling on the part of the supervisor is necessary with respect to human and employee relations on the job. Special assignments may offer the understudy a valuable experience in problem solving.

To this extent understudy training maybe achieved through a number of the individual methods discussed previously. It maybe looked upon not so much as a method of individual training as it is a situation for individual training. From either viewpoint, however, it is included in this manual to acquaint supervisors with the value of such assignments in the hope that it will be recognized as a valid medium of employee development.

Committee Assignments

Committee assignments have much to offer in the way of training value. The benefits arise from the opportunity which the individual members have to review and resolve certain management or technical problems. We all can agree that there is no better way to become safety conscious than to serve on a Safety Committee!

Members of committees whose duty is to delve into Service problems cannot help but acquire a broadened knowledge of Service operations and policies. In addition, they develop problem solving ability in various fields. They learn to attach significance to otherwise obscure or seemingly unimportant phases of operations. They learn that a great deal of thinking and planning must go into a satisfactory resolution of some apparently simple situations.

Committees which exist in almost all offices and field areas are Safety Committees, Management Improvement Committees, Incentive Awards Committees, Sign Committees, and other committees which to some extent direct or coordinate various employee, community or civic affairs. Assignments to such activities should be rotated, in so far as is practical, to offer these experiences to as many employees as possible. The Incentive Awards Program, for example, would be better understood and would become more meaningful to the Service if more supervisors served on this Committee. Management improvement could become a more effective tool in Service activities if more supervisors could be taught to think along these lines.

Programmed Instruction

P.I., or Programmed Learning if we look at it from the standpoint of the learner, is used primarily for individualized instruction. It involves the presentation of small units of instructional material in a highly organized way called a program. Learning proceeds from the simple to the complex and is presented in "units." Each correct response results in an immediate reward: the right to proceed to the next unit, in P.I. these are called "frames."

P.I. has three major characteristics from the learner's standpoint:

1. The learner strives to acquire a specific form of learning known as a terminal behavior; i.e., how to solder a connection.

2. The learning process involves constant use of feedback. The trainee ascertains immediately whether his or her response to a frame is right or wrong.

3. The learning psychology used is that of reinforcement (or reward).

4. All learning is individualized so that one can proceed at the pace best for one. Thus, the slow and the bright learner are readily accomodated.

From the instructor's standpoint P.I. has these benefits:

1. Trainee progress is relatively easy to monitor.

2. Since the trainee proceeds to a good degree on his or her own, the instructor is free to provide help where most needed. In effect, the trainer becomes more of a tutor than a mass instructor.

3. The instructor (and administrators, too) can be certain all students really know all the answers, that all are proceeding at his or her pace, and that all trainees are subject to the same kind of material and standard of teaching. These conditions are rarely met in the conventional training situation.

4. It can serve as an adjunct or supplement to other forms of instruction.

The limitations of P.I. are:

1. The technique is most properly suited to master a skill or to acquire specific, limited forms of knowledge. Conversely, it is not too well suited for broad conceptual and attitudinal training.

2. Bright learners may get turned off by the step-by-step learning process. (Sometimes this is overcome by allowing the learner to "branch off" to other programs.)

3. New programs are costly to develop. Hence, the program must be developed for large numbers of learners. Also, revisions must be minimal to keep costs down.

SOME METHODS OF GROUP INSTRUCTION

The Lecture

A. Pointers for Trainers and Speakers. Lectures or talks are a means of providing trainees with information. With good planning by the speaker, new ideas can be communicated, interest in a topic may be aroused, and key points can be summarized.

However, lectures suffer from numerous limitations:

1. Relatively few speakers are skilled enough to maintain listener interest for more than short periods of time.

2. Since lecturing is a passive, one-way communication effort as far as the trainees are concerned, retention is likely to be low.

3. Most trainees are too polite to interrupt a lecturer who has much ground to cover. Or they maybe too shy to do so. Hence, items which are not clear maybe allowed to proceed without questioning.

4. It is difficult for the lecturer to develop a relationship with the trainees due to the limited time available, the one-way communication situation, the speaker's status, etc. Hence, much is lost by both parties.

Despite the weaknesses of the lecture as a teaching method, it will inevitably be used by many instructors. It is, therefore, essential to think of ways to liven lecture sessions. Here are some suggestions:

1. As a minimum, make certain you are well prepared. No one wants to have their time wasted by a rambling talk.

2. Try to use 1/3 to 1/2 of the period for questions. It may help to pass out 3"x5" cards for this purpose at the outset.

3. Use A.V. devices wherever possible. This will augment interest and help to reinforce key points. The overhead projector, slides and short vignettes from films are particularly helpful.

4. Try to add group-in-action devices to the talk; i.e., short cases or problems, buzz groups, listening teams, role playing, etc.

5. A good way to open is with a "quickie quiz." This forces thinking and involvement.

6. Use the question (Socratic) method to involve the group throughout the talk. (See page 104)

7. Handouts can help, too. These can be an outline of the talk, worksheets, a talk summary, etc.

8. Don't hesitate to use a flipchart or blackboard frequently, particularly to capture group ideas in response to your questions.

9. Avoid podiums or lecterns. They make for a stilted performance. Also, never read a talk; use 5"x8" note cards instead (slide these discreetly).

10. While speaking, move around a bit. Maintain eye contact, too.

11. After talking a while, pause and ask for a summary or key points. This will keep the audience alert and give you worthwhile feedback about "what is going on out there."

12. Ordinarily one gives a lecture to a group and feedback about its effectiveness, for obvious reasons, is not secured. However, in the training situation it is a practical thing to do. How is this done? Simply pass out an end-of-session evaluation form. Systematically tallied feedback from the trainees will help to strengthen your future talks.

B. Planning and Supervising the Lecture. Understanding the importance of the lecture method is not enough. A training officer or supervisor must know how to plan the lecture part of his program, how to select the proper lecturers and to create the kind of situations in which they can give their best. This means having a practical turn of mind and a willingness to attend to details.

Here are some guideposts for this:

1. Fitting the Lecture to Program Objectives. Every lecture should fit the program of which it is a part. Speakers should be scheduled only if they will contribute directly to objectives.

2. Selecting the Speaker. There are no hard and fast rules to be followed in selecting the speaker. Some speakers have a wealth of information, but have difficulty in presenting it. Some speakers are good small-group speakers; others are better before large audiences.

Such information can ordinarily be acquired by the training officer without too much difficulty. One of the best ways is to hear the potential speaker before inviting them. Another is to find out about them from persons whose judgment is trusted.

3. Paying the Speaker. The question will often be asked: Should the speaker be paid for services? The answer is ordinarily "yes" if they are from outside the organization.

It is "yes" if you want a superior effort from him. The offer of an honorarium, however small, is an indication to them that their services are really wanted; and he/she will usually try a little harder to please. Moreover, speaking is as much a commodity of certain professions as the giving of legal advice or the practice of medicine is to others, and should be thought of in this fashion.

4. Planning the Lecture. The guest speaker, whether from inside or outside the organization, wants to know not only what is expected from him, but also the nature of his audience, its size, the level of its development, and what has gone before (if this is a part of a series). It is the responsibility of the training officer to provide him with this information.

5. Announcing the Training. The private torture that all program people suffer from is that no one will come to the training session. Such concern need not be felt, however, if proper attention is given to the mechanics of the training announcement and publicity.

The first announcement of the training should be made long in advance. It should again be brought to the attention of the potential audience shortly before it is to take place. This can be done by means of oral announcements, memos to the office most likely to be interested, and the like. A useful device is the single-purpose, "what's scheduled" bulletin board.

6. Making Administrative Arrangements. No lecture will be better than the preparations that are made for it. These include the room where it will be held, the speaker's platform, and the availability of visual aids and other props.

7. Introducing the Speaker. The purpose of the "introductory remarks" is to identify the speaker, to welcome them to the group, and to state the subject of the talk. Information concerning the discussion period, if there is to be one, should also be included.

The introduction is not a second speech. It should take not over a few minutes, save in exceptional instances, and should certainly not detract from what the speaker has to say. It should be friendly and courteous; it need be neither funny nor anecdotal.

8. Asking Questions. A high percentage of all lectures where the announcement is made that "the speaker will be glad to answer your questions" are followed either by embarrassing silence, or by transparently obvious, manufactured ones. In either case, the effect is the same. The chairperson usually apologizes with some trite observation ("I see you have already answered all their questions") and so, the meeting ends.

One way to avoid silence is to have questions worked out in advance (from study of the general area of discussion) by selected members of the group, working as a panel. Another way is to turn the audience into buzz groups with instructions to bring up points of disagreement, or even, if they feel inclined, to ask questions. This can be done easily, and is usually well received because it involves participation. Also, questions can be prepared by the audience on 3"x5" slips of paper and forwarded to the lecturer for his response.

9. Evaluating the Lecture. Evaluating the lecture maybe an even more important part of the learning process than listening to it. This will give the members a chance to participate, and in doing so, they will have the benefit not only of their own reflection about what has been said, but also the views of the trainer.

The evaluation session should take place as soon as possible after the lecture. It should concern itself both with lecture content and the method of presentation.

The Demonstration

Demonstrations are a necessary part of the teaching process. Imitation of an act performed well by someone else is one of the very best ways of learning. Demonstrations are staged showings or illustrations, usually of a process, task, or piece of equipment. They may serve as auxiliary devices in connection with other forms of training, or they may be used as a method in themselves. They are most widely used in first aid, safety training, fire control training, use of equipment, and similar activities. For best results, the learners should have opportunity to repeat, under guidance, that which has been demonstrated.

Demonstrating has the advantage that what the instructor does with his hands is easily copied by the trainee. But what the instructor says in words, valuable and true and correct as it may be, has to be translated by the trainee from the words which are uttered to the acts which he has to perform. Some instructors are not good with words. Their vocabulary is limited and their powers of description may not be too great. The trainee, on the other hand, may not be too good with words either. He/she may not understand the words used. It is also possible that the trainee will get the wrong picture because he/she puts the wrong interpretation on the words used. It takes a great many words to describe some very simple things.

Demonstrations have another great advantage. When an instructor tells a group of trainees that he/she is about to show them a certain process, they place themself in a position where he/she is committed to do that very thing. Demonstrating a job process holds the instructor on the functional track and keeps them from sliding back into older habits or passing out non-related information. The key idea regarding the use of the demonstration method of presenting directions is the idea of imitation.

Good demonstration technique requires observance of several basic rules. Be sure the tools, apparatus, or materials are in good working order and are not likely to malfunction as you use them. Arrange for a decent chance to be seen. Don't get between observers and the thing they are to see. Solve the "mirror image" problem by some appropriate method. You may have to let the trainees look over your shoulder instead of face you. Talk as you demonstrate--but don't talk idly. Center attention on the essentials so the eye doesn't dwell on irrelevant but dramatic byproducts and miss the main essence of the operation.

A demonstration may be presented before a video camera and observed by small groups, using TV monitors.

Give the trainees a chance to see the whole act or operation as a unified whole, if possible, and then repeat it with more emphasis on the parts. Separate the parts by pauses, by verbal markers, or by other signals so that the trainees can analyze the act. Otherwise, there is no chance to grasp or assimilate them. A demonstration should yield insight, and this can better be given by featuring the key movements or steps so that there are high points, priorities, or special focuses of attention on what is of major importance. Just as a written outline uses indentation, underlining, numbering, and lettering to express relative importance of written ideas, so the instructor needs to use movements, pauses, pointing with the finger, and verbal devices to emphasize and to subordinate the various parts of an act they are demonstrating.

Another good technique in conducting a demonstration is to ask questions of the group periodically to see if specific points are understood. If for any reason the wrong way of doing something is shown, be sure to follow it with the correct method so the trainee understands the right way. (Be cautious in the use of "wrong way" demonstrations. Some individuals will remember them instead of the correct way.) A demonstration with any degree of complexity should be thoroughly rehearsed before the presentation. Such rehearsal should include assistants and others participating. A practice run permits a check of accuracy, clarity, and timing.

The principal advantages of the demonstration method are that it provides an understanding of a process and at the same time provides an interesting activity. It appeals to the eye and it shows correct methods of doing the job. It brings the learner closer to the work and it substitutes practical illustration of the subject for subsequent group discussion.

The main limitations of a demonstration are the subject itself, time, equipment, and the availability of qualified demonstration personnel. Often these can be overcome by using a film or other visual aids.

The Staff Meeting

The subject of staff meetings is highly important to Service supervisors because, if used properly, they can be one of the most effective methods of staff development. Unfortunately, staff meetings are sometimes held only for the sake of adhering to a schedule or complying with some requirement of the organization. Too often they are sterile gatherings of employees with little thought given to employee development.

Staff meetings are more successful when the supervisor keeps his purpose clearly in mind. The two major purposes are:

1. To give instruction or give and exchange information.

2. To permit the group to consider common problems.

Staff meetings should be used for both these purposes. They are less effective when the supervisor uses them for one purpose to the exclusion of the other.

In using the staff meeting for giving information, the supervisor saves time by explaining to a group, rather than individually, what they need to know about actions, decisions, changes in policy, and so on. They may give work instructions when all members of the group need the same instructions, or assign a complex project, giving different phases of it to different people. They may bring in someone outside the unit to give specialized information.

The staff meeting, however, should not be a one-way street. The supervisor may ask each member of the group for information and ideas that are significant to other members. Each may be called upon to describe developments in his own work which other members need to know about. An important advantage of giving information or instructions in a staff meeting is that there is opportunity for discussion. Any confusion can be clarified and the group may reach a common understanding of the significance of the information and its application to their work.

It is equally important, though more difficult, to use staff meetings to discuss and solve common problems. It is obvious that the supervisor cannot solve all the problems of the unit single-handedly and that several heads are often better than one. The supervisor, faced with the necessity of making decisions or plans, receives the benefit of the thinking of his staff. On occasion, a member of the group also may seek the advice of other members in solving a problem in his work.

The supervisor who plans to hold a staff meeting will do well to give some thought to the planning of such a meeting. A staff meeting should not be held simply for the sake of asking "Do any of you have anything you wish to bring up?" Each meeting should have a specific purpose or dominant topic, an agenda, some problems to pose to the staff group, and a period devoted to staff questions. Each meeting should be informative and only as lengthy as is absolutely necessary. Obviously, such a meeting will require some advance preparation.

Emphasis throughout should be on problem solving and getting the staff to think and to participate. If the supervisor finds that he is doing all the talking--the staff meeting is clearly of limited value.

The Conference

The conference method of instruction refers to a meeting under the supervision of a conference leader in which all members of the group volunteer, and exchange ideas on a predetermined subject. The fundamental principle is that through an exchange of ideas, the group will arrive at a high quality decision regarding the problem. Also, all members will receive and give information, a process which has definite training value.

Possibly one of the greatest benefits to be derived from the conference method is the development of the ability to analyze a situation and use a questioning attitude. Many inexperienced and untrained supervisors lack this questioning attitude because their ability to analyze situations and conditions is based upon snap judgment or emotion rather than sound reasoning. If a supervisor will develop the habit of carefully analyzing every problem that confronts them, decisions are apt to be more sound.

In the conference, every problem is carefully analyzed; facts are assembled and studied; pros and cons considered; advantages and disadvantages discussed; and only then are attempts made to arrive at conclusions. This type of training demonstrated at every conference over a period of time is bound to have a beneficial effect on every conferee or supervisor in attendance.

Current thinking and research on the conference method indicates that it is most effective when the leader is group centered. On the other hand, if the leader is authoritarian, knows all the answers in advance, is very conscious of his status, and is only concerned with achieving his <u>own</u> goals, then group participation and group satisfaction will be at a minimum.

No one is a born conference leader. But most of us can learn conference leadership by practicing it in conference situations. Any individual who is capable of clear, <u>impartial</u> thinking, and who has the ability to draw others out, can learn successful conference leadership. Sharing the various leadership roles such as summarizing, harmonizing, etc. is also basic.

One great advantage of the conference method is that it offers the ideas and opinions of a group rather than just one person. If all of the group can enter into the discussion, it adds to their interest in the subject. Each feels that he is taking part even though they may only ask a question or express an opinion. One listens attentively and thinks the subject through. Conferences help people to understand. The one who talks about a subject is organizing knowledge of the subject. The expression of ideas by others in the class allows one to see the subject from many sides.

There are also some disadvantages to the conference method. It requires more time than other methods. It may involve lengthy discussions and arguments. Unless the group is trained in how to participate in a group situation, there is a likelihood of straying from the subject. The value of the conference method is thus limited to the experience of the group in the particular subject at hand. For experienced personnel it is a good method for job analysis training, discussion of work problems, etc. The conference method should not be used when the group is unfamiliar with a subject nor when definite rules, regulations, and methods have been already determined for a given problem area.

Conferences occur both in the work situation and as a training medium. The former are thought of as administrative conferences and are held to plan work activities or resolve work problems; the latter are training conferences. Training conferences are the most widely accepted of the systematic methods of supervisory training.

A common type of training conference is the "guided" conference. The guided conference is built around topics chosen on the basis of established training needs. Each session has its specific objectives, plan of instruction, and body of content material. The conference leader guides the trainee group by the proper phrasing of questions and remarks, and moves the group in the direction of the agreed upon topic by encouraging discussion. The conference leader may supply subject matter information during the session, or arrange for a presentation of factual information at the start of the meeting. What is <u>not</u> done, is to control the free flow of ideas and opinions--so long as they may be generally pertinent to the discussion. The leader does not have a stock answer, nor is common agreement on a solution to a problem necessarily anticipated. Emphasis is given to the emergence of ideas from among the participants, and the pooling of group judgment and experience in the solution of problems.

The value of the conference lies in the participation of the members. They get out of it what they put into it. Opening-up and sharing ideas is not easy for all people, so we have some techniques to help them do this. Among the best are buzz groups, fishbowls, brainstorming, and role playing, which are discussed in the following pages.

The Critique

The critique, or problem review session, is closely related to a conference case study. Whereas the case study is generally confined to a real or imaginary human relations or job situation, the critique is aimed at reviewing an actual management operation with which the participants are familiar. The critique is best known in this Service for its use in forest fire review, although there are many other situations in which it would prove equally effective.

The principal aim of the critique, from the training viewpoint, is to disclose to the trainee group the possible sources of action which were open and available during various stages of the operation. It is possible that the critique may disclose mistakes, errors in judgment, or the overlooking of more effective techniques, but these disclosures in themselves have some training value. A critique should never be held for the sole purpose of finding fault or pinning the blame for inefficient operations on any one individual or any one group of employees. If this measure is necessary, it can be more aptly named an investigation.

A critique should be a constructive experience for all concerned. The conference chairperson should review the problem, step by step, from the initial action taken to the final conclusion of the incident. They should furnish basic information at the beginning of the critique so that all members present may have the same factual information with which to consider subsequent actions taken.

The critique serves as an excellent springboard for group discussion. There will be some members of the group, however, who may at first express confusion and frustration. They will resist having to think for themselves. They want to be told; they want to have their decisions made for them. But the cold fact is that out on the job they have to make their own decisions, so there is considerable sense in having them practice doing this in a training session. Usually, as the critique progresses, and the trainees get the hang of what is going on, this resistance wears off.

In the review of a problem by means of the critique, the group goes through several steps: (1) What are the available facts? (2) What are the problems evidenced by the situation under review? (3) What were the possible courses of action? and (4) What might have been the best course of action? Frequently, no pre-determined answer is possible, and unanimity of response is not expected.

Again, the leader or chairperson is all important in the success of a critique. They should be highly permissive and nonautocratic. They should raise questions now and then about action taken and question the group as to its validity. But the leader should not provide answers, pass judgment on behavior, or criticize observations and solutions of group members. The value of the critique is to get the trainee group thinking about different aspects of the problem or operation, and the leader can stifle this voluntary participation if they have too many pat answers or are critical of trainee contributions.

Buzz Groups

This is one of the most powerful forms of group training because a great deal of employee participation is obtained. Such a device is essential because the size of training groups limit individual participation. It permits the participation of many people by breaking the large group into small sub-groups of four or five people each. Each buzz group thus formed discusses a particular problem, develops a point of view, or prepares a question. The results of these sub-group discussions are reported to the full group by representatives of each buzz group.

This technique is frequently used to supplement the conference method and various discussion methods. It serves to break the monotony for a brief period and can be used to good advantage as a time-saver. It is particularly effective when the subject matter being discussed is of a nature which can be further developed by a series of probing questions, or one in which there may be divergent views which need to be drawn together.

The leader may have prepared in advance five or six pertinent, thought provoking questions which pertain to the general subject. Rather than throw these, one at a time, to the entire group for discussion, they may elect to assign one question to each buzz group and then permit a group spokesman to report the group's decision to the entire conference body.

It is very helpful as a device to warm-up participants. Some of us, of course, are shy in a large group. Experience indicates that group discussion proceeds more readily after members have had a chance to participate in a buzz group.

For best results, the conference leader should explain the purpose of the buzz group, permit the buzz groups to select their own chairperson, make clear what they are to discuss, and not specify rigid time limits. (A decline in buzzing indicates that the buzz groups are ready to reassemble.) Generally, however, 15 to 20 minutes is adequate for buzzing.

This technique may also be used after presentations by film, film strips, and lectures. Another variation is to let buzz group chairpersons serve as a panel to present views, solutions, etc., and to be quizzed by the rest of the group.

Brainstorming

"Brainstorming" is an idea-producing group training technique which has the advantage of maximum free participation on the part of all members. The process is started simply by outlining a problem for which a solution is needed. The problem should be narrowed as much as possible to avoid broad or general solutions. Representative group members are selected from all branches and divisions of the organization and all are provided with as much information as is available on the problem. If possible, this information should be placed in their hands several days in advance of the meeting so they will have ample time to digest the information and to think of possible solutions.

The brainstorming session begins with the panel chairperson explaining the problem verbally to the group, and seeing that everyone in the group has the same understanding of the problem. An example of a Service problem which would lend itself to a brainstorming session might be the question, "What other measures can we take in this area to combat the Litterbug?"

Once the introduction is accomplished the leader solicits suggestions as to the solution from the group members. A secretary records the suggestions as they are offered from the group, one idea at a time. No idea is rejected. Everone's thinking is welcome. Quality of a suggestion is unimportant--quantity is what the leader is after. The brainstorming technique is based on the premise that quantity breeds quality. Possibly out of 100 solutions proposed, only two or three will receive final consideration; but those two or three might never have been thought of had it not been for some of the remaining 97 sparking the ideas. The greater number of ideas, the more the likelihood of good ones. Even a farfetched proposal might result in planting a thought in some other person's mind which might occasion a worthwhile proposal.

Judicial judgment is ruled out. Criticism of ideas must be withheld until later. "Free-wheeling" is welcomed: the wilder the ideas the better. It is easier to tame down than to think up. Combination and group members should suggest how ideas by others could be turned into better ideas; or how two or more ideas could be combined into a still better idea.

After the group has exhausted its solutions to the problem, it is dismissed from the meeting. Then the chairperson and a selected group (smaller in number this time) go over the list later in a screening process. The original list of ideas is like the gold ore in a placer mine. The gold is there, but it has to be screened carefully and thoughtfully. First, the group chairperson and the group must go through the list and cross out any ideas which are absolutely contrary to Service policy or regulations. Second, the remaining ideas should be put into their proper classifications. Even though the session has been aimed at solving one particular problem, ideas come up on other subjects. In some cases, suggested solutions can be divided into several classifications.

After the list has had the preliminary screening, it should be given a careful reading. The possibilities of each idea should be considered. Those which seem to offer the best possibilities should be checked. This should result in a listing of preferred ideas. But as in placer mining, these final screened ideas are just raw gold. To be worth their value, they have to be refined and developed. The more the idea is spelled out, documented, or visualized, the better the chance that the person responsible for handling the problem will use it.

The success of the brainstorming session depends to a major degree upon the ability of the group chairperson. He/she must have the ability to draw out individuals of the group. He/she must be watchful for the individual who is timid about offering his/her thinking before the group. He/she must be careful that each idea proposed is developed sufficiently so that the suggestion will be meaningful at a later date.

Meetings of this type should be kept as informal as possible. To conduct them otherwise will make it difficult for people to propose ideas which they have not thought through completely. For this same reason, the group should not be too large. Fifteen people should be a maximum number for such a group. If more are available to offer ideas, two sessions should be scheduled with half the group in each.

When the panel chairperson has finished with the ultimate selection of the most workable solutions proposed by the group, he/she should make some kind of a report to the group (either written or oral). It should be make clear to the members of the group, that their suggestions contributed to the final and successful solution of the problem.

Role Playing

Role playing has become increasingly popular in recent years. It is particularly adaptable to problems in supervisory development, problems of human and employee relations, as well as in other aspects of Service work. The principle of role playing is demonstrated by an individual giving a speech before a group and then having the group criticize the speech and its delivery. The member has put himself into the role of a public speaker and acts out the part as he imagines it should be done. The value of the exercise is in the group reaction to the way the situation was presented and developed. The war games of the Army and Navy are the most complicated examples of role playing. Mock courts or mock trials are familiar to all of us and have been used effectively in training law enforcement officers in presenting testimony.

Two people generally act together in the skit or role-playing situation. One may assume the part of an employee who is involved in a work problem, and the other is the supervisor who has the responsibility for handling the situation. Each plays his role without rehearsal and plays it the way he imagines it should be played. Each says and does the things he imagines he would say and do in a real life situation of that nature.

It is the responsibility of the leader to see that the skit is presented as clearly as possible. She must give plenty of opportunity for all questions. Some criteria to keep in mind concerning any skit are:

1. The group should be vitally concerned with the skit. It should be about the same problem they have been discussing and attempting to solve.

2. The skit should be set up after taking into account the maturity of the group.

3. Not only must the skit be clear, but it must not be too complex. The best skit is one which is short and to the point.

4. The group should be able to role-play the problem without too much difficulty.

The members who are not acting should be asked to make observations. There are many reasons for this.

1. If the group members have been hard at work observing during the skit, they tend to have more interest in their observations and, therefore, tend to defend them more strongly during the evaluation.

2. Much of the value of role playing depends upon the discussion after the skit. Naturally this, in turn, depends upon the observations that the audience makes.

3. The leader can use the observations to show the members the differences in people's observations of an identical situation.

4. The group realizes, through practice, the difficulty of observing human behavior and recording the same in a simple situation.

5. The role-player tends to do a better job if he sees that the audience is also working hard. Furthermore, it makes the role-players feel that they are doing something important and not being "kids" who are making believe.

The evaluation stage is one of the most important in the entire role-playing method. It is at this stage that the group tries to analyze and understand what occurred during the skit. The leader can bring the skit back into focus by asking questions of the group members as to how certain phases of the over-all situation were handled. He/she can offer alternatives and compare them with methods demonstrated in the skit. He/she can ask further as to why the role-players acted as they did. The leader should be careful to guide the group toward a discussion and analysis of the human reactions of the role playing. Also, he/she should insist that, while discussing the roles, the members use the fictitious names used in the skit. This tends to pin attention on the role playing and not on the individual actor. Talking about a "role" is less personal.

The Panel Discussion

This type of discussion is adaptable to groups of varying sizes. The panel generally consists of a panel chairperson, and from three to six panel members. The members are chosen due to their familiarity with some phase of the subject matter to be presented and generally assume the role of "guest experts" for the duration of the meeting.

The panel chairperson should start the meeting by offering the trainee group an explanation of the subject to be covered. In general the audience is familiar with the over-all subject, but may lack knowledge of the details to be covered in this particular discussion period. The chairperson terminates his/her introduction of the subject by posing a leading question to one of the panel members. One question follows another until each panel member has had at least two opportunities to present his/her thinking, or until the chairperson terminates the questioning for other reasons. At this point the panel is thrown open to questions from the audience.

Meanwhile, the audience has been following the presentation by the panel members and jotting down points which are not thoroughly understood, or which they want developed further. When the discussion is opened to the audience, the questions are asked of the chairperson who, in turn, poses them to a specific panel member. The reason for this directed questioning is to assure that the panel member is qualified to answer the particular question. At the termination of the period of questions and answers, the chairperson summarizes the points made during the discussion.

In effect, the panel discussion is a small conference before an audience. The questions and answers of the chairperson and panel members must be thought provoking in character and must stimulate the audience into participation. The questions posed by the trainee group must at all times be directed to the chairperson, lest the meeting get out of control and become a discussion between one panel member and one trainee.

The panel chairperson must be prepared to rephrase a question, if necessary, when it becomes evident that the trainee is not getting the response he/she desires. The chairperson must also exercise care to fit the contributions together through summary at the close of the meeting.

The chief value of the panel discussion is that it brings together a group of individuals as panel members who have special knowledges of the subject matter. The quality of instruction, at least from the viewpoint of subject matter content, should generally be greater than that offered by one discussion leader. Too, the trainee group audience has an opportunity to actively participate during the latter part of the meeting.

Occasionally, panel members holding diverse opinions may be used where it is the wish of the leader to use subject matter in which advantages and disadvantages, or pros and cons, are to be highlighted. Through this method, the areas of agreement and disagreement are defined in part by the speakers, and are further developed and explored by the subsequent audience discussion.

Group Problem Solving

This technique, known by various other names, is the method in which a group of trainees is given an actual problem to solve. One member is designated as the group leader and organizes the group into a suitable working force for the particular problem. Each member should have sufficient latitude in his assignment to display individual discretion and sound judgment.

Group problem solving is not a paper exercise. An actual, physical problem must be provided. For example, a typical problem for this group approach would be the stopping of a vehicle on a park highway and the apprehension of several fugitive occupants. A group of three or four trainees could be given the role of park rangers whose mission would be to make the apprehension in a safe but effective manner. They would be given a patrol car and such other equipment as they would need. Other trainees would be given a second car and enact the role of the fugitives. The problem would be enacted on a park road before an audience comprised of trainees and instructors. After the apprehension was made, the audience group would hold a critique of the incident, and comment on the methods used by the participants.

This technique is best used where basic knowledge and skills have been previously taught by some other method. The fields of law enforcement, fire control, accident investigation, investigation of complaints, or rescue operations are particularly well suited to group problem solving. The problem can be a sort of a graduation exercise which will test the trainee group in the particular application of the principles learned.

During the execution of the problem the instructor must be alert for wrong application of techniques and procedures, and must be certain to correct these in the critique which follows. The physical staging of the problem requires considerable advance planning and preparation. Occasionally, where the problem may require two competing groups of trainees (as in the example cited above) the instructor may have one group react in an unconventional manner in some phase of the problem just to see how well the other group can cope with the unexpected situation.

Group problem solving of this variety can be a lot of fun for the trainee group and a very graphic and effective method of imparting information. It is one of the best examples of "learning by doing" as applied to the group process of training.

Case Study Method

The case study method is a training technique designed:

1. To permit group members to increase their knowledge and awareness of particular subjects and problems through interchange of views.

2. To help participants learn general principles, implications and issues of particular problem areas.

3. To improve their skill in listening.

4. To point up that there frequently is no single solution to a problem, that there may be several or many solutions, or even no solution. In general, the aim is to encourage respect for the views or solutions of others, to reduce rigid attitudes regarding "correct" solutions, and to encourage the seeking out of many solutions before one decides on the "best" solution.

5. To point up the need for careful, systematic discussion of a problem, breaking down the problem-solving process into a sequential process having these stages:

    a. Problem definition, including securing facts and ideas about the problem.

    b. Proposing solutions.

    c. Evaluating the merits of each of the proposed solutions.

    d. Choosing or deciding (decision-making) among the alternatives.

    e. Implementing the solution; i.e., developing plans for action. (This step probably would not be discussed in the typical case study discussion.)

Role of the Leader in Case Study Discussions. The case study leader's role is to encourage group members to discuss a problem. He does this by starting the discussion rolling with such questions as: "What's going on here?" or "What is the problem?" He then waits for someone to pick up the ball. There may be a long pause at this point, but the skilled discussion leader will wait the pause out. Once a group member responds and states the problem (not a solution), other group members should be encouraged to respond to the initial statement.

The leader will function best if he encourages free discussion and refrains from serving as "the expert" or lecturer. The group at large will have enough expertise to discuss, analyze, and "resolve" the problem. However, the leader should, wherever necessary, raise questions which encourage relevant thinking.

After the problem has been defined and discussed for 20 to 30 minutes, solutions (for another 30 to 45 minutes) should be obtained from the group. These should be listed on the blackboard by the leader. The solutions may then be evaluated as to their desirability, practicality, relevance to the intent of laws, regulations, established policies and programs, management problems or concepts, etc. (By management problems or concepts we mean such areas as communications, ethics, morale, motivation, career development, etc.)

Sometimes group members say, "We do not have enough facts to make a decision." The skilled discussion leader will assure them that adequate facts are at hand; besides, in making decisions about management problems, managers frequently have to act on the basis of the facts they do have. In fact, it is unrealistic to ever hope to have <u>all</u> the facts about a problem involving people.

It is not essential that the group agree on a "best" answer. The case study session is intended, rather, to stimulate thinking, insight and awareness and to provide certain types of knowledge about a problem area. It is also intended to show that more than one solution may well be possible, and that <u>group methods</u> of discussion can help to produce more solutions. It should be obvious that a better decision is possible if we can choose from more than one alternative.

The session may be completed by (a) a short summary by the leader highlighting pertinent policies, requirements, and principles, and (b) the dissemination of readings and handouts bearing on the topic. The leader should refrain from providing "school solutions" about the case. Most groups will have enough "wisdom" to come up with practical solutions to the problem involved.

The primary purpose of the case study method, whether it is used to teach law, supply administration or certain phases of personnel management, is to stimulate thinking and discussion. A case, then, is a tool for training. It thus makes <u>little difference</u> whether the case is developed from a situation within the National Park Service or selected from another Department. For example, in a law course given in a California college the cases may be drawn from Maine, Massachusetts, or Missouri as well as California, the important thing being how valuable the cases are from a learning standpoint.

We make this point since trainees new to the case method often ask "Why do we use cases which are not based on National Park Service situations?" The answer is that we could deal exclusively with National Park Service type cases. However, since cases drawn from within the Service do not cover all the topics which we wish to treat, we are required to seek out cases from outside the Service. Actually National Park Service cases require changing of names, locations, some of the details, etc., to avoid possible embarrassment to any of the people involved. The end result, in either case, is a case which is not truly identified with its actual point of origin.

It is the job of the discussion leader, then, to point out at the outset and thereafter that "the case is the thing," and not to worry too much about the source of the case. What is important is that we have a "good" case. A good case, as an experienced case study leader sees it, is one which has a high degree of realism in it. That is its main characteristic. Realism, obviously, is essential to ensure that the trainees will enter wholeheartedly into the discussion of the case.

In summary, the trainee who complains about the organizational setting of the case is probably resisting the new learning. If the case study leader uses the case properly as a training device, he can help the trainee make a successful transition from the case to the learnings involved.

Instructions to Participants in Case Study Discussions.* You have been given a copy of the case which will be used in our first case study session. All of our cases are actual situations which have taken place in various govenmental organizations.

Analysis and discussion of cases by you and your fellow group members will help to increased insight into the managerial and human aspects involved and to consider various courses of action.

The value of the sessions will depend largely on the thoroughness of your preparation. Therefore, the following suggestions are offered to assist you in preparing yourself for participation as a discussion group member:

1. Study the case carefully prior to the session.

2. As you study each case, you should:

   a. Develop a clear picture of the situation being studied. Ask yourself, "What is going on here?" This calls for realistic imagination because it is never possible to secure all the facts about a management situation.

b. Pay particular attention to the attitudes, values, aspirations, anxieties, and feelings of the people involved. Note the "friction points" between individuals and the causes therefor. Distinguish carefully between facts which are known and clear cut, vs. opinions, inferences and assumptions by the characters in the case as well as your own.

c. Clarify the problem. Ask yourself, "Just what is wanted, and what am I up against?" Why are the people in the case acting as they are?" "What caused the problem?"

d. Determine the alternatives and the key factors, pro and con, in deciding the solution. There maybe several possible solutions to a problem, and the wise choice rests on identifying the crucial differences among the solutions. Added questions to ask are: "Am I merely treating symptoms or, more properly, the basic cause(s)?" "What is the likelihood of the proposal(s) succeeding?" "How will the people involved react to the course of action I favor?"

3. The amount of learning from the discussion will depend on the quality of participation. Questions you should ask yourself are:

Do I listen accurately to group members?

Am I tolerant of their opinions?

Am I trying to understand their point of view?

Am I and others expressing our likes and dislikes (prejudices) openly? Or are we rationalizing about such feelings?

Am I encouraging others to "open up" so all will have a chance to be heard and to give the group the benefit of their experience?

4. Be prepared to explain your position in the group discussion. One of the purposes of case study work is to allow you to test your reasoning on management problems and solutions with other seasoned supervisors.

5. As you read the case and participate in the discussion, note the management principles or concepts which the case points up. These ideas will be drawn from the group and placed on the blackboard by the case discussion leader.

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*This material should be reproduced as a handout to accompany the first case which is given to the trainees.

In-Basket Exercise

The in-basket technique is a game or simulated exercise particularly designed to provide training for the manager. It simulates a period in the day of a manager during which he is confronted with an in-basket. The in-basket contains a variety of letters, memos, reports, complaints, requests, press clippings, all of which require him to take some action. These actions may involve phone calls, contacts with individuals, calling of meetings, "yes" or "no" decisions, sending notes to individuals, etc. There obviously is no "right" answer to any problem in the in-basket.

In general, the in-basket resembles a realistic set of administrative, operating, communication and human relations types of problems of varying degrees of difficulty, some of which have significant organizational inter-relationships. For added realism, the exercise is done under the pressures of a time limitation; i.e., one hour.

The learnings from the work on the in-basket may relate to planning, organizing, delegating, staff-line relationships, communication, friction, cooperation, introducing change, race relations, employee motivation, public relations, etc.

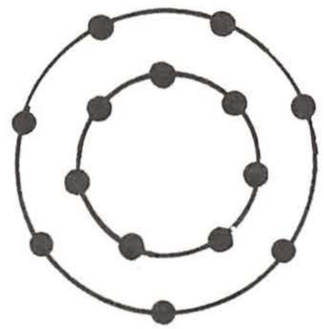
Although the in-basket involves individual work, results or decisions reached should be compared and discussed in small groups for additional learnings. This maybe followed by a final discussion with the entire group.

A sample in-basket, added information about it, and instructions for the use of the technique are contained in, Herbert M. Engel, Handbook of Creative Learning Experiences (Gulf Publishing Co., Houston, 1973).

Fishbowl

A technique to involve actively all participants is the fishbowl. It is particularly valuable as (1) an "icebreaker" and (2) to help different viewpoints emerge for analysis.

The procedure is as follows: Divide the trainee group (assume a group of 14) into two parts. Sub-group "A" forms an inner group; sub-group "B" forms an outer group.



The "A" sub-group is assigned a topic which it is to discuss for 10 to 20 minutes. The outer or "B" sub-group observes and listens silently. The "B" sub-group then exchanges places with sub-group "A". The inner circle may then discuss the views they just heard and present their own reactions to the topic.

The above procedure maybe repeated as appropriate.

In supervisory or management training courses the observers in the outer ring may also give feedback to inner group members about their participation, communication skills, supportiveness, etc. The feedback maybe both individual ("George, you interrupted Charlie constantly"), or group-oriented ("I think they functioned very well as a group. They didn't appoint a chairperson, and as it turned out none was really necessary"). The observers (outer ring) will do a better job of giving feedback if they are given a guide sheet which tells them what to look for as the inner group does its work.

Instruments

A dynamic training tool developed in recent years is the instrument or inventory. Its purpose is to make training more alive and more life-life. Instruments appear in many forms: checklists, quizzes, rating sheets (of self and for others), surveys, opinionaires, question lists, etc. Regardless of the form of the instrument, its purpose is to generate data for analysis.

Instruments may be used in a number of ways:

1. To introduce a topic; i.e., a quiz on one's leadership style may be used to launch a discussion of theory X and Y management.

2. To encourage introspection; i.e., one's skill as a listener, a communicator or a coach can be examined via a printed check list.

3. To give feedback to others; i.e., all group members may rate one another on various aspects of conference leadership, public speaking, etc. The tabulated data provides an easy-to-comprehend "box score" on one's skills as observed by one's peers.

4. To inventory attitudes; i.e., to learn how trainees feel about current procedures or policies.

5. To assess learning as a result of the training; i.e., attitude or knowledge surveys can be given on a pre- and post-course basis.

Instruments may be made by the trainer or purchased. They may have been validated or not. They may be long or short. What they have in common, however, is an emphasis on the use of live data, giving and receiving feedback, self-appraisal, providing an opportunity to compare oneself against others, and (frequently) to deal with data in concrete, quantitative terms.

For additional information, the trainer may wish to refer to:

a) Robert R. Blake and Jone S. Mouton, "Instruments to Create Involvement," Sales Meetings, Oct. 1971.

b) V. E. Buzzota, R. E. Lefton and M. Sherberg, "Instruments," Sales Meetings, Oct. 1971.

c) J. Wm. Pfeiffer and Richard Heslin, Instrumentation in Human Relations Training, (University Associates, La Jolla, California, 1973).

Films

Films are an invaluable tool to enhance a learning experience. Although they do not provide as direct an experience as other training methods (i.e., role playing, laboratory or sensitivity training, games, etc.), they do provide a vicarious experience from which one can learn many concepts and skills. Trainees identify readily with filmed characters and situations, thereby facilitating learning. And in our AV-oriented culture, people who attend training programs certainly expect to see (and learn from) films. Hence, the sophisticated trainer will be alert to the use of films whenever it is appropriate.

Films can be used in a variety of ways such as the following:

1. To introduce a topic. If your objective is to stimulate thought about a given subject, a film can serve as a good opener. It can command attention, arouse interest and provide the appropriate initial motivation. In effect, it can set the stage for the intensive class work which is to come.

2. To provide basic content. A meaty film can provide the subject-matter input to cover a given topic. Functioning in an international way, it may be the content for a given session or it may be the content preliminary to subsequent application sessions. In essence, it might serve the same purpose as a talk or lecture, but do it in more interesting fashion.

3. To reinforce a topic. The drama and realism of a film can make vivid the learnings produced by other aspects of a training program. To the extent that trainees can identify with characters in a film, for example, the learning will be more profound and longer lasting. Natural scences and objects and historical places obviously will take an added meaning via the film medium.

4. To change attitudes. The film, with its potential for realism, can help to build and alter attitudes. Because of its impact, it is highly useful in orientation, supervisory training, conservation subjects, etc.

5. To show a skill. One can talk about a skill for hours, but its real significance will come through more meaningfully (and more quickly) via film. Whether the skill may be making an arrest or counseling a troubled employee, the principle of visual appreciation is the same. Of course, seeing must be followed by doing ("try out experience") for real learning.

6. To serve as a case for discussion. A dramatic case or problem on film is an excellent way to involve the group. The film gives the particulars to everyone all at one time, and thus serves as a ready vehicle

for discussion, analysis, critique. By way of contrast an assigned written case may not have been read by everyone, it may not be remembered too well even if read, the facts and characters may be less clearcut, etc. The attitudes and motivations of the film characters come to life readily and maximum realism is thus imparted to situations, relationships, personalities.

7. To summarize a topic or program. In some instances a film may carry the message which a session or total course is trying to make. In such cases, closing with a film is very appropriate. For if it can set the proper tone or mood and thus leave the desired impact, the trainee will depart with "the message."

For maximize value from films, these suggestions merit consideration:

1. Always study the Leader's Guide which accompanies the film, if one is available. The film makers know their ideas and advice on its use can be quite helpful.

2. Don't use films for non-training purposes such as to provide entertainment, to fill up a gap in the program, to provide a break, to serve as a quickie replacement for a speaker who failed to show, etc. Films are building blocks for a learning sequence. Use them as such.

3. Few films can stand alone. Auxiliary techniques such as brainstorming, role playing, exercises, listening or viewing teams, buzz groups, instruments, etc., are vital means to maximize results from films.

4. Sometimes a portion of a film - a vignette - will suffice. In fact, the vignette may have more impact than the full film.

5. Don't overlook possibilities of stopping a film at a given point. Hold a discussion of the action which took place, or might occur, and then run the rest of the film. Then hold the final discussion.

6. Try to relate film sequences to on-the-job situations for maximum learning. In the absence of such a transition, the film may be perceived as academic material. Typical questions to ask are: Could this happen in our park or office? How could we prevent this from occurring in our situations? How does this apply to us? Is this a realistic situation based on your experience?

7. Don't hesitate to run a film a second time. It may open added windows, reinforce learnings, or clarify points which were in doubt or dispute.

8. Don't run two films back to back without discussion in between. Films carry too much material to run the risk of mental overload.

9. Plan carefully your introduction to a film. Explain its origin, why it was made, why we are using it, what we should look for, what characters to observe, etc. If some elements in it may cause concern, i.e., older costuming, foreign accents, etc., inform the group about them.

10. Pay attention to the physical aspects of good film presentations such as no distracting light or sound, good visibility for everyone, adequate ventilation, etc. A separate loud speaker in front of the room will enhance the projector's audio capability and give the presentation more of a professional look.

Specific Factors in Film Evaluation

In previewing a film we should employ a number of specific factors to facilitate the decision-making process. First, we should get a clearcut fix on the nature or purpose of the film. Is it designed to teach or instruct, i.e., how to listen better, how to orient a new employee, etc? Is it conceptual in nature, i.e., does it present ideas which are intended to encourage new thinking, reinforce a topic, stimulate controversy, change attitudes, put problem-solving areas into a better focus, etc?

Second, does the film present a single theme (i.e., delegation) or does it lend itself to multiple uses (i.e., leadership style, team building, conflict vs. cooperation, etc.)?

Third, the overall quality of the film's content should be appraised. Is the film meaty, provocative and its ideas interestingly presented? Does the film feature an "expert" in the field or has it been created by a person with high professional qualifications who does not appear in the film? Are the ideas current rather than dated, adequately objective as opposed to being biased? Is it fast-moving rather than slow-moving? Has humor been used to advantage? Will the film make a good impact and its ideas thus likely to be remembered?

Fourth, are there particular vignettes (dramatic incidents) which can be used by themselves? If so, this may enhance the utility of the film, for the sophisticated film-user knows that a pointed vignette of one to four minutes duration may make a greater impact on the audience than the complete film.

Fifth, does the film seem useful as a means of introducing a subject, summarizing a topic, serving as a case for discussion, launching an exercise or a role-play, etc?

Sixth, is it a good professional production? Factors to consider are the acting, photography, lighting, use of special effects if any, music, and sound quality.

Seventh, are there built-in instructional devices to aid the learning process such as use of the stop-film technique; animation; the use of titles to underscore key points, to pose questions, or to identify key characters; the use of flip charts; wrong-way - right-way enactments; "experts," etc? If so, do they enhance the utility of the film?

A check list based on the above points follows.

GUIDE SHEET FOR PREVIEWING A FILM

TITLE OF FILM ______________________________

DATE ______________ NAMES OF PREVIEWING GROUP MEMBERS (1) ______________

PURPOSE OF FILM (2) ______________

Instructional ______________ (3) ______________

Conceptual ______________

Other ______________

THEME (S) ______________________________

____

____

QUALITY OF CONTENT

Impact of ideas	LOW	1	2	3	4	5	6	7	HIGH
Manner of Presentation		1	2	3	4	5	6	7	
Effectiveness of "Experts"		1	2	3	4	5	6	7	
Pace		1	2	3	4	5	6	7	

Up-to-date Yes____ No____ Not Sure____

Probable retention value	1	2	3	4	5	6	7

COMMENTS ______________________________

____

____

INSTRUCTIONAL AIDS

Stop-film technique in film	Yes___	No___
Possibilities for stop-film technique	Yes___	No___
Titles regarding key ideas	Yes___	No___
Titles to identify characters	Yes___	No___
Animation	Yes___	No___
"Right-way" - "Wrong-way" technique	Yes___	No___
Flipcharts	Yes___	No___
Use of an "Expert"	Yes___	No___
Other	Yes___	No___

COMMENTS ____

____

____

SELF-CONTAINED VIGNETTES: (1) ______________________________

____

______________________________ (time:)

(2) ______________________________

____

______________________________ (time:)

BEST USES OF FILM

To introduce a topic _____ Other ____

To close a topic _____ Other ____

To launch an exercise ____

COMMENTS ____

____

PRODUCTION QUALITY

Acting	LOW	1	2	3	4	5	6	7 HIGH
Photography		1	2	3	4	5	6	7
Lighting		1	2	3	4	5	6	7
Special Effects		1	2	3	4	5	6	7
Music		1	2	3	4	5	6	7
Sound Quality		1	2	3	4	5	6	7

COMMENTS ______________________________

____

____

OVERALL RATING	LOW	1	2	3	4	5	6	7 HIGH

COMMENTS ______________________________

____

____

Training with TV

1. The "Complexity-Resistance" Model. Television, like film, is a potent tool for learning since it presents material via sound, sight and movement. TV, using videotape, also has the instant replay facility which is a powerful means of providing feedback to the learner.

Effective use of TV depends, however, upon our ability to relate it to learning principles. A means of doing this is to use the "Complexity-Resistance" model to analyze training objectives and problems.* This model tells us that all training situations have two universal ingredients:

a. The level of complexity of the material to be learned.

b. The degree of learner resistance to the material.

Thus our model presents us, as trainers, with four quite different training situations:

- Complexity and resistance are both low.
- Resistance is low and complexity is high.
- Resistance is high and complexity is low.
- Complexity and resistance are both high.

a. C and R are low. Under these conditions we are only concerned with information giving. Only low involvement techniques and direct feedback are appropriate. Typical uses: to explain a new process, technique, procedure, or piece of equipment; orientation of new employees. From a TV production standpoint, the message can be simply produced and presented. From a training standpoint, the TV message may serve as the total learning experience. Some trainers would question the need to use TV at all under these conditions.

b. R is low and C is high. Since little emotion is expected to arise to resist learning, here we are concerned with intellectual and/or physical stimulation. Typical uses: to explain complex ideas, equipment, procedures, processes, etc. Production-wise, the fullest use of the medium is essential; that is, we need to use the graphic arts in abundance - animation, photos, slides, film, visual effects. Training-wise, the TV input is part of a total learning experience; pre- and post- tests, short TV presentations, and individually-paced learning approaches are appropriate.

c. R is high and C is low. Since emotionality is (or maybe) present, we need to use TV with other training devices which involve the learner fully. Typical uses: where employees resist new safety procedures or equipment; in other situations where change is not understood or is

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*For a fuller account of this model see Charles DeLoache, "Here's How You Win or Lose with TV in Teaching Situations," Canadian Training Methods, September - October 1969.

unwelcome. Production wise, highly dramatic TV presentations with mood music are appropriate; live examples of actual instances of accidents (in the case of safety) are desirable. Training-wise, change-inducing techniques such as role-playing, counseling, exercises, etc., in support of TV, are essential. Pressure and support from peers and supervisors will also facilitate the change.

d. R and C are both high. This learning situation is obviously the toughest. Here we need a TV message with great impact and highly involving training techniques. Typical uses: overcoming strongly held attitudes such as in instances of social prejudice regarding minority group hiring, promotion and training. The TV input can hardly stand by itself and must be part of a total learning experience employing a variety of involving, dynamic techniques (confrontation, feedback, instruments, role-playing, etc.). Opportunities for try-out experiences plus reinforcement from the group and the trainer are keys to success.

2. Ancillary Techniques. TV lends itself to the use of many ancillary techniques. Here are several.

a. Instant Reply. This technique is highly useful to improve ability to give a talk, to interview, to conduct a meeting or conference, to make an arrest, to deal with an angry visitor, etc. The critical element is feedback from "The Big Eye" which shows the trainee exactly what they did in the try-out experience. To facilitate data collection and analysis the following T-Column might also be used:

Things I (we) like about the interview	Things which could be improved upon

The role players might provide the initial data and the group could add other items to the table, as appropriate.

b. Prediction. To project the trainee into a TV simulation, a segment of the TV tape maybe shown and the trainee maybe asked: "What action would you take now?" If the proposed action lends itself to it, the trainee might act out his "solution," subject to group critique.

A milder, less "threatening" and less involving variation is to ask: "What will the supervisor (on the video tape) do now?" This shifts the approach from one of personal action to action which the character on film will take. After the prediction, the rest of the tape maybe played. (Additional information on this technique is given in S. J. Levin, "Prediction - New Tool for Video Tape Involvement," Training in Business and Industry, April 1974).

c. Trigger Tapes. An incident is flashed on the screen, i.e., two employees are about to start a fight over the use of a piece of equipment. The trainees maybe asked to write down (and then discuss) a) how this incident could have been prevented, and/or b) what should the supervisor do now? As appropriate, trainees also may role play their solutions. (For more detail see: E. J. Zeinet, K. Miller, and P. Turner, "Trigger Tapes - A Tool for Teacher Education," Educational and Industrial Television, March 1975).

"Learner Controlled Instruction"

A method which has been tried with considerable success is the so-called "Learner Controlled Instruction" or the laboratory method. This method dispenses with the conventional "instructor," and the group is permitted to proceed under its own momentum. The method requires an experienced facilitator, knowledgeable in subject matter, the method itself, and of human behavior in group situations.

The theory behind this method is that material selected, sorted, utilized, and demonstrated by an individual is more apt to be internalized by a course participant, and consequently more readily recalled when needed.

The method insures a potential for a full utilization of the resources within the group. Simple arithmetic can almost prove this, we say "almost," in that proof in training situations is very difficult to come by. Let us assume that you have one instructor and twenty-four trainees in a conventional training situation. That would, or could be, the total intellectual input of one directed to twenty-four. In "LCI," in theory, you have twenty-four "instructors" with their combined intellectual input directed toward each other.

One of the possible pitfalls in using this method is that some individuals, when given the power to proceed independently of authority, will seize the power for an "ego-trip," and impede the learning of the balance of the group. This can be faced by having a short session on the dynamics of leadership, and on the mechanics of using authority.

It is also advised that at least one day be devoted to a concentrated presentation of mini-sessions by experienced instructors, and the providing of numerous resources in the form of handouts, books, tapes, films, and relevant files.

When using this method the facilitator is urged to manifest a desire for some kind of "finished product" at the end of the course.

This method is not suggested for training events in which the participants know nothing of the subject matter or in events which are based on the precise learning of a motor skill.

It is admirably suited for groups with varied experience, mixed age groups, assorted academic backgrounds, and multiple on-the-job responsibilities.

Because of the respect accorded individuals in this method, it is also well-suited for situations that represent a wide range of grade levels and strong variance in job-status.

EFFECTIVE TOOLS

TO AID THE INSTRUCTOR

Analyzing a Job for Training Purposes

Many of us are so familiar with a number of technical park operations that we never take time to think about the component jobs which make up the operation. Similarly, some instructors never take a job apart to see how many different tasks go into the total job. Generally, they teach the operation as a whole which, while it may be meaningful to them often leads to confusion on the part of less experienced trainees.

The instructor, in making a job analysis for training purposes, sometimes looks at the job in the light of his own experience in doing it. It is essential that after he/she makes the analysis he reviews it in the light of the way a learner would look at it. The job may appear simple to the instructor, but it will not look so simple to the learner.

In most jobs the operations and steps in the breakdown vary greatly in their degree of difficulty to teach to the average trainee. In some jobs the order of the operations and steps is not fixed. This permits a choice in the order of instructing in these operations and steps. It usually is better to train in some of the simpler steps first if the operation itself permits. The instructor should determine the training sequence of the steps. He should also estimate the time needed for the training in each step. Throughout the training of employees for that step, this estimate should be revised by noting the time needed by each trainee for each of the difficult steps. Some instructors have found it helpful to "hot-spot" the operation breakdowns by special notations on the steps and key points that cause the greatest difficulties. Two questions may be asked: "Where do things usually go wrong on the job?" and "What are the stumbling blocks to the beginner?" More time is devoted to these "hot-spots" during the initial training of new employees.

The instructor should study the operation breakdown and determine which steps to present in each unit of instruction. Care should be exercised to insure that each unit contains no more than can be learned by the trainees at one time. Units should be planned in the light of learner difficulties. Some operations are so simple that the entire operation can be presented in one unit while other operations are so complicated that one or two steps are sufficient for one unit. Each unit should be successfully completed before the succeeding unit is presented.

A practical way of starting an analysis is to list the typical tasks in the operation. From such a list should then be eliminated those jobs which for various reasons cannot or need not be included in the training program. This results in a final list of typical jobs which will make up the content of the training sessions.

By way of very simple illustration we may take the project of constructing a wire fence. The over-all operation maybe broken down into the following jobs:

1. Location of the fence line
2. Digging the post holes
3. Setting the fence posts
4. Bracing the corner posts
5. Stretching the wire
6. Installing wire spacers
7. Installing gates

It may be that the employees already know how to dig satisfactory post holes, and may know how to set posts firmly. These two jobs can, therefore, be eliminated from further training consideration. Each one of the other jobs, however, should then be broken down to indicate what the employee does and what the employee needs to know. An example of such a job breakdown follows:

JOB ANALYSIS

JOB: Stretching the wire

Operations (do)	Keypoints (know)
1. Fasten wire to end post	1a. Which side of posts to stretch wire on
	b. How to anchor end of wire
	c. How to set staple to avoid kinking and pulling wire
	d. Number of staples to use
2. Unroll wire	2a. How to handle a roll of wire
	b. Proper procedure to avoid kinking when unrolling
3. Apply wire stretchers	3a. How wire stretchers operate
	b. How to anchor stretchers
4. Stretch wire	4a. Stretch wire until kinks barely begin to straighten
5. Staple to posts	5a. Same as 1c-d above

Once the breakdown of the job is accomplished in some manner similar to the above, the instructor will find it comparatively easy to prepare a lesson plan to assist him in the subsequent training activity.

Lesson and Discussion Plans

Too many instructors feel that they maintain sufficient mastery of a subject to enable them to walk into a teaching situation on a moment's notice and with no advance preparation. Usually, during the course of the lesson this fact becomes painfully evident to the trainees.

Some instructors feel that it is unbecoming for them to have to refer to notes. They feel that it indicates that they do not know their subject matter sufficiently well to talk glibly about it. On the contrary, it is actually flattering to the trainee group to see an instructor consult notes. It impresses the trainee group with the fact that they think enough of the occasion to give the subject some advance study and preparation.

There are many methods of making up lesson and discussion plans, and all of them have some merit. Some are quite elaborate; others quite simple. They need to spell out to the instructor only those steps in the lesson or that subject matter which he needs to guide him to a successful conclusion. A lesson plan keeps the instructor "on top" of subject at all times. It provides an orderly presentation with a sequence of subject matter which is meaningful to the trainee. It helps to provide a short and snappy training session. It cultivates an impression of the instructor as an orderly thinker. It prevents the inadvertent omission of material. It guarantees emphasis on proper points of the lesson and at the right time. In short, it is such a good guarantee of an effective period of instruction that it is a wonder that everyone doesn't use one!

No one method for developing a lesson plan is advocated. For the benefit of those Service supervisors who may never have had experience with lesson plans, a modified Navy method of developing such a plan is outlined as follows:

a. Introduction

The introduction to a lesson should do each of the following:

1. Develop trainee interest
2. Direct thinking along desired lines
3. State objectives of the lesson
4. Tell trainees the value of the subject matter to them
5. Tell what methods will be used
6. Tell trainees what will be expected of them by the end of the session

b. Presentation

This is the "plan of action." In this section, the instructor puts together an outline of the subject and the proposed method of presentation. In other words: What are you going to teach and how are you going to teach it?

1. Outline of subject matter
2. Notes as to method to be used
3. Suggestions for instructor activity
   ("Show chart," "Develop on blackboard," etc.)
4. Suggestions for trainee activity
   ("Trainee work problem," "Fill in missing line," "Trainees make sketch," etc.)
5. Specific questions to be asked.

c. Application

Indicate in this section what the trainees will do to apply (use immediately) the skills taught. They may work problems, work on a project, or in some other way demonstrate their mastery of the subject matter.

d. Summary

Recapitulate the main points of the material presented and tie up all the loose ends.

1. Organize the material in the mind of the trainee.
2. Offer a chance to strengthen weak spots in instruction.
3. Offer opportunity for questions from trainee group.

e. Test

Offer some type of test (oral or otherwise) to assure yourself that you have accomplished the objectives of the lesson. Such a test may disclose that the instructor has missed the boat entirely, or has maintained his objectives to an acceptable degree.

The wise instructor will keep his/her lesson plans on file for future use. It is possible that a Service supervisor who frequently serves as instructor could have a notebook full of lesson plans. When called upon to lead a discussion or offer a lecture to a trainee group, she would need only consult her notebook for the appropriate lesson plan, and thus save considerable time in preparation. In some training situations where the same subjects are taught every six months or every year, such a notebook of lesson plans is a practical approach to efficient training. Possibly a set of standard lesson plans could be developed for a supervisory staff and all supervisors have access to one notebook of approved lesson plans. A great deal of standardization of instruction could be achieved in this manner, providing that all supervisors were given an opportunity to familiarize themselves with such plans by actually conducting training sessions with the use of such plans.

LESSON PLAN

Subject: ______________________ Course: ______________________

Date: ______________________ Time: ______________________

Instructor: ______________________ Assist.: ______________________

Objectives: ____

____

____

____

Training Aids: ____

____

Handouts: ____

____

CONTENT (Introduction, Presentation, Summary)	METHOD	Est. Time of Compl.

LESSON PLAN
(Continuation Sheet)

Subject:________________________ Course:________________________

Instructor:______________________ Date:__________________________

CONTENT	METHOD	Est. Time of Compl.

Use of Training Aids

A training aid is a tool which makes it easier both for the trainer to present what is to be learned and for the trainee to master it with a maximum of effectiveness and a minimum of wasted time and effort. Training aids accomplish these ends in the following ways:

1. They provide accurate, effective and vivid images that insure correct perception of what is presented to the trainees.

2. They help provide a common basis for learning on the part of the trainees, which their own experience may not provide. A common denominator of understood material contributes to intelligent discussion after their use.

3. They help to provide for clear understanding, lasting retention, and easy recall of the subject matter.

4. They help to simplify and explain complex materials by showing the sequence of a series of operations, procedures, or ideas.

5. They clarify relationships of the total subject matter to its parts.

6. They can substitute for actual equipment when it is not available or is impracticable to bring to the training room.

7. They tend to stimulate interest, to arouse and sustain attention, and to contribute to those positive attitudes that are an essential prerequisite for effective learning.

8. They give training a "reality emphasis" by focusing the trainees' attention on materials that they can see, handle, hear, and see in operation. Thus, learning aids are calculated to give a sense of realism and practicality to the training process. They are based on the premise that real and direct experience, or the closest approximation thereto, is the best foundation on which to build comprehension and understanding.

Varieties of Learning Aids

The variety of learning aids that are available to the trainer is alı inexhaustible. Some of the more important are the following:

1. Flipcharts,chalkboards, magnetic and flannel boards, leaf-overs, and overlays
2. Motion-picture films
3. Filmstrips and slides
4. Projectors
5. Written materials: textbooks, manuals, pamphlets, mimeographed notes, training-session outlines, and so on
6. Training graphics: sketches, graphs, charts, pictures, cartoons, posters, diagrams, maps, and sample forms.
7. Display boards
8. Cutaways
9. Models and mock-ups
10. Trainers and demonstrators
11. Tape recorders
12. Television, (Video Tape Recorder, camera and monitors)

Criteria for Selecting a Training Aid

Since learning aids are tools to be utilized by the trainer for the attainment of a specific purpose (rather than as substitutes for trainer excellence or "gimmicks" for "jazzing-up" a training session) it is important that the instructor be guided by a certain clearly understood criteria in their selection. The trainer who ignores these criteria runs the risk of wasting money, time, and the trainees' co-operative interest. What, then, are these criteria?

1. Is the training aid calculated to attain the specific objective of the training session by motivating trainee learning, arousing interest, holding attention, clarifying core ideas, and emphasizing important points while saving time and effort?

2. Is the use of this particular aid the best means for accomplishing this aim, or can it be better achieved by another procedure?

3. Will it really help the trainee to learn, or will it merely "expose" him to the training aid?

4. Can it be readily integrated into the over-all training session by giving an overview of the topic, practical illustrations of what is discussed, detailed analysis of procedural steps, case study, or review of the principal ideas? Or does it merely serve to provide entertainment, temporary relief from the hard work of the training meeting, or some other extraneous purpose?

5. Does it meet a real need on the part of both the trainer and the trainee?

6. Will it stimulate the trainees to think, and does it provide opportunities for the trainer to ask provocative questions?

7. Does it provide the groundwork for a follow-up discussion on the part of the trainees?

8. Does it help to deepen the trainees' insight into the matter under consideration? To sharpen their critical sense? To increase their ability to analyze and solve problems? To make their own applications? To obtain a more detailed, yet better-integrated, knowledge of the subject matter?

9. Does it stir the trainees to increased desire and ability to express themselves? Or does it make them more passive?

10. Does it add to trainee satisfaction with a particular training session and with the program as a whole?

11. Does it broaden their interests and give them a feeling of accomplishment?

12. Is it attractive? Color, movement, humor, and multiple sense appeal help bring out main ideas and important details.

13. It it simple and easy to understand? Complicated posters, charts, graphs, etc., may defeat their purpose by making the trainee more confused than he was before.

14. Is the aid correct in all details? Training aids should be used to help the learning process; time should not be wasted apologizing for defects or correcting mistakes in them.

15. Is it up-to-date? Films especially can lose much of their impact if such details as styles of clothes, equipment, etc., hopelessly "date" them as being behind the times.

16. Is the aid geared to the intelligence, experience, vocabulary level, and social mores of the group?

17. Can the aid be seen clearly by everyone in the training group when it is in use?

18. Can the training aid be set up quickly and easily, so that it is ready for use and can be used when actually needed without wasting time and running the risk of losing the trainees' attention?

19. Can it be used with various groups and in different training situations, so that the organization may get a fair return on the money expended in providing the aid?

20. Is the aid economical to purchase, borrow, or make and to use?

21. Is it easy to keep in good working order? Is it sturdy enough to stand up under normal, or perhaps abnormal, handling?

22. Can it be stored and taken out of storage easily and quickly?

23. Does the aid have a certain natural attraction, so that it arouses interest?

24. Does it allow the trainer opportunities to test the trainees' understanding of what the aid is trying to get across to them? For instance, does a film give a preliminary overview of the main points to be covered? A summary of the main ideas? Natural transitional points when the trainer may stop the film and have the group discuss either what has preceded or how it might handle a problem that has been presented?

25. Can the aid be tied into what has been previously learned, is now being learned, and will be learned at future training sessions?

26. Does the aid stick to one or at most a few principal ideas, or does it wander back and forth from point to point?

27. Does the aid emphasize what should be emphasized, while keeping subordinate what is of secondary importance?

28. Does it make it easier for the trainer to instruct and for the trainee to learn?

Flipcharts

Perhaps the most frequently used, and often the most abused, training aid is the common chalkboard and its more recent cousin, the flipchart. From the cave writings of prehistoric man to the latest billboard, men have used some kind of writing boards or sign boards to get across more effectively what they were trying to communicate. If the true meaning of a word is the picture that it develops in the mind of the listener, then there will always be an important place for flipcharts and chalkboards in a training program. Familiarity, however, often breeds contempt. Many trainers are so familiar with these ever-present tools that they fail to realize that they often violate at least some of the following suggestions.

1. Make Sure That Your Handwriting Is Legible. Bear down on the magic marker or chalk; it is not meant to be an experiment in subliminal stimulation. Letters to be seen at a distance of thirty feet should be at least 2-1/2 inches high, preferably printed.

2. Plan Your Use Of Space Before Writing. It is annoying and confusing for the trainee to have to jump from one end of the blackboard to the other because of your poor planning. Good planning will also minimize the need for erasing.

3. After You Finish Writing, Get Out Of The Way. Pointers and yard-long rulers were invented because the trainees cannot see through you.

4. Talk To The Class, Not To The Board. Trainees do not want to get things "on the rebound," as though it were a basketball game. Learn to write and speak at the same time, being sure at least to glance at the group frequently while doing so. Never write for any prolonged period, unless you want to lose the attention of the trainees.

5. If You Have A Great Deal To Present, Try To Do So Before The Session Begins. If you cannot do this, use handouts.

6. Ignore The Lower Portion Of The Visual Aid. Trainees at the rear of the room and in the corners probably cannot see it very well anyway.

7. When You Have Satisfactorily Covered One Idea, Procedure, Or Point Clear The Blackboard Completely Or Flip The Chart Sheet. Do not risk having the trainees confuse new material with unerased scraps of old.

8. Watch Out For Glare. Sunlight and some forms of electric light can at times create a very disturbing glare on chalkboards.

9. Make Certain Diagrams And Drawings Are Accurate And Neat. If you have little talent in this direction, use templates and stencils. If you have an opaque projector and wish to display a diagram, map, or other complicated visual aid on the board, simply project the reflected image of the diagram or picture on the board and then trace its image on the blackboard.

10. If You Are Constantly Using Statistical Concepts, It May Help To Line One Section Of The Board Into A Grid.

11. Use Color And Shading. Color and shading not only allow you to emphasize major items by contrast and are attention getting too. Magic markers on flipcharts augment color possibilities greatly.

12. Never Let The Chalk "Screech." Should it screech, hold the chalk at an acute angle with board and in line with the direction of writing, and you will not repeat this annoying mistake.

13. Make Certain That Everything That Is Written Is Grammatically Correct. Errors in spelling and mistakes in English detract from the effectiveness of what you are writing.

14. Organize What Is Written For Its Total Effect. Do not scrawl without a recognizable plan or pattern.

Although a chalkboard or flipchart can be made to serve many uses, the most important are generally the following:

1. Outline What Is To Be Covered In A Training Session. Even a brief outline of the major topics to be covered or the main problems to be considered, especially if it is not possible to duplicate the session outline, can serve both to give the trainees an overview of the meeting and to know exactly how each part fits into the total plan.

2. List Trainee Ideas, Suggestions, Questions, Points Of View, Reasons For Taking A Given Position, Or "Pros And Cons" Concerning A Particular Course Of Action. Seeing ideas spelled out stimulates other trainees to participate, while keeping important previously made statements in the focus of their attention.

3. Enumerate Steps In A Procedure, Process, Or Operation. This has an advantage over handouts since the trainees see each step flow into the following step of the operation.

4. Teach Technical Terms And Their Meaning. When trainees see a technical term spelled out, they are much more likely not only to remember it but also to spell it correctly.

5. Summarize Key Points In The Training Session. This practice tends to give a feeling of completeness to what has been said over an hour or two hour period.

6. Sketch The Interior Parts Of Equipment Without Going To The Trouble Of Taking It Apart. This is particularly true if trainees are having difficulty in understanding a specific section or operation of the equipment.

7. Build Up Gradually, Instead Of Presenting The Entire Whole At Once, A Graph, Table Or Diagram, So That Trainees May Understand Just How The Completed Graphic Came About.

8. Give The Correct Solution To Problems Which Have Been Assigned Trainees.

9. Allow Trainees to Clarify Their Statement Or Arguments. At times such statements may not be clear to others who merely hear them. Writing them on the board facilitates understanding.

10. List Review Questions, Assignments, References, Etc. The trainer should never underestimate the importance or flexibility of these aids in his/her desire to use some of the more sophisticated devices. The chalkboard is more naturally geared to instruction than many other devices. If magnetic, magnetized objects can be moved about with little or no difficulty. Blackboards and flip-charts are also useful for drawings in series that illustrate, for instance, the evolution of a technical process. Covering all but the one drawing that is being considered, and as the discussion proceeds, revealing the rest given an interesting "strip-tease" effect. At any rate, the blackboard affords the trainer more possibilities, with less expense, than any other aid.

11. The Flipchart Is Less Messy Than Chalkboard And The Sheets Can Can Be Saved. However, it is more expensive, and less sound ecologically.

The Art of Questioning

The use of questions can be an effective training technique for stimulating discussion and establishing vital two-way contact between the instructor and the trainees. Properly used, questions add variety and interest by encouraging trainees to participate and keeping their minds alert to the subject under discussion.

There is more than a little to the art of asking thought-provoking questions, and considerable practice is required, therefore, to stimulate constructive group thinking. No less important is the use of questions which keep the discussion on the right track.

Questions which maybe answered "Yes" or "No" have very little use in discussion excepting when they are used in a rhetorical sense, for emphasis, rather than expecting an answer. The leader will have little trouble bringing out discussion if he will aim his questions by using "What," "Why," "Where," "Who," and "How."

Questions should never be asked of the trainees in an alphabetical order. This puts everyone at ease except one person. Nor should the instructor or discussion leader go around the room in regular order with his/her questions. He/she should direct them at all parts of the room and to all segments of the trainee group.

Usually, when asking a question, the instructor should use four distinct steps:

1. State the question to the entire group of trainees, thus getting all to thinking what the answer might be.

2. Pause long enough to allow the trainees to formulate the right answer.

3. Let trainee answer the question.

4. Evaluate the answer and comment on it favorable or otherwise.

By asking a question without indicating who is to answer it, the question is a challenge to the entire group, and not merely to the one who answers it.

One deviation from this method is to ask the group to write their answers to the question individually. Then, ask one member to read the answer. This has the advantage of making each member of the group do some very positive thinking about the question.

Questions need to be clearly and precisely stated, and may even require advance preparation. Instead of asking, "What hinders effective co-operation?" the leader will do much better if he/she phrases it to say, "In your experience what are some of the causes of poor cooperation?" or, "What are some of the reasons that you have observed why people fail to pull together?"

In this manner, the instructor has put the question on a more personal plane; and the trainee is challenged to bring forth from his/her own background an observation which will pertain to the discussion. As much as possible, the instructor should consider the individual trainee when he poses a question. In many cases he will want to take advantage of the work experience which a particular trainee has acquired.

Some discussion leaders are apt to be so full of their subject that they keep on asking questions without giving members of the group ample time to reply. Others will attempt to rephrase an answer from a trainee to include all the information he/she has at his/her disposal. This is defeating to the trainee since it is quite obvious to all that the trainee meant no such thing.

The competent discussion leader employs questioning with these points in mind:

1. That all trainees can hear and understand the question.

2. That only one trainee at a time answers the question.

3. That all trainees have equal opportunity to participate, favoring neither the especially bright, those in the first row, or the eager-beaver. Draw out the timid or reluctant; "jolt" those whose attention maybe wandering.

Frequently, the instructor is asked questions by the trainee group. She may desire to answer some of these questions herself, particularly if she feels that she maybe the only one who may possess the required information. Or, she may elect to "throw back" the question to some group member whose background and experience will assure a knowing reply to the question. This technique of "throwing back" questions to the trainee group is effective in that it gains additional participation, and at the same time establishes the instructor as one who credits the group with a considerable amount of knowledge pertinent to the subject. The instructor, however, should avoid directing the question to an individual whose limited background or experience may not enable him/her to offer a constructive reply.

When it is the wish of the instructor to follow the role of "mediator" rather than "leader," questions can be used to stimulate, guide and pace group discussions. The instructor achieves this by subtly rephrasing direct statements into the form of questions which prompt and direct the discussion without taking the initiative away from the group.

Handouts

Handouts, if used with skill and purpose, can be an effective means of enriching a training session. All too often, however, they are merely passed out at sessions end, inserted dutifully in notebooks, and more than likely never looked at again by the program participants.

To use handouts meaningfully, the trainer should recognize that they maybe used in several different ways: In advance of a session, during the session, and after the session.

1. In advance of a session. Handouts given to trainees in advance of a session are an excellent means of arousing interest in a topic. To the extent that participants are acquainted with some of the ideas that the session will cover, the discussions will proceed with more understanding and interest. "Warm-up" problems can be readily eliminated or minimised.

   Advance handouts also set a business like tone for the class. Participants are alerted to the fact that they have real responsibilities for learning, that learning is a two-way street, and that they should anticipate an active rather than a passive learning experience.

   Some means of using advance handouts to advantage are:

   - As "pre-work." Here the trainees are given a specific task which has to be accomplished as a basis for work in class. This maybe the completion of a checklist, questionaire, or portion of an exercise. Or it may involve the reading of an article or a case which will be discussed in class.

   - As thought stimulators. A list of questions might be used in advance of a given session. The questions might pertain to a lecture, a case, an exercise, etc. The idea is to get some thinking going on the topic before the class meets.

   - As background material. This approach can be particularly helpful when a familiar topic is being introduced.

Note that of the three uses presented above, the "pre-work" approach is the most active, involving and will have the greatest payoff. The latter two approaches are useful, but obviously of lesser effectiveness.

2. During the session. Handouts used during class as an integral part of the learning experience are extremely worthwhile to the extent that the trainees actually work with and discuss the

handout, session goals can be more readily met. Conversely, if the materials are merely "passouts" for the record (or the notebook), little is gained from them.

A simple but useful in-session handout is an outline of key points to be covered.

3. Post session. Although post-session handouts maybe used minimally by the trainees, they still are worth passing out. If nothing else, course participants expect take home materials at the end of a session or course. At their best, they can serve as a useful reference back on the job.

The Division of Training, Regional Training Officers, The Training Centers, and your Supervisor will provide advice and assistance to your training effort.

We have tried to place an emphasis in the TRAINING METHODS MANUAL, on the importance of our effort being directed to the "learning" that takes place.

It is the instructor's responsibility to create and maintain an atmosphere in which "learning" can occur, and to provide the material from which the participant may learn.

It isn't always quite as easy as it may appear, nor is it as difficult as it can be made, but it is always a rewarding experience to try.

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