National Park Service

TRAINING METHODS

Employee Development Division

National Park Service

TRAINING METHODS

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FORWARD

TRAINING METHODS first appeared in 1956, written by Frank Kowski and Julius Eitington. Mr. Kowski and Mr. Eitington each, in turn, served as Training Officers of the National Park Service. The manual was revised by Mr. Eitington in 1967 and was reprinted six times. Gerald Sheerin, instructor at Mather Training Center, served as editor and project coordinator for revisions in 1976 and 1978. The Fourth Edition in 1978 incorporated drawings by Mr. Hugh Brown.

The Fifth Edition was authorized by Reginald (Flip) Hagood, Chief of the Employee Development Division, WASO, as part of the National Park Service's 75th Anniversary Celebration in 1991. Dave Dahlen and Connie Backlund, training specialists at Mather Employee Development Center, revised, coordinated, and produced this revision, with assistance from:

Anne Castellina	Linda Olson	Rick Smith
Dale Ditmanson	Norma Patton	Bill Supernaugh
Haywood Harrell	Patti Reilly	Janet Tucker
Dave Karraker	J. T. Reynolds	John Tyler
Bill Laitner	Jerry Shimoda	

STATEMENT OF PURPOSE - FIFTH EDITION

Historically, experienced National Park Service employees have been called upon to conduct training at the local and regional level, as well as at servicewide training centers. In addition, the growth of WASO sponsored instructor teams in the 1980's highlighted the increasing role of the employee-instructor. Today there is a greater demand for parkwide and regional employee development requiring up-to-date references for classroom success.

The original TRAINING METHODS has served instructors well through the years. It included chapters on adult training, group methods, training aides, and suggested forms. The manual also covered many supervisory techniques for professional development of employees.

While retaining much of the original content, the Fifth Edition has been re-designed to meet the growing demands placed on all NPS instructors by focusing on instructional methods and techniques for the classroom. The intent is to serve the NPS instructor as a ready reference on instructional skills, course coordination, and effective use of classroom media.

INTRODUCTION

The goals of the National Park Service TRAINING METHODS manual are:

* Introduce instructors to general principles of instruction; and

* Familiarize instructors with the common methods of individual and group instruction so they will select the most appropriate methods for the subject material and group being trained

Employee-instructors should anticipate a challenging and rewarding experience. In addition to the satisfaction from assisting in the development of Park Service employees, they will also be improving their own job-related skills.

Often there is a tendency to use an informal demonstration for individual training and a lecture to meet group training needs. Other techniques are available, however, and should receive increasing use as instructors become proficient in their application. 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. Individual techniques are highlighted in PART TWO and the APPENDICES of the Fifth Edition.

Group training, however, requires specific skills and careful preparation in order to be effective. In addition, group training draws upon the experiences of the participants as well as the speakers. Having the mechanical and technical skills to maximize this learning mix is of great importance to the instructor. PART TWO concentrates on the many group training techniques available.

PART THREE of the Fifth Edition explains the proper use of training media available to the instructor. The final part concentrates on the requirements of planning and coordinating training courses.

The limitations of both individual and group instruction can be minimized through (a) selection of the appropriate technique for the training situation, (b) familiarity with how the particular technique can be used to the best advantage, and (c) incorporation of media which complement the presentation. It should be recognized, however, that no one method of individual or group training will fit all situations. Often a variety of methods used in a single presentation can yield the best results.

ADULT LEARNING

PART ONE:

ADULT LEARNING

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Guidelines for Adult Learning

The National Park Service (NPS) Employee Development program guides employees toward improved job skills and enhanced productivity. It is widely recognized that adults learn differently than when they were children. As a result, any NPS training course should be constructed with the characteristics of the adult learner in mind. This approach must be blended with the specialized content of NPS courses to produce the desired learning outcome.

Adult learners. . .

* **must recognize the value and relevance** in any session they attend through focus, objectives, and intent. Instructors should use this concept when making each of their presentations "learner-centered" and "teacher-directed."

* **have past experiences, opinions, and ingrained habits** and are therefore not as easily convinced as their younger counterparts.

* **are most easily persuaded by opinions of many**, not just one. Active discussion among participants in the classroom will allow a sharing of professional and life experiences--an important consideration of the adult learner.

* **learn best by doing.** Studies have shown that within a year adults will forget at least 50 percent of what they learn in a passive way.

* **like diversity in the classroom.** Research has demonstrated that learning proceeds best when information reaches the learner through more than one method of instruction.

* **have a basic preoccupation when entering the classroom.** The instructor should set an atmosphere which breaks preoccupation, and encourages input, discussion, and learning.

REMEMBER: ENTHUSIASM AND ATTITUDES ARE <u>CAUGHT</u> NOT <u>TAUGHT</u>! The instructor can foster proper motivation by planning the course carefully to meet the needs of the participants and by highlighting the importance and relationships of each session. In addition, the instructor's attitude, both in the classroom and after hours, can build an enthusiasm within the group which facilitates the learning process.

Learning Principles

By following these learning principles, the instructor can build an atmosphere of learning:

The Principle of Readiness (Willingness)

A participant will learn more effectively when ready and willing to learn.

* Introduce subject by setting expectations, creating interest, and showing the value to the participant

* Provide for continuous mental or physical challenge and reinforcement

The Principle of Primacy (Right way first)

Adults learn best when a logical progression of information is presented. Adults learn a new step when they have clearly understood the previous step.

* Prepare and use a lesson plan

* Present subject matter in logical order, step by step

* Know the subject matter thoroughly

* Practice for effective delivery

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

The Principle of Effect (Satisfaction)

It is important for the instructor to set up the learning situation so that each participant will be able to achieve some degree of success.

* Select and present subject matter on the level of the class

* Recognize that participants learn best when they can see evidence of progress

* Recognize and commend proper performance or improvement
* Strive to develop accuracy before speed
* Give all students opportunity to achieve success at their own rate
* Realize that a satisfied learner uses skills on the job quickly

The Principle of Intensity (Vividness)

The effectiveness of learning depends upon the vividness of the learning experience.

* Make content meaningful and relevant
* Reinforce important points of instruction with gestures and emphasis
* Use training aids and other instructional materials to provide visual and tactile reinforcement of concepts

The Principle of Exercise (Repetition)

Learning is enhanced by the amount of repetition included in the learning process.

* Repeat important concepts at reasonable intervals
* Summarize major learning points personally or through class activities
* Provide for application of subject matter as soon after instruction as possible
* Use a training instrument which will allow you to check for learning periodically throughout the session

Learner-centered and Teacher-directed Training

In the classroom, the instructor should keep in mind that it is not important what she/he does, but what the participant will be able to do when the training is complete. It follows, therefore, that the lesson should be centered on the PARTICIPANT and not the instructor.

* Communicate the expected performance at the beginning. All participants should clearly understand all aspects of the training, including any performance or assignment which might follow the course

* Ensure that the training experience can be related to individual experiences within the group

* Require that the learner perform a task of some type, either during or following the session/course

* Use relevant, job related problems to stimulate classroom learning

* Develop lesson plans and delivery techniques that keep these concepts in mind and in the classroom

* Provide aids for disabled participants as needed

The Competent Instructor

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

* Know the job or subject you will teach

* Be familiar with the best instructional methods

* Have confidence in your ability to instruct

* Be supportive. Give praise as warranted. Point out errors or shortcomings in a constructive, pro-active manner

* Be tactful in all instructional situations. Avoid "put downs" to any participant. Deal with disruptive students professionally. Be patient with slow learners

* Strive to display a proper attitude and develop proper attitudes in others

* Have enthusiasm for the subject

* Be considerate of all participant questions and show respect for other opinions

* Assume the responsibility to help the learner to learn

* Have the ability to vary the approach to the subject when needed. Shift gears when called for!

* Use proper grammar, diction, and pronunciation

* Have a sense of humor

* Be honest when you do not know the answer. Then find it, for your class and yourself!

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

Selected Readings

Dickinson, G., ***Teaching Adults: A Handbook for Instructors,*** Toronto: New Press, 1973.

Gould, R., ***Transformations,*** Simon and Schuster, 1978.

Howe, M. (ed.), ***Adult Learning--Psychological Research and Concepts,*** Wiley, 1977.

Kidd, J., ***How Adults Learn,*** Rev. ed., Associated Press, 1976.

Knowles, M., ***The Adult Learner: A Neglected Species,*** Gulf, 1978.

Long, H., ***Are They Ever Too Old to Learn?*** Prentice Hall, 1972.

McLagan, P., ***Helping Others Learn: Designing Programs for Adults,*** Addison-Wesley, 1978.

Practical Management Associates, Inc., ***How to Teach Grown-ups,*** (Workbook/Audio Cassette Course), Practical Management Associates, Inc., 1980.

Rogers, J., ***Adult Learning,*** Penguin, 1971.

Smith, B., and Delahaye, B., ***How to Be an Effective Trainer - Skills for Managers and New Trainers,*** Wiley, 1983.

Tough, A., ***The Adult's Learning Projects - A Fresh Approach to Theory and Practice in Adult Learning,*** 2nd ed., Learning Concepts, 1979.

Verduin, J., Miller, H., and Greer, C., ***Adults Teaching Adults,*** Learning Concepts, 1979.

INSTRUCTIONAL METHODS

PART TWO:

INSTRUCTIONAL METHODS AND TECHNIQUES

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Instructional Objectives

In learner-centered instruction, the instructor focuses on what the participant will be able to do, not on what the instructor will present. As a result, the competent instructor builds a session around a set of outcomes desired for the learner, not the teacher. These outcomes are expressed as instructional objectives.

Three components of instructional objectives:

PERFORMANCE--At the end of the session, each participant will be able to actively accomplish a task. Every objective must be built upon this concept. Therefore, every objective must have a stated performance as the end result.

Action/clear verbs (preferred)	**Non specific verbs** (avoid)
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 describe	
To explain	
To list	
To estimate (cost)	

Example: "At the end of this session, each participant will be able to describe the characteristics of a performance-oriented instructional objective."

CONDITION--To describe the conditions under which the performance will be accomplished, OFTEN a condition is added to the objective. The condition identifies limitations and other parameters applied to the performance.

Example: "At the end of this session, participants will be able to, given a list of sample verbs, select an appropriate action verb for an instructional objective."

CRITERIA--For certain tasks, a level of accomplishment may be required or at least desirable. This is specified in terms of quantity, quality, speed, or cost. Criteria are not always appropriate, but when level of accomplishment is crucial, a criterion clarifies the expectation.

Example: "At the end of this session, each participant will be able to write an instructional objective which <u>includes the three elements</u> of an effective objective."

Instructional objectives should at all times be realistic and measurable. They will become the basis for checking for learning and the yardstick by which your effectiveness will be measured.

Lesson Planning

A well planned, organized approach to instructing a session is an insurance policy for success. The lesson plan includes everything the instructor needs to guide him/her to a successful conclusion within the given time frame. It identifies structure, sequence, time lines, and teaching aids. It also is a process by which instructors, through their research, learn more about the topic they will instruct.

Steps in developing a lesson plan:

* Assess your group and their needs

* Identify the instructional objectives for the session

* List all important points which <u>could</u> be made during the session

* Organize the important points in similar blocks. Then sequence the blocks in a logical order, eliminating peripheral ideas that do not meet the primary focus of the session

* Research the topic fully and identify all possible references, resources, and other learning tools which could be part of the lesson

* Identify the time block allowed. If possible, inquire as to the instructional approaches that will be used with the group and strive for different delivery methods

* Draft your lesson plan in a familiar form for consistency of appearance

* When possible, build a sequence which allows for "learn then practice, learn then practice"

* Refine your time estimates throughout the development phase

* Provide for periodic reviews or summaries to check for comprehension

Lesson Plan Design:

Introduction

* Develop participant interest with a "grabber" which has relevancy to the topic! An effective opener can also put the class at ease so they feel comfortable to learn

* State the objectives of the lesson. What will they be able to do?

* Relate the importance of the material to the participants

* Tell what methods will be used, if appropriate (i.e. role playing, activities)

Presentation

* Outline your subject matter in "Content" column

* Note activities or methods to be used in "Method" column, such as discussion, role play, or panel

* Write specific questions to be asked in your outline

* Sequence "learn then practice, learn then practice" whenever possible

* Refine time estimates for each block of lesson plan as you develop your lesson

Summary

This is your opportunity to assure that you have provided the information you promised, and that the participants have learned!

* Summarize the key points made. Have you covered the objectives? If asked, could the participants perform the tasks identified?

* Offer a chance to strengthen weak spots in instruction. Clarify if necessary

* Allow participants to demonstrate and reinforce learning through activities, buzz groups, or actual performance. If the participants haven't learned, the instructor hasn't taught

* Offer opportunity for a summary and a final discussion or questions from the group

NOTE: The wise instructor will keep lesson plans on file for future use. You will never know when you might be called upon to present an "impromptu" session or give a colleague a few suggestions in a topical area. Old lesson plans should never be discarded; they are an investment in your future!

Adapting a Lesson Plan/Using Teaching Notes:

Once lesson plans are finalized, many instructors choose to extract the content and key points and develop teaching notes. This method is recommended when attempting to become less dependent upon the podium for comfort. Classroom notes follow the lesson plan but are rewritten to allow the instructor to circulate in the room. Often they are hand written on index cards for easy use.

Frequently instructors are called upon to teach a session from someone else's lesson plan. This should not present any additional challenge to the instructor. Most instructors revise lessons every time they instruct a subject. Plan ahead, leaving enough preparation time to reshape the previous lesson plan. So long as the instructional objectives are met, there is no problem in adapting a lesson to fit your particular style.

COURSE NAME

LESSON PLAN #

SESSION TITLE:____

SESSION LENGTH:__________**PREPARED BY:**____________________________

OBJECTIVES: At the end of this course, each participant will be able to:

--
--
--

TRAINING AIDS:
HANDOUTS:

CONTENT	Method	Time

SESSION TITLE:______________________________ PAGE ____ OF____

INSTRUCTOR:______________________ LENGTH OF SESSION:______________

CONTENT	Method	Time

Selecting an Instructional Technique (Method)

When developing a lesson plan, the instructor should include several presentation techniques (methods) to cover the material and maintain the interest of the participants. Variety in delivery techniques is essential for effective adult learning.

Instructors should consider the following points before selecting the methods to be used in a lesson:

* The instructional objectives
* The nature and content of material to be presented
* The previous experience and education of the employees
* The length of time which can be devoted to training
* What will be the dominant delivery techniques prior to and following your session?
* How can a variety of techniques be built into your lesson plan? Which techniques best serve your topics?

Classroom Techniques

The Participative Lecture

The lecture approach is the dominant delivery method used in classrooms today. However, it often lacks sensitivity to the adult learner in that it can result in passive, one-way communication. Finding ways to involve participants in a lecture through various participatory techniques will improve the effectiveness of the presentation.

Principle Use:

When the participants have little background in subject area and lack an immediate way to obtain the information, or when there is a large group to be reached in a short amount of time.

Technique:

* Develop your lesson plan, designing the introduction, body and conclusion

* Sequence material in logical progression for ease of understanding

* Intersperse thoughtfully prepared questions that will measure prior participant knowledge in subject. Test for comprehension as you progress. Be sure to keep your lecture on track and review periodically. Allow at least a third of your time for this interaction

* Present the material with a reasoned approach. Make an obvious point, ask the group to take it one step further by answering questions. Draw conclusions from the discussion. Repeat

* Use AV and instructional aids wherever possible. This will stimulate interest and help reinforce key points

* An idea for opening a lecture is to use a quick quiz. This forces thinking, involvement, and sets the stage for your presentation

* Try to add activities to the talk such as: short cases or problems, buzz groups, listening teams, and role-playing. This is especially effective toward the end of your session to reinforce concepts and test for comprehension

* Handouts help! These can be an outline of the talk, programmed notes, work sheets, articles, copies of graphs or transparencies. Be sure to let the group know if you have handouts which cover your lecture!

* Avoid the podium or lectern. It can make for a stilted performance. Also, <u>never read a talk</u>; use note cards instead

* Be assured of your outline and content through practice. This will enable you to move around a bit and maintain eye contact and continuity

* Prepare your lecture to use gestures, voice control, and other presentation/performance skills

Tips:

* Guest speakers should be scheduled only if they will contribute directly to objectives

* If you are selecting a guest speaker, attempt to find the most knowledgeable person with demonstrated presentation skills

* Clearly define the objectives to all speakers. Make sure they realize the importance of participant performance at the completion of their lecture. Also, set limits on time and encourage the use of questions throughout

* Participative lecture should not be used when teaching a skill

Pitfalls:

* Relatively few lecture-oriented speakers are skilled enough to maintain listener interest for more than a short period of time

* Since lecturing is passive, one-way communication, retention is likely to be low

* Many participants are reluctant to interrupt a lecturer who has much ground to cover. As a result, unclear or controversial concepts are frequently unchallenged

* It is difficult for the lecturer to develop a rapport with the participants because of limited time and lack of interaction

Discussional Techniques

A variety of effective methods involve participant discussions. The obvious advantage to discussions is that they involve adults, thereby attempting to meet their needs and characteristics more closely. The discussion is a learner-centered activity. Several discussional approaches are defined in the following sections. The gathering and exchanging techniques are applicable to all discussional methods.

Gathering Approach:

Principle Use:

When the instructor wants to test prior knowledge, develop a list, compile, organize, or poll the class.

Technique:

* Instructor plans a question, asks the question, and gathers participant responses. Often responses are listed on a flip chart

* Questions usually draw from commonly held information and elicit brief responses

* Instructor maintains a quickly-paced approach to gaining answers

Pitfalls:

* Overused, this method is monotonous

* Often lists are produced which simply "hang there," with no follow-up discussion

Exchanging Approach:

Principle Use:

When instructor wants to take advantage of knowledge, experiences, and opinions of the class. Also, when discussing controversial issues, changing attitudes of some members of group, developing group consensus, or determining new directions.

Technique:

* Instructor should have a clearly identified learning outcomes

* Instructor plans question carefully, identifying many possible responses, asks the question, acknowledges answers

* Instructor keeps responses moving and facilitates a variety of responses by being supportive and drawing out many opinions from the group

* Instructor sets parameters for discussion. Instructor identifies limits or restricted topics so that he/she may direct discussion away from these areas without alienating individuals

* Instructor encourages discussion to become centered in the group

* Discussion responses are periodically summarized for clarification and organization

* Questions often draw from participant experience or knowledge, but also require opinions and more elaborate responses

* Instructor rephrases any direct statements into questions for the group to consider

Tips:

* Allow venting to take place if strong disagreement develops, then ask for other opinions or redirect the discussion

* Maintain active involvement in the discussion to retain control

Pitfalls:

* Loss of control

* Instructor opinions come out too soon in discussion, stifling the generation of a group opinion or consensus

* One person might try to dominate

* Side and tangential conversations can distract

* Arguments between participants must be avoided

* Don't challenge an individual

* Time consumptive

* Limited by group size and knowledge of topic

Demonstrations

Demonstrations are staged showings or illustrations, usually of a process, task, or piece of equipment. For best results, the learners should have an opportunity to practice what has been demonstrated. Well conducted demonstrations reduce student errors when the perform the task back on the job.

Principle Use:

When a physical skill must be learned in the classroom setting, or when demonstration of that skill is necessary for satisfactory completion of a training session.

Technique:

* Instructor discusses entire process
* Instructor performs activity as a whole before the class
* Instructor demonstrates steps individually
* Group or individuals perform the activity, with instructor supervision and corrective feedback

Tips:

* Identify the learning objective
* Be sure the tools, apparatus, or materials are in good working order and are not likely to malfunction
* Rehearse complex demonstrations before the presentation
* Make sure the demonstration can be seen. Don't block the object or activity. Use TV cameras and monitors if serving a large group
* Do not allow the mirror-image problem to confuse you or participants
* Talk as you demonstrate. Don't talk idly

* Give the participants a chance to see the complete act or operation as a unified whole. Then repeat it with more emphasis on each part
* Ask questions of the group periodically to see if specific points are understood. If for any reason an error is made in the demonstration, be sure to follow it with the correct method so the participants understand

Pitfalls:

* Mechanical breakdowns
* Demonstrations require time. Often unexpected problems develop which cause the session to run long. Different learning rates can become a distraction to all
* Large groups sometimes create impossible logistics
* Be cautious in the use of wrong way demonstrations. Some individuals will remember them instead of the correct way

Buzz Groups

Small group discussions centered on a specific question, issue, or concept. This technique promotes more participation by individual members of the class.

Principle Use:

When small group discussions will facilitate broader coverage of material. Case studies, comparing/contrasting, reviewing components of a document or film. Covering more material in a shorter amount of time is a reason to consider this method.

Technique:

* Groups are given a specific, clearly stated assignment
* Group size limited to 4-6 optimum
* Discussion time (buzzing) is generally about 20 minutes

* Groups select moderators who are given responsibility for group completion of assignment and planning reports

* Each group discusses a particular problem, develops a point of view, and plans a report for the whole class

* Group findings are reported to the class by representatives of each buzz group

Tips:

* Give groups clear instructions on discussion, time length, and expected product

* Allow groups to appoint their own group leader to present their findings to the class

* Check on groups shortly after they have begun to assure understanding of assignment and expectations

* Give groups a warning when time is short

* Review the class roster before the session and assign group designations to ensure balance within each group (i.e. experience) and to facilitate the break-out process

Pitfalls:

* Can be time consuming if not well planned and controlled

* If not tied back into class, activity will be pointless

* Unclear directions will cause groups to wander

* Method becomes monotonous when overused

* Individuals may dominate the proceedings and prevent others from participating

Brainstorming

This is a generation of a list of possible ideas which a group creates without evaluation, making it easy for all participants to become involved.

Principle Use:

In the problem solving process, the open generation of a list of ideas will likely include a central core of attractive options. The goal of this exercise, however, is generating quantity, not quality.

Technique:

* Instructor asks a question or outlines a problem with many possible responses
* All responses are listed on the board or flip chart. No evaluation of responses is made during the process
* General grouping of responses takes place. Occasionally the nominal group process, described later, is used to condense these lists
* The groupings can then be placed back into the lesson for further exploration, evaluation, and possible use in other methods such as buzz groups or open discussions

Tips:

* The instructor must have a clear learning objective in mind
* The question prompting the brainstorm must be clear and focus the group from the start
* List responses in participants' own words, unless a clarification is needed
* No judgement of individual responses can be allowed, either by instructor or other participants

Pitfalls:

* A list is generated without follow-up
* Listing strays from original intent
* Evaluative statements bias the listing process

Role Playing

These are commonly short skits acted out by and for class members illustrating problems, issues, and identifying a focus to be used in general class discussion.

Principle Use:

When difficult issues involving emotional or personal elements need to be addressed; when the dimensions of a problem cannot be fully understood by all in the class without a clear example.

Technique:

* Learning objectives should be clearly identified
* Usually 2-3 players per skit
* Instructions are given in advance or it can be handled spontaneously. Encourage players not to exaggerate skit
* Instructor gives directions to "audience" so they will understand what to look for in the skit and what is expected of them in the follow-up discussions
* Group evaluates what occurred during the skit. The leader should be careful to guide the group toward a discussion and analysis of the interactions during the role play. 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

Tips:

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

* The skit should be clear and simple. The best skit is one which is short and to the point

* Much of the value of role playing comes from audience observation and discussion of the skit. It is important that the audience recognizes its assignment to analyze the activity

* The role players tend to do a better job if they see that the audience also has an assignment

Pitfalls:

* Time consuming

* When role players "ham it up," it becomes a stereotype or just entertainment, losing its educational potential

The Panel

A group of subject matter experts, consisting of a moderator and three to six members.

Principle Use:

When a range of subject matter experts are available to offer differing opinions on similar issues or present individual parts of a larger story.

Technique:

* Learning objectives for the session is clearly defined and communicated to the panel

* Moderator explains the goals and rules for the panel and participants

* Moderator makes sure all speakers are clear on the time allotted to their portion of the presentation, and that they will be cutoff when that time has elapsed

* Moderator introduces the session, then poses a leading question to each panel member for individual response

* Moderator asks follow-up questions as necessary for clarification or further coverage of the material

* At the conclusion, questions are directed from participants to moderator, who directs the question to a particular panelist

Tips:

* Be sure all panel members can be seen and heard

* Directing questions through the moderator assures that they reach a qualified panel member for response

* The panel moderator must be prepared to rephrase a question when it becomes evident that the participant is not obtaining the response desired

* Moderator summarizes and connects the points made at the conclusion of the questioning period

Pitfalls:

* Moderator often allows structure to disintegrate

* A panel member may seize the opportunity to "soap box," digressing from or ignoring the direction of the discussion

* If a poor summary is made at the conclusion of the panel, relevancy is lost

Group Problem Solving

This is an expanded version of the buzz group, similar in group structure, but problem complexity and time allowances are greatly expanded.

Principle Use:

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, resources management, or rescue operations are particularly well suited to problem solving. The problem can be a culminating experience which will test the participant group in the application of the principles learned in a session or course.

Technique:

* Instructor clearly defines the problem. Use of a briefing statement is suggested
* Instructor assigns tasks to groups, defines parameters and product desired, clarifies as necessary, then monitors each group's activity to observe positive/negative behavior and progression on time line
* Group addresses problem through discussion, role playing, or other methods as defined by instructor
* Instructor notes strengths and weaknesses for inclusion in critique later

Pitfall:

* Requires considerable advance planning and preparation for the physical staging of the problem

The Critique

The principal aim of the critique, from the training standpoint, is to disclose to the participants the options which were available during various stages of an operation or activity. It is possible that the critique may reveal mistakes, errors in judgment, or more effective techniques that were overlooked. These disclosures in themselves have training value.

Principle Use:

The critique reviews an actual management operation, product, incident, or presentation. The case used is generally confined to a real human relations or job situation.

Technique:

* Once the activity or operation has been acted out, observed, or read, the critique leader reviews the problem, from the initial action taken to the conclusion of the incident

* Leader furnishes basic information at the beginning of the critique so that all members consider the same facts

* Participants should explore these questions:

  What are the available facts?

  What are the problems evident in the situation?

  What were the possible courses of action?

  What might have been the best course of action?

* Frequently, no pre-determined answer is possible, and unanimity of response is not expected

* Critique leader guides group through the above steps, one at a time

The value of the critique is to have the participants think about different aspects of the problem or operation. The leader can stifle their voluntary participation if he/she has too many pat answers or is critical of participant contributions.

Tips:

* Never hold a critique for the sole purpose of finding fault or pinning the blame for inefficient operations on an individual or any group

* A critique should be a constructive experience for all concerned

* Insist that all participate. Usually, as the critique progresses and the participants realize what is going on, initial resistance wears off

* Leader should be highly permissive and non autocratic. Leader should raise questions occasionally but not provide the answers, pass judgement, or criticize

* Leader should assure that any action items or follow-up responsibilities and deadlines are noted for the record

* A critique worksheet is useful for recording information and targeting the participants comments. The worksheet may include various categories to consider as they review the activity

Case Study Method

The primary purpose of the case study method is to stimulate thinking and discussion. It is often advisable to use cases from outside the NPS to illustrate certain management concepts. Groups should be shown the universal application of such cases to ensure enthusiastic participation.

Principle Use:

Case studies help participants learn general principles, implications, issues, and interchange views on particular problems. Case studies help reduce rigid attitudes toward the correct answer concept.

Technique:

* Role of the Leader:

    Develops or uses realistic problems

Encourages group members to discuss a problem through questions planned in advance

Encourages free discussion and refrains from serving as "the expert" or lecturer

Raises questions which encourage relevant thinking

Terminates the group discussion and lists solutions on a board

Deflects comments such as, "We do not have enough facts to make a decision." Assures participants that adequate facts are at hand. It is unrealistic to ever hope to have <u>all</u> the facts about a problem involving people

Recognizes that it is not essential that the group agree on a "best" answer. The case study session often illustrates alternative solutions and is successful when it stimulates thinking, awareness, and insights into a problem area. It should be obvious that a better decision is possible if they can choose from more than one alternative

Concludes the session with a short summary highlighting key points made. Disseminates readings and handouts bearing on the topic

Does not provide "school solutions" about the case

* Participants Role:

  (This material should be reproduced as a handout to accompany the first case which is given to the participants)

  Read case thoroughly

  Analyze and discuss the case with the group

  Develop a clear picture of the situation being studied. Ask, "What is going on here?"

  Use the imagination. It is never possible to secure all the facts about a management situation

Pay particular attention to the attitudes, values, aspirations, anxieties, and feelings of the people involved

Distinguish carefully between known facts and opinions, inferences, and assumptions by the characters in the case, as well as your own

Clarify the problem. Ask: "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?"

Determine the alternatives and the key factors, pro and con, in deciding the solution. There may be several possible solutions to a problem, and the best choice depends on identifying the crucial differences among the solutions. Additional questions to ask are: "Am I merely treating symptoms or, more properly, the basic causes?" "What is the likelihood of the proposals succeeding?" "How will the people involved react to the course of action I favor?"

Listen accurately to group members. Be sensitive to their opinions. Try to understand other points of view

Express all likes and dislikes openly. Do not try to rationalize such feelings

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

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 management problem solving skills with other seasoned supervisors

Note the management principles or concepts which the case points up. These ideas will be drawn from the group and placed on the chalkboard by the case discussion leader

Tips:

* Frequently there is no single solution to a problem, there may be several solutions, or even no solution

* Encourage respect for the views or solutions of others

In-Basket Exercises

This exercise simulates a part of a manager's day when she/he is confronted with an in-basket.

Principle Use:

For management or supervisory sessions when individual performance will be critiqued. The in-basket contains a variety of letters, memos, reports, complaints, requests, and press clippings. All require some action.

Technique:

* A group observes the manager working through the basket, making decisions, setting priorities, and accomplishing work
* There obviously is no "right" answer to any problem in the exercise
* Following the exercise, the instructor leads a discussion on the manager's effectiveness

Tips:

* An instructional objective must be identified
* The in-basket must resemble a realistic set of administrative, operational, and personnel problems with varying degrees of difficulty. Some problems should have significant organizational interrelationships, some should be mundane or ordinary
* The exercise is conducted with a deadline (i.e., half hour)
* Decisions should be reviewed in the critique format, buzz groups, or general class discussion to enhance learning

Fishbowl

Principle Use:

It is particularly valuable as an opener for a session, a role play, or a device to help viewpoints emerge for general group analysis.

Technique:

* Divide the participant group in half (not greater than 7 per group). Sub-group "A" forms an inner group; sub-group "B" forms an outer group

* Group A is assigned a topic to discuss for 10 to 20 minutes. Group B observes and listens <u>silently</u>

* The groups trade places. The new inner circle then discusses the views of the first group and their own ideas on the topic. The new outer circle observes and listens silently

* The above procedure may be repeated if 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, and supportiveness. 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

Tips:

* A variation of this is to allow a panel of experts to discuss or debate a question, then follow with a whole group discussion of the concept AND the expert group discussion

Nominal Group Process

In order to distill a variety of concepts, suggestions, or ideas into a manageable block of subject areas, the nominal group process can be a useful tool.

Principle Use:

This method allows group control over the outcome of the session through a democratic process. This is helpful when verbal consensus may take too much time, yet decisions must be made.

Technique #1:

* Instructor facilitates the generation of ideas through a normal brainstorming process

* When entire list becomes unmanageable, elimination must take place

* Instructor asks participants to identify the 3-5 (variable) most significant subjects on the list and write them in priority order on an index card or sheet of paper and place values of 5-4-3-2-1 on each

* Instructor collects cards and tallies votes. List is then prioritized according to the vote

* Where a clear and obvious break occurs in the rankings, a cut-off line is drawn

* Instructor and group then decide if remaining list is manageable. If it is not, the process is repeated until the list is workable

Technique #2:

* Each participant is given three dots (red, blue, blue)

* Ideas are generated through brainstorming process

* Participants place the red dot next to their first priority choice and the two blue dots next to their next two priorities

* The instructor quickly assesses the responses. Red dot tally becomes workable list or process is repeated

The net result is that everyone has equal input, even those in the group who are not as vocal in open discussions. Ownership of the final product rests with the group.

Tips:

* Make sure everyone understands that the outcome of the process will be final. No negotiations

* Be certain that everyone has a chance to comment verbally on the list before voting

Experiential Learning and Field Trips

Adults learn best when they are active participants in the process. Whenever possible, involve adults in an activity which allows them to demonstrate their skills, learn through discovery, and share previous knowledge.

Primary Use:

Specific classroom activities can be developed which allow experiential learning to take place. Demonstrations, role plays, games and simulations, acted scenarios, and contrived situations are some of the more common methods. In addition, the field trip can be a valuable experiential learning activity if conducted with this concept in mind.

Experiential Learning

The activity you develop must clearly demonstrate the key concepts you wish the students to learn. After the activity, you may use any number of follow-up classroom techniques to reinforce learning such as buzz groups, exchanging discussions, or brainstorming.

Technique:

* Explain the activity (e.g. role play, game/simulation, case study, or contrived scenario)

* Conduct the activity

* Complete a follow-up discussion, report, or other group exercise which focuses on the key concepts

Tips:

* Be certain the group understands the objective, process, and follow-up expectations for the activity before it begins

* The experiential method must involve all participants

* Often the apparent purpose of the activity is really secondary. Be alert to experiential activities (games and simulations) which teach an underlying principle (teamwork, group dynamics, or problem solving). The activities offer learning opportunities, in addition to the content focus

Experiential exercises, placed carefully within a lesson plan, offer the participant an opportunity to learn under supervision and the instructor an opportunity to check for comprehension.

Field Trips

Like other experiential exercises, the field trip must be an integral component of the course as a whole. Field trips can also serve as a culminating experience for the group, reinforcing concepts and skills.

Technique:

* Identify the objectives for the trip

* Clearly state these expectations prior to the trip

* Assure that the learning objectives are met through questioning, redirecting speakers, and conducting short group discussions, if logistics allow, while on the trip

* Assure that breaks, lunch, and other comfort items are well planned

* Allow a few minutes "lost" time for travelling and wrong turns. It always takes longer when you're on the road! Stay on schedule--only deviate when absolutely necessary

Tips:

* Follow the trip with a class discussion

* Check to see if the objectives were met through direct questioning of the group

Questioning Techniques

Proper questioning technique is essential to an instructor using any of the methods of instruction outlined in this manual. Poor use of questions will impinge on the speaker's effectiveness.

Technique:

* Determine the type and level of the question and its placement in your lesson plan

* Write the question in advance, revise to make as concise as possible

* Ask the question of co-workers to see if their responses are similar to your expectations

* Write the question clearly in your lesson plan and ask it as planned

* Wait patiently for a response. If none comes, rephrase the question and try again!

Types of Questions:

Individually Directed--One person is asked spontaneously to provide an answer. These do keep everyone alert!

Group Directed--No one individual is called upon to answer the question, it is open to all to consider. Creates less stress and everyone can think about the question or topic.

Closed Ended--Simple answers, often requiring yes or no, without elaboration. Good for listing and gathering.

Open Ended--Questions which require thoughtful responses. Good for opinions, experiences and feelings.

Immediately, it is clear that the type of question asked will have a specific impact on the group. A group directed, closed ended question is easy for the class to handle. An open ended, individually directed question would be most successfully asked of someone who has demonstrated a mastery of the subject.

Levels of Questions:

The complexity of questions can be varied throughout a presentation as well. These levels are important when planning your questions:

Recall--requires participants to simply draw upon past facts, experiences, and common knowledge to answer. Usually one or two word answers satisfy these questions.

Process--requires participants to use past knowledge and current topic to analyze a question for response. This question often calls upon participants to compare concepts and identify relationships.

Application--participants must use past and present knowledge to forecast a result from a set of circumstances placed before them. They must speculate on an outcome, predict or anticipate.

The degree of difficulty and stress rises in each succeeding level. The skillful instructor will plan to use the various levels, in sequence, throughout a session to stimulate discussion, check for learning, and encourage participants to "think the material through."

Tips:

* If asking an individual a question, call his or her name first, then ask the question. This will minimize surprise and maximize the chance for the individual to succeed

* Ask group directed, recall questions early in a discussion, more difficult questions later; work through a sequence of levels of questions

* Phrasing is important. When asking the group for a negative example, phrase the question, "When have you seen others fail to . . ?" When asking for a positive example, phrase the question, "When have you experienced success. . ?" or "What have you done which illustrates how this concept can be achieved?"

* If asked a question by the group, put the question back to the group and offer your response ONLY after the consensus of the group has become clear. If you give your opinion too early, you will affect the discussion dramatically

* To facilitate additional discussion, rephrase direct statements into the form of questions which prompt and direct the discussion without taking the initiative away from the group

Icebreakers/ Openers/Closers

Opening and closing a training session/course is often overlooked when planning for successful training.

Icebreakers:

* Break preoccupation of group members

* Begin the group dynamic process

An icebreaker is a light, fast-paced activity which gets participants involved with each other quickly and painlessly! It is important that such interaction begins as soon as possible. Some form of an icebreaker should be considered for the beginning of any session.

Openers:

An opener takes the icebreaker one step farther. An effective opener not only begins the session, but also introduces the subject by incorporating an element of the material into the activity. An opener is relevant to the topic covered in the session or course.

Closers:

In addition to the well planned opening activity, a wise instructor will include a relevant, carefully planned closer for a session/course as well.

Closers should also reinforce key concepts covered through the course and involve as many group members as possible.

Closers can be:

* A group summary activity, such as buzz groups

* An individual action plan, written by the participants in the classroom and dedicated to what they will do to follow through back on the job

* An inspirational presentation/quote/reading, which leaves group with strong emotional reinforcement of the topics covered

Tips:

* Relevancy is paramount

* Be brief, do not drag it out. Participants DO want to leave by the end of your session or course

Pitfalls:

* "One last thought before I close. . . " "And, finally. . ." "Oh, I have just one more thing. . ." "Are there any questions before we break for lunch??"

General:

* Start and end all sessions on time

Seating:

* Vary the seating arrangement during your course, including changing individual seats if appropriate

Transitions:

* Connect sessions within the course with statements, comparisons or tie-ins

* Review previously covered material in small groups to reinforce learning and facilitate connections and retention of concepts

Rewards:

* offer serious (or gag) rewards to buzz groups or individuals for contributions to the overall learning process

Classroom Environment

Most individual and group training, except for that performed on-the-job, is conducted in a classroom or a training center. To assure the maximum mental and physical involvement by the participants, the instructor should establish a comfortable, informal classroom environment:

Pre-course:

* Adequate lighting and ventilation are a must at all times

* All necessary materials and supplies should be easily accessible to students

* Chairs and tables should be comfortable

* Reduce or eliminate potential distractions such as noise or odors

Classroom Arrangement:

* Classroom should be neat, organized, and present a professional impression to participants when they enter

* Seating arrangements are particularly important to facilitate discussions:

  Options are:

  Traditional classroom (e.g. high school)
  Auditorium seating (chairs without tables)
  "Chevron" table arrangement
  Circle/square arrangement
  U-shape arrangement
  Islands

If practical, the U-shape, circle, or square arrangements are the best designs to facilitate learner-centered discussions.

Classroom Conduct:

* Distracting noise or other disturbances should be minimized Including chatter by other instructors observing sessions! If instructors must talk, they should leave the room

* An optimum time for any single session, or portion of a session, is one to one-and-a-half hours, followed by a break. Variations depend on content and amount of activity built into session

* Sessions should start and end on time. Participants will quickly realize the importance you place on the flow of the course and the respect you have for them if you follow the schedule. They will tend to be more punctual if you demonstrate the importance of the time line. Reconcile time problems in the session/course planning phase, not during the course!

* Humor (in good taste) helps to relax participants

* Alert guest instructors in advance to any classroom issues or problems which may affect their session

* Instructors should always show respect for their classes by wearing suitable, clean clothing

Options:

* Outdoors. If weather conditions and other potentially distracting factors such as seating, sunlight, wind, and insects allow, a class out-of-doors is an excellent change from the indoor routine

* Classroom without walls. The session is conducted on-site to inspect structures, facilities or problem areas, and often moves to several locations. This is an excellent method for direct involvement with concepts, sites, and resources being taught

ONE-to-One Techniques

The Coaching Method

This approach is effective in on-the-job (OJT) situations where a supervisor and a subordinate, or an experienced employee and a relatively inexperienced employee, are working together. The supervisor assumes the role of the coach, or trainer.

Role of the COACH

* Plans a variety of work opportunities for a new employee, anticipating work requirements and arranging schedules to accommodate learning in an organized, logical manner

* Assigns tasks that relate and are logical. Advises other workers in advance that a trainee will be assigned and makes them aware of the importance of cooperation

* Allows a new employee a voice in planning work/training opportunities

* Relates job experiences to prior employee knowledge or other job requirements whenever possible; connects the OJT to other aspects of park operations

* Provides an accurate example of how the work is to be done, so that the employee learns the right way of doing the job

* Provides for discussion time for clarification, questions, and other dialogue between coach and pupil

* Demonstrates a personal interest in the development of the employee

Field Training Officers (FTO's)

A coaching concept long used in law enforcement organizations, the FTO is responsible for ensuring that new employees are given the orientation and information necessary to perform their jobs. It is especially important for new staff to develop a sense of purpose and perspective from the start of their careers. In the law enforcement context, this mentoring is conducted after the employee returns from basic law enforcement training.

Technique:

* New employee is assigned to a senior employee

* Training includes classroom, ride-along observations, discussions and counseling with experienced employees

This is accomplished in many ways, but at a minimum, a checklist of relevant policies, information, and procedures should be completed. At its best, this training concept develops standards which remain throughout an employee's career.

Programmed Instruction

Programmed learning involves the presentation of small units of instructional material in a highly organized way called a program.

Technique:

* Instruction is in self-paced modules, progressing from the simple to the complex

* Each correct response results in advancement to the next module or "frame"

* Each incorrect response results in a review of the material and a new opportunity to learn the subject correctly

* The learner strives to achieve a specific form of learning known as a terminal behavior. This behavior should be communicated to the employee in the form of instructional objectives in the beginning of the program

* The learning process makes constant use of feedback. Participant learns immediately if his or her response is correct, and the reward is advancement to the next frame. The learning psychology used is that of reinforcement

Advantages:

* Participant progress is relatively easy to monitor

* Since the participants proceed to a good degree on their own, the instructor is free to provide help where most needed. In effect, the trainer becomes a tutor

* The instructor can be certain that all students know the answers, are proceeding at their pace, and meet the same standard for learning

* Programmed instruction can serve as a supplement to other forms of instruction

Pitfalls:

* The technique is most properly suited to master a skill or to acquire specific, technical knowledge. It is not well suited for conceptual training

* Fast-paced learners may be discouraged by the step-by-step learning process. Sometimes this is overcome by allowing the learner to branch-off to other programs

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

Selected Readings

INSTRUCTIONAL OBJECTIVES/LESSON PLANNING:

Alexander, L., and Davis, R., ***Writing Useful Instructional Objectives,*** Michigan State University, 1977.

Birnbrauer, H., ed., ***The ASTD Handbook for Technical and Skills Training,*** American Society for Training and Development, 1985.

Craig, R., ed., ***Training and Development Handbook,*** (Sponsored by American Society for Training and Development), McGraw-Hill, 1976.

Friesan, P., ***Designing Instruction,*** Ottawa, Friesan Kaye & Associates, 1971.

Gagne, R., ***The Conditions of Learning,*** 3rd ed., Holt, Rinehart and Winston, 1977.

Goad, T., ***Delivering Effective Training,*** University Associates, 1982.

Mager, R., ***Preparing Instructional Objectives,*** 2d ed., David S. Lake Publishers, 1984.

Ribler, R., ***Training Development Guide,*** Reston, 1983.

CLASSROOM TECHNIQUES--General References:

American Telephone and Telegraph Company, ***The Trainers Library - Techniques of Instructional Development,*** Addison-Wesley, 1987.

Eitington, J., ***The Winning Trainer,*** Gulf, 1984.

Pike, R., ***Creative Training Techniques Handbook,*** Lakewood Books, 1989.

Practical Management Associates, Inc., ***How to Teach Grown-ups,*** Practical Management Associates, Inc., 1980.

Smith, B., and Delahaye, B., ***How To Be An Effective Trainer - Skills for Managers and New Trainers,*** Wiley, 1983.

THE PARTICIPATIVE LECTURE

Bligh, D., ***What's the Use of Lectures?*** Penguin, 1972.

Goldstein, I., ***Training: Program Development and Evaluation,*** Brooks-Cole, 1974.

Mumford, A., ***The Manager and Training,*** Pitman, 1971.

DISCUSSIONAL TECHNIQUES

Abercrombie, M., ***Aims and Techniques of Group Teaching,*** 3rd ed., London, Society for Research into Higher Education, 1974.

Brilhart, J., ***Effective Group Discussion,*** Wm. C. Brown, 1974.

Hyman, R., ***Improving Discussion Leadership,*** Teachers College Press, 1980.

Potter, D., and Anderson, M., ***Discussion in Small Groups: A Guide to Effective Practice,*** Wadsworth, 1976.

CASE STUDY METHOD

Craig, R., (ed.), ***Training and Development Handbook,*** 2nd ed., McGraw-Hill, 1976.

Engel, H., ***Handbook for Creative Learning Experiences,*** Gulf, 1973.

QUESTIONING TECHNIQUES

Saunders, N., ***Classroom Questions: What Kinds?*** Harper & Row, 1966.

ICEBREAKERS/OPENERS/CLOSERS:

Forbess-Green, S., ***The Encyclopedia of Icebreakers,*** University Associates, Inc., 1983.

ONE - TO - ONE TECHNIQUES:

THE COACHING METHOD

Deegan, A., ***Coaching,*** Addison-Wesley, 1979.

Fournies, F., ***Coaching for Improved Work Performance,*** Van Nostrand Reinhold, 1978.

PROGRAMMED INSTRUCTION

Bullock, D., ***Programmed Instruction,*** Educational Technology Publications, 1978.

Craig, R., (ed.), ***Training and Development Handbook,*** 1st and 2nd ed., McGraw-Hill, 1967 and 1974.

Goldstein, I., ***Training--Program Development and Evaluation,*** Brooks/Cole, 1974.

Thiagarajan, S., ***The Programming Process: A Practical Guide,*** Charles A. Jones, 1971.

CLASSROOM MEDIA

PART THREE:

USING CLASSROOM MEDIA EFFECTIVELY

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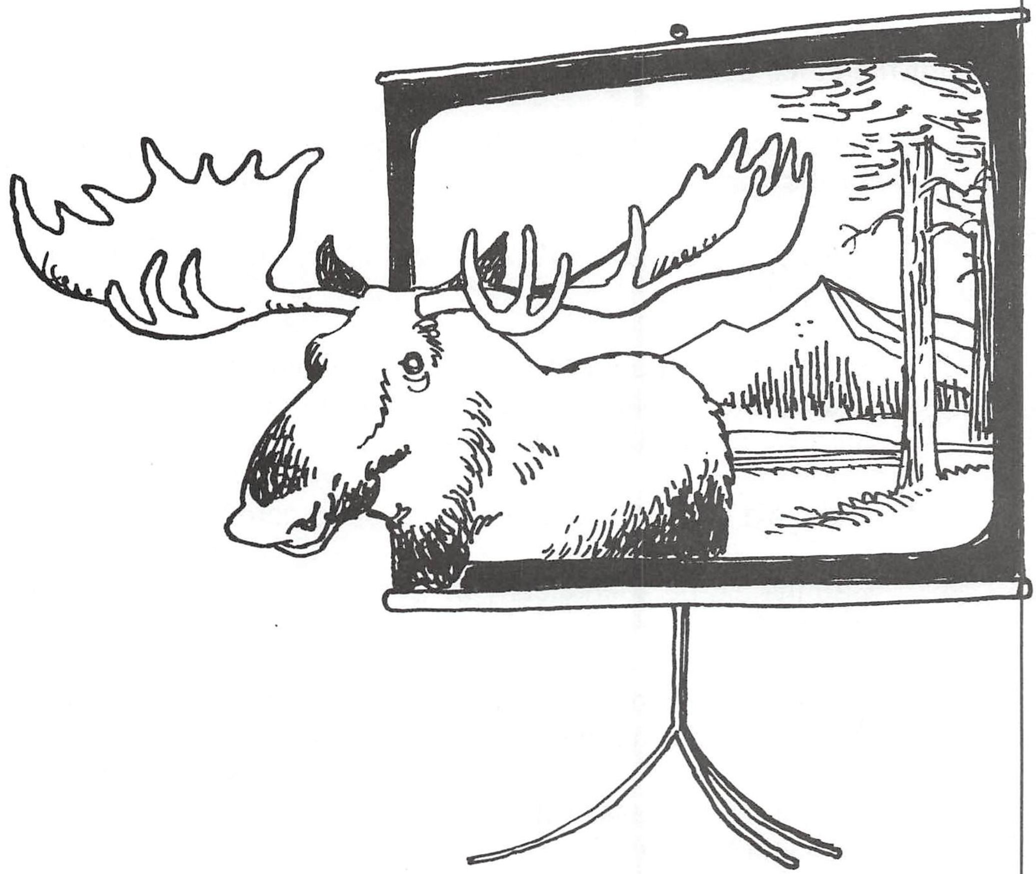


Introduction

A training aid makes it easier both for the trainer to present what is to be learned and for the participant 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:

* They provide accurate, effective, and vivid images that insure correct perception of what is presented to the participants

* They help to simplify complex materials by showing the sequence of operations, procedures, or ideas

* They can substitute for actual equipment when it is not available or cannot be brought to the training room

* They tend to stimulate and sustain interest, essential prerequisites for effective learning

Criteria for Use:

* Is the use of the medium the best way to achieve the objectives for the session?

* Is it visually stimulating? Consider color, movement, humor, and use of senses

* Is it simple and easy to understand? Complicated posters, charts, and graphs, regardless of medium used, may defeat their purpose by confusing the participants

* Is the aid correct in all details and up to date?

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

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

* Does it make it easier for the trainer to instruct and for the participant to learn?

Chalkboards, Whiteboards, and Flipcharts

Perhaps the most frequently used, and often the most abused, training aids are the common chalkboard, whiteboard, and their cousin, the flipchart. 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, whiteboards, and chalkboards in a training program.

Tips:

* Make sure that your handwriting is legible. Letters to be seen at a distance of 30 feet should be at least 2-1/2 inches high, printed clearly. Lined flipcharts help keep the writing level and neat

* Plan your use of space before writing. Lay out your "boardwork" on a practice sheet before doing the final. Use lightly written pencil notes and tabs on flipchart paper to help you locate your material properly

* Talk to the class, not to the board. Write it out, then turn back to the class

* Ignore the lower portion of the board or pad. Participants at the rear of the room and in the corners may not be able to see the bottom portion of your aid

* Make sure everything that is written is spelled correctly and grammatically correct

* Make diagrams and drawings 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 on the board and then trace its image on the blackboard

* Use color and shading. Color and shading not only allow you to emphasize major items by contrast but are attention-getting, too. Use a variety of colors on flipcharts and whiteboards. Remember also that red, orange, and yellow are hard to read by many. Keep flipchart and whiteboard markers separate!!

* Always test a marker before hand to assure that it is fresh and readable. Never let the chalk or marker "screech." Hold the chalk or marker at an acute angle with board and in line with the direction of writing

* Use a blackboard/white board when appropriate to minimize paper waste

Most common uses:

* Welcome a group to a session or course

* Introduce the instructional objectives for a session

* List participant ideas, suggestions, questions, or issues generated as a result of a discussion/group report

* Summarize key points covered in the session

* List review questions, assignments, references, previous points, or important times or dates

Remember, participants only remember a small portion of what they see. Make sure that what they see on a board or chart has maximum impact!

Handouts

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

When to use handouts:

* <u>Prior to a session</u>--an excellent way to arouse interest in a topic, if used properly!

    As pre-work. Prior to the course, the participants are given a specific task which has to be accomplished as a basis for work in class. This may be the completion of a checklist, questionnaire, or portion of an exercise. It may involve the reading of an article or a case which will be discussed in class

As thought stimulators. A list of questions can be used in advance of a session to generate thought on a topic. The questions should pertain to the lecture, a case, or an exercise

As background material. This approach can be particularly helpful when an unfamiliar topic is being introduced

* During the session--This can be effective, provided the participants actually work with and discuss the handout. If the materials are merely given out for the notebook, little is gained, and they serve to distract the participants and instructor) through shuffling and unplanned reading

  A simple but useful handout is an outline of key points to be covered. Another approach is to provide the participants with a handouts which allow key points to be filled in as the lesson proceeds

* Post session--These are often summary notes, additional reading material, and handouts which do not have direct relevance to the discussion you have just completed.

Handouts always should be:

* Neat, legible, and to the point

* Recent and timely

* Introduced or explained, so that relevance and expectation of use are clear

* Copied double sided and limited to only those absolutely necessary--conserve natural resources and personal energy carrying them to a session!

Instruments

An instrument is used to bring training alive. Instruments appear in many forms: checklists, quizzes, rating sheets, surveys, opinionaires, questionnaires, or puzzles. Regardless of the form of the instrument, its purpose is to generate data for analysis, both in the classroom and as background for the instructor.

Instruments may be used in a number of ways:

* To introduce a topic
* To encourage self evaluation
* To give feedback to others
* To inventory attitudes
* To assess learning as a result of the training

Instruments may be developed by the trainer or purchased. What all instruments have in common is an emphasis on concrete data, giving and receiving feedback, self-appraisal, providing an opportunity to compare oneself to others.

Overheads

Overhead projectors afford an instructor the opportunity to use transparencies which are prepared prior to class or the option of writing on the transparency much as you would on a flip chart. Either way, attention to the following suggestions will assist you in developing complementary overheads for your presentation.

Tips:

* Focus on the main points of your lesson only. Headline format works effectively
* Appropriate illustrations or drawings increase the impact of the overhead
* Be sure that each participant, especially those in the remote parts of the classroom, can easily read the overhead. Talk to the participants, not the projector
* A mask or border can be placed around the transparencies to frame them and add a professional touch

* Adjust the placement of the overhead projector, the focus, and the placement of the transparency prior to starting your session. Always devote the time needed to be sure everything is in place, sequenced, and focused. Use a pencil or other pointer to identify key points, this will add to your professional polish as an instructor

Pitfalls:

* An excellent handout with typewriter size letters translates into an extremely poor overhead. No one can read it! The only time a transparency such as this is helpful is when it is used in conjunction with a handout. Locate sections on the transparency to assist participants in finding key points on their handout.

Slides

Slides can be a valuable addition to your presentation. Through their use you can "take" participants to various park sites, explore natural and cultural resources, visit museums, and review interpretive media all within the confines of a classroom setting. To make the most of your slides and the presentation they illustrate these suggestions will prove helpful.

Tips:

* Slides serve to illustrate your presentation. The focus remains on the material you are presenting. An outlined, conversational approach is far superior to reading a written script

* Phrases such as "this is" or "here you see" interrupt the flow of the presentation and can be easily avoided

* Select only quality slides which illustrate your point, are well composed, and in focus

* Obtain a slide tray in advance so you can do a "dry run" back in the office. Arrive early to test your equipment and presentation before the group arrives

* To place a slide correctly in a tray, look at the slide and hold it so everything looks like the real life scene. The sky is on the top, and all text can be read. Next turn the slide upside down and place it in the tray. The smooth (glossy) side of the slide, which has been facing you throughout, still faces you, and the opposite (emulsion) side is toward the screen

* During the presentation, talk to the participants rather than to the screen. Use an extension for the remote control so that you can move closer to the audience

* If available use dimmer lights during the presentation. Participants can take notes and the atmosphere is more conducive for eye contact, discussion, and questions

* Use greater voice volume to clearly project over the projector noise

Films

Although they do not provide as direct an experience as other training methods (role playing, games/simulations), films do provide a vicarious experience for learning concepts and skills.

Films can be used in a variety of ways:

* Introduce a topic

* Provide basic content. A relevant film may cover the subject matter of a given topic more efficiently than other methods

* To reinforce a topic

* To show a skill

* To serve as a case for discussion. All films should be accompanied by a discussion which addresses a learning objective

Tips:

* Study the Leader's Guide which often accompanies the film

* Avoid using films for non-training purposes such as providing entertainment to fill a gap in the program. However, in an emergency you may be able to use sound lesson plan structure to incorporate a relevant film as a stop-gap

* Try to relate sections in the film to on-the-job situations for maximum learning. If you fail to make the relevance clear, you have ignored an adult learning principle

* Carefully plan your introduction to a film. Explain its origin, why you are using it, elements the class should look for, which characters to observe, or techniques which will be critiqued afterward

* Plan your follow-up questions and discussion carefully to maximize the learning opportunity

Video

As a learning instrument, video is able to provide enhanced learning beyond the simple lecture by providing color, action, illustrations, and magnification of difficult to see processes for the students. With inexpensive equipment and special effects available to the instructor, video has become a common medium in the classroom. Taping of exercises, talks, and role plays are additional uses of this tool. Just as with films, videos must be incorporated into a lesson in a way to maximize learning opportunities.

Considerations:

* Half-inch VHS is the most practical and universally available format for classroom use

* Use only first or second generation tapes. VHS does not copy beyond second generation without significant loss of visual quality

* Provide monitors so that all can see and hear comfortably. One monitor in a large classroom is not enough

* Check all equipment thoroughly before your presentation. Last minute equipment adjustments lead to sweat and chaos

Technique:

* Build the video into the lesson plan and provide an introduction which identifies the importance of the tape and a conclusion (discussion, buzz groups, activity) which reinforces the learning opportunity and ties the session together

* If only certain parts of the video are relevant, identify these locations on the tape prior to the session. Introduce and discuss the areas separately, using the fast forward/pause features to locate segments. Do not bore your group with a 20 minute video which contains only 3 minutes of relevant material

Taping Sessions:

Technique:

* Videotape only sessions which MUST be preserved. Avoid the mistake of taping everything and creating dust-collecting rows of tapes on your shelves

* Always ask permission of the instructor well in advance if you wish to tape his/her session. An instructor should be given the opportunity to decline due to personal discomfort, nerves, or other considerations

* Tape the session as unobtrusively as possible. Do not detract from the presentation with the camera

* Participants should always be informed when they are being taped

* Make tapes of student activities available for review

Producing Your Own Video Training Tapes:

Videos of lectures lose interest quickly. However, inexpensive and effective tapes can be produced in-house by following these steps:

* Define the problem and audience. Is video the proper medium?

* Write program objectives

* Determine the content and approach, and consult with your supervisor

* Write a simple script and carefully research your information
* Expand the script and produce a storyboard to help you visualize each component of the production
* Shoot, provide audio and special effects (dubbing)
* Consider a local university or other facility where low-cost, professional editing and mixing can be obtained

Selected Readings

USING CLASSROOM MEDIA--General References:

American Telephone and Telegraph Company, ***The Trainer's Library - Techniques of Instructional Development,*** Addison-Wesley, 1987.

Birnbrauer, H., ed., ***The ASTD Handbook for Technical and Skills Training,*** American Society for Training and Development, 1985.

Eitington, J., ***The Winning Trainer,*** Gulf, 1984.

Kearsley, G., ***Training and Technology - A Handbook for HRD Professionals,*** Addison-Wesley, 1984.

Kemp, J., and Dayton, D., ***Planning and Producing Instructional Media,*** 5th ed., Harper & Row, 1985.

Pike, R., ***Creative Training Techniques Handbook,*** Lakewood Books, 1989.

Practical Management Associates, Inc., ***How to Teach Grown-ups,*** Practical Management Associates, Inc., 1980.

Reiser, R., and Gagne, R., ***Selecting Media for Instruction,*** Educational Technology, 1983.

Smith, B., and Delahaye, B., ***How To Be An Effective Trainer - Skills for Managers and New Trainers,*** Wiley, 1983.

Chalkboards, Whiteboards, Flip Charts and Overheads:

Bergeson, J., ***Media in Instruction and Management Manual,*** Central Michigan University, 1976.

Brown, J., and Davis, R., (eds.), ***A.V. Instructional Technology Manual*** 5th ed., McGraw-Hill, 1977.

Bullard, J., and Mether, C., ***Audio Visual Fundamentals,*** Wm. C. Brown, 1974.

Chisholm, M., and Ely, D., ***Instructional Design and the Media Specialist,*** American Library Association, 1979.

Craig, R., ***Training and Development Handbook: A Guide to Human Resource Development,*** 2nd ed., McGraw-Hill, 1976.

Goudket, M., ***An Audio Visual Primer,*** (Rev. ed.), Teachers College Press, 1974.

Wiman, R., ***Instructional Materials,*** Charles A. Jones, 1972.

Slides, Films, and Video:

Anderson, R., ***Selecting and Developing Media for Instruction,*** 2nd ed., Van Nostrand Reinhold, 1983.

Bensinger, C., ***The Home Video Handbook,*** Video-Info Publications, 1978.

Bensinger, C., ***The Video Guide,*** Video-Info Publications, 1977.

Kemp, J., ***Planning and Producing Audiovisual Materials,*** 5th ed., Harper & Row, 1985.

Millerson, B., ***Effective TV Production,*** Focal Press, 1976.

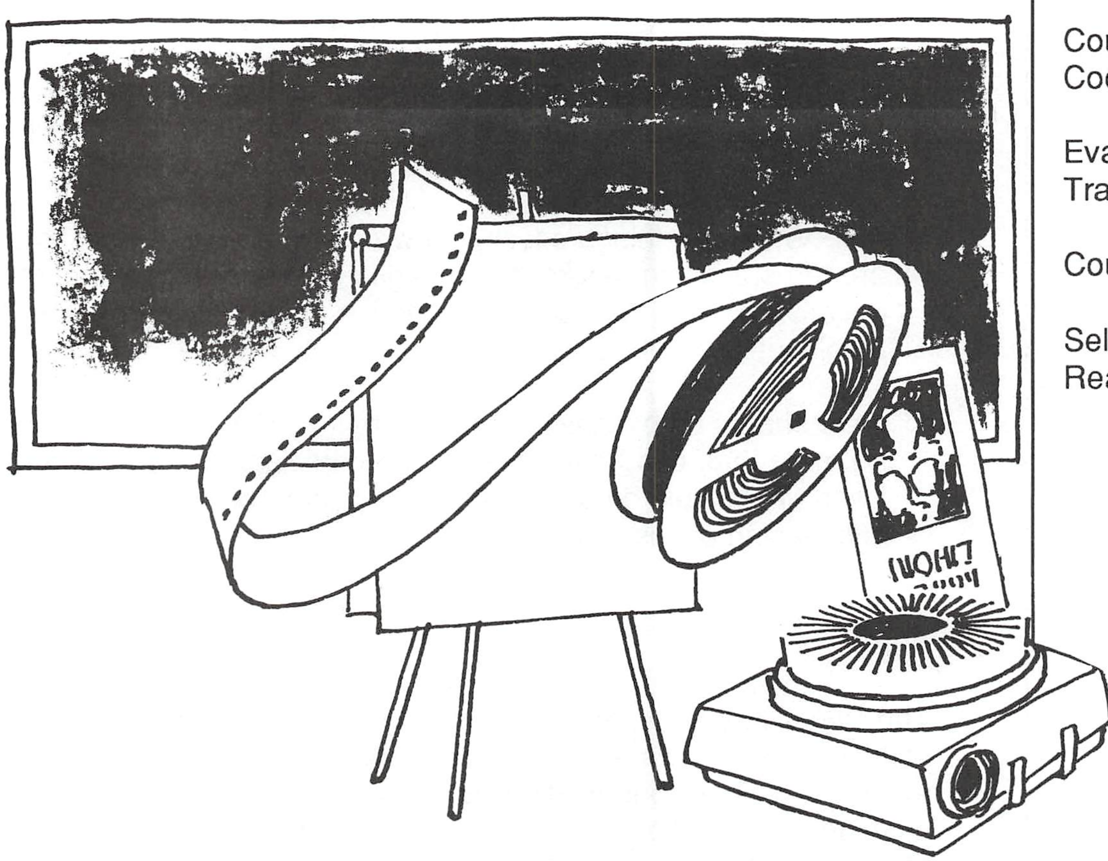
Minor, E., ***Handbook for Preparing Visual Media,*** 2nd ed., McGraw-Hill, 1978.

Utz, P., ***Video Users Guide,*** Prentice-Hall, 1980.

COURSE DEVELOPMENT

PART FOUR:

COURSE DEVELOPMENT AND COORDINATION



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Determining Training Needs

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 participants.

Instructor Responsibilities:

* Look at the job in the light of his/her own experience in doing it, AND review it in the way a learner looks at it. The job may appear simple to the instructor, but not to the learner

* In some jobs the order of the operations and steps are not fixed. The instructor must choose the order of instructing in these operations and steps (simpler steps first) and estimate the time needed

* Ask "Where do things usually go wrong on the job?" and "What are the stumbling blocks to the beginner?" More time should be devoted to these "hot spots" during the initial training of new employees

* Care should be exercised to insure that each session contains no more than can be learned by the participants at one time. Each unit should be successfully completed before the succeeding unit is presented

Servicewide Needs Assessment Process (SNAP)

The Servicewide Needs Assessment Process is a computerized software system that assesses the developmental needs of employees. The goal of SNAP is to assist the employee development function in improving the work performance of National Park Service employees.

SNAP does this by gathering information from a form called the Employee Development Plan (EDP). The EDP (10-224) is completed by the employee and supervisor during the annual performance appraisal period. As part of the appraisal process, employee and supervisor discuss specific areas in which performance can be improved. This discussion will provide the basic information needed to complete the EDP.

Using an EDP Catalog, the one-page form can be completed in approximately 30 minutes and is signed by employee, supervisor, and manager. This data is then entered into the SNAP software system either locally or by the Regional or Service Center Employee Development Office.

The information provided on the EDP will be combined with data from other employees and used by Employee Development Officers at the Regional and Washington Office levels as well as the staffs at the Employee Development Centers. The data will be used in the following ways:

* Determining the training courses to be offered at both the regional and servicewide levels

* Facilitating the assignment of employees to other positions in detail or acting capacities

* Promote inter-divisional and other forms of cross-training

* Provide a listing of potential instructors

* Assist course developers in curriculum design

* Assist in the selection of employees for developmental experiences (including training courses)

* Serve as a tool in career and upward mobility counseling

Completing the EDP assures that employee's individual needs are heard, and the overall direction of NPS training is focused in those areas most needed.

Course Design

Designing a training course is a rewarding experience!. Your audience may be new seasonal employees or experienced permanent employees. You may be designing a course for one day or for an entire week. The subject material may be new procedures or a return to the basics. Whatever the scenario, there are several questions to ask yourself so that the training achieves the desired results and is a positive experience.

Task Analysis (What does this course need to accomplish?)

* Review job descriptions, analyze tasks that must be performed, and review current management policies, directives, and operating procedures

* Brainstorm target audiences, ideas, and directions for the course with your supervisor, coworkers, employees, and program managers

* Prepare course objectives that identify what participants will be able to <u>do</u> when the course is completed

What topics/sessions should be included?

* Use the Task Analysis to determine the various sessions needed to achieve the course objectives. If available, employee needs assessments can provide valuable information on what should be included

* Meet with your key advisors and review the proposed sessions

* Look to see if a building block approach is appropriate

* If possible, include time to complete the product or perform the activity that is the focal point for the course. For example, a site bulletin workshop has sessions for writing and designing a site bulletin which is actually produced during the course. Curatorial Methods and Law Enforcement Training include practica for refining skills recently learned. Maintenance of Historic Structures includes a detailed building inspection combined with preparing a scheduled maintenance work plan. These participatory activities are the hallmark of effective, well designed training

What finishing touches will make this a memorable experience?

* Develop a course theme. Is there an underlying key idea that can link the sessions together and is relevant to the course? For example, a supervisory course may use the concept of empowerment as a theme. "Revealing the Iceberg" has been used for a course relating to cultural diversity. A little creativity can help identify the perfect thread to tie the whole course together
* Provide opportunities for informal social activities. A get-acquainted social the first evening or a class dinner the last night can really help develop group rapport
* Incorporate appropriate openers, icebreakers, and closers
* Be sure to include breaks and the adequate time for lunch! This is a necessity, not an option
* Be realistic with time frames for sessions. Coordinate closely with instructors to be sure the time is workable and there is an opportunity for questions
* Strive for quality time and if necessary, omit a topic or two rather than having too many sessions too quickly

Designing a course is a rewarding experience! Maximize the course potential by gaining ideas from others and always keeping in mind the participant needs and the overall objectives. The result will be training that benefits both the organization and the employee.

Pre- and Post-Course Assignments

When planning a training course, it is important to consider the needs of participants. Creature comforts such as lodging, transportation, and refreshments are just a few of the countless details we attend to. At the same time it is critical we keep in mind the needs of participants in relation to the subject matter and the course objectives.

We should always ask ourselves if any preparation prior to the course (pre-course assignments) or application following the course (post-course assignments) will facilitate the learning process and reinforce it. The following are points to consider when deciding whether to incorporate a pre- and/or post-course assignment:

Pre-Course Assignments:

* Ask yourself what preliminary work, if any, will best prepare participants to gain the most from their training experience

* If the course material is unfamiliar or new, a reading assignment may be helpful

* Most importantly, the assignment must be used during the course! If you ask participants to invest time in completing an assignment, then you must be committed to incorporating the assignment into the course

* If materials such as documents or books are to be brought by participants, they too must be used

* If a product is to be produced during the course, a rough draft of the project can be completed prior to the course

* If an individual presentation is part of the class, some pre-course preparation may be helpful

* If you want to know more about your participants, their backgrounds or skill levels, a pre-course questionnaire is excellent. Having participants mail it to you prior to the course will give you time to review the information. An autobiography is another way to help you learn more about your class; they are fun to post in the classroom

* If you are doing an activity that requires special foot gear or clothing, be sure participants come prepared. A field trip could be very unpleasant if participants do not come ready to brave the rain, cold, or heat

* Be sure both the employee and the supervisor are aware of the needed time a pre-course assignment will require. A supervisory statement of support may be required with the training nomination form

* If a pre-course assignment is irrelevant and does not aid the learning process, then do not incorporate one. Use only if appropriate

Post-Course Assignments:

* As with the pre-course assignments, employees and supervisors must be aware of the time involved in completing a post-course assignment. Supervisory support is critical and a statement with the training nomination is advised

* A post-course assignment must relate to the course material and to the employee's duties. Ideally it should be an assignment that the employee needs to do, is part of his/her duties, and benefits the operations

* If a project is started in class, it may be appropriate to complete it back in the work setting

* If the information from class needs to be shared with others who did not attend the training, making a presentation upon return to the work site can be a valuable exercise

* If skills need to be practiced, an assignment relating to performance of the skills or techniques is helpful

* Completing an action plan or a follow-up questionnaire is a good way to learn how the course benefitted an individual back in their work environment

* You should acknowledge post-course assignments you receive with a letter or similar feedback

* Overall, a post course assignment needs to be relevant and not perceived as busy work. It must benefit the employee in completing his/her assigned work and benefit the overall operations

Both pre- and post-course assignments can be helpful in certain situations. They may be just the right addition to enhance learning and application to the work setting. Evaluate their need carefully, however, and be sure the supervisory commitment and your commitment are there to make them a success.

Course Coordination

Congratulations! If you are reading this section you may have recently been selected to coordinate a training course. You are in for a rewarding experience. As those who have coordinated courses before know, you are also in for an extremely busy time.

Before we delve into the nitty-gritty of coordination, lets look at several overall observations in preparing for your role.

* Organizational skills are critical. The longer courses and off-site courses offer an opportunity to hone your organizational capabilities

* Attention to details is paramount. Never assume anything. For example, if you are renting a seven passenger van, does it indeed have seven seat belts? If an instructor is using slides, how many projectors are needed? What format is the video?

* You are the responsible person for everyone, both participants and instructors. If on a field trip, is everyone accounted for prior to all departures? If an instructor is running over his/her allotted time, guess who needs to end the session?

* You are responsible for communications and keeping everyone informed before, during, and after the course

* Your attitude is contagious and helps influence the tone of the course

* Be available, be helpful, follow through, and keep the schedule on time

* Add those special touches such as a class photo, a gag award, a quote, or a relevant story

* All course materials such as agendas, rosters, and objectives should be of good quality. They are a reflection of the course and things to come

* The bulk of the work and often the most critical part of coordinating a course is what occurs during the planning phases. Do it well and you will be on your way to a rewarding experience - both for you and the participants

With the above thoughts serving as a foundation you are ready to immerse yourself in the details of course coordination.

* Develop a time-line and complete all tasks on the leading edge. Once behind it is a challenge to recoup. The following time-line is an example of one used at the Mather Employee Development Center

COURSE PREPARATION TIME-LINE

Time Prior to Course	Task
16 weeks	Review previous course reports
14 weeks	Contact course advisors, conduct preliminary planning meetings
13 weeks	Secure course location, hotel, training room
12 weeks	Announce course with a training announcement
10 weeks	Meet with advisors to draft course and session objectives, agenda, pre- and/or post-course assignments (if appropriate), and identify instructors. Order special supplies and materials
8 weeks	Contact instructors, revise agenda
6 weeks	Confirm instructors, nominations due, select participants
5 weeks	Mail participant packages; includes: letter, draft agenda, course objectives, roster, and (if appropriate) pre- and post- course assignments
4 weeks	Mail instructor packages, finalize instructor travel, honorariums, and special logistical needs

2 weeks	Reconfirm instructors, determine instructor and participant lodging assignments, finalize instructor equipment needs
1 week	Finalize participant car-pools, copy handouts
3 days	Arrange classroom, assemble notebooks
1 day	Greet participants, prepare welcome social

* Prepare checklists to assist in organizing the following major facets of the course:

  a set of criteria for the course location

  criteria for hotel and training room (your administrative officer may be able to provide contracting guidelines you must consider)

  area services

  A-V equipment needs for each session

  supplies and materials

  information to provide to participants

  information to provide to instructors

  administrative details to discuss with the class the first day of the course

  announcements to make as the course progresses

* Make a survival kit containing all the assorted supplies (e.g. pens, pencils, paper clips, stapler, tape, three-hole punch, and other necessary items) This is vital for off-site courses, and a fishing tackle box works well

* Find a mentor who has coordinated courses before and would be happy to share ideas and provide a listening ear

* Keep a course book to record all arrangements and logistics

There is a tremendous sense of accomplishment after a well coordinated course which has met its objectives. The participants have new skills and knowledge, new friends, and hopefully renewed enthusiasm. As a coordinator you ensured all the many interrelated parts ran smoothly. Congratulations!

Evaluation of Training

Training is wasted unless the student 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. For our purpose, evaluation will be considered in four components:

The Reaction Evaluation

A reaction evaluation is an immediate response which indicates how well the participant liked a particular program. It is important to emphasize that it does <u>not</u> include a measurement of any learning that takes place. Listed below are guidelines for evaluating reaction.

* Determine what you want to find out

* Prepare a form to discover what you want to know, designing it so the reactions can be readily tabulated and quantified

* Obtain more candid reactions by making the forms anonymous

* Allow the participants to write additional comments not covered by those questions which were designed to be tabulated and quantified

Common Reaction Evaluation forms:

<u>Session Evaluations</u>

This is a short reaction questionnaire which will determine the accomplishment of the session objectives, indicate the level of relevancy of the session to each person's job, and reveal whether session organization and presentation were logical and clearly presented. A numeric ranking of each question is common, with ample space provided for comments as well.

Well planned pre-/post-course questionnaires can be developed which will measure behavioral response to training. Coupled with the reaction evaluation conducted at the course, an accurate assessment of the course effectiveness can be made.

Course Evaluations

The course evaluation is also a reaction form which addresses the overall effectiveness of the course. Questions on this form focus on the objectives of the program, the degree to which expectations were met, general performance of coordinators/instructors, and other relevant items such as facilities, materials, and logistics. On this form, additional questions may be asked to reveal strengths and weakness, personal benefits derived from the course, overall learning outcomes, and suggestions for improvements in future courses.

When reaction evaluations are analyzed and found to be favorable, the trainers can feel encouraged. Trainers should, however, recognize that this measurement does not identify what has been learned. Neither do they know whether the job behavior of the participants will change because of the training.

Even more remote is any indication of tangible on-the-job results which can be attributed to the training. Sample reaction forms are included at the end of this section.

The Learning Evaluation

A leaning evaluation method can measure exactly what concepts were mastered as a result of the training session. Can the participants accomplish the performance stated in the instructional objectives? Learning evaluations measure the degree of success in learning before the participants leave the training site. They do not, however, give any indication whether on-the-job behavior and productivity will be improved.

Guidelines to identify the amount of learning which takes place:

* Learning is most often measured in the form of a test at the end of the course or session. The test is performance based, and participants must complete questions or a task

* Participant learning should be measured and stated quantitatively

* For accuracy of measurement, a pre-course test should be administered

* If possible, consider a control group (those not receiving the training) to compare with the group that received the training

As these guidelines suggest, evaluation in terms of learning is more involved than "reaction" evaluations. In many instances, however, this type of testing is a requirement for certification, and must be conducted.

The Behavior Evaluation

Evaluation of training programs in terms of on-the-job behavior requires a different approach from the reaction and learning techniques described. A more scientific approach is needed, and many factors must be considered. Several guidelines should be followed in evaluating training in terms of behavioral changes:

* The behavior evaluation is built around on-the-job performance. A pre- and post-course evaluation will be necessary

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

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

* A control group, those not receiving the training, should be used whenever practical

A standard approach is to administer a pre- and post-course questionnaire for testing behavioral changes in employees.

These questionnaires require careful thought. Any self-assessment will require employees to look inward and evaluate themselves effectively. This can be accomplished through concise, well-thought out questions. Professional guidance in administering these instruments may be necessary.

The Results Evaluation

The outcome of most training programs should be evidenced in on-the-job results. Typical results are: reduction of costs, decreased turnover, absenteeism, or grievances, increase in quality and quantity of work, performance of new skills, and improved morale or cooperation. When practical, this measurement of performance improvement would be the preferred method of evaluation.

The results of certain kinds of training are relatively easy to evaluate. Examples include: typing, welding, number of grievances, improving safety records, or improving revolver marksmanship.

There are, however, so many complicating factors that it is extremely difficult and often impossible to measure the results of certain kinds of programs.

One of the difficulties in evaluating training is "separating the variables." How much of the improvement is due to training and how much to other factors? Another problem is measuring qualitative, yet intangible, improvements. For example, how can you measure the change in visitor attitudes once they have attended an interpretive program given by a recently trained interpreter?

Because of the ambiguities of results evaluation, it is recommended that trainers begin their evaluations by using the criteria described in the three other approaches.

No matter how an evaluation is designed or tabulated, it remains only an indicator. It should not be used as the sole measure of training effectiveness. Evaluation results should be combined with instructor observations, coordinator impressions, and the myriad of other input which can be obtained during and after training.

Course Reports

In many instances you will be called upon to submit to a reviewing official a report on the outcome of a training course you have conducted. Course reports provide documentation, explanations, insights, and other important information for the official record which would otherwise be lost. This information is vital to assuring that lessons learned are factored back into the planning process for future courses.

Course Reports should include:

* All pertinent administrative documents including announcement, agenda, objectives, roster, correspondence, and special class exercises or projects

* Summary narrative of the planning, development, and implementation of the training course. This should include problems, unexpected developments, particularly useful reactions of the trainers, and individual session critiques (based on participant evaluations and coordinator observations)

* Overall recommendations on curriculum, course delivery, instructors, media, logistics, and general information which would be helpful to subsequent course coordinators

Other considerations:

* The report should be submitted according to established deadlines

* Copies of the report should be sent to the overall coordinator, program manager, persons who have sponsored the training, and a copy retained for your files

* Demographic and professional make-up of the participant group should be summarized to allow analysis of how well each segment of the work force is being reached by the training

* Course costs should be analyzed for overall effectiveness and documentation of benefits gained from funds expended

A sample course report cover page is included at the end of this section.

Selected Readings

COURSE DEVELOPMENT AND COORDINATION: General References

American Telephone and Telegraph Company, ***The Trainer's Library - Techniques of Instructional Development,*** Addison-Wesley, 1987.

Practical Management Associates, Inc., ***How to Teach Grown-ups,*** Practical Management Associates, Inc., 1980.

Robinson, D., and Robinson, J., ***Training for Impact,*** Jossey-Bass, 1989.

Smith, B., and Delahaye, B., ***How To Be An Effective Trainer - Skills for Managers and New Trainers,*** Wiley, 1983.

Course Design:

Baird, L., Schneider, C., and Laird, D., eds., ***The Training and Development Source Book,*** Human Resource Development Press, 1983.

Bemis, S., Belenky, A., and Soder, D., ***Job Analysis,*** BNA Education Systems, 1983.

Blake, R., and Mouton, J., ***Consultation,*** 2nd ed., Addison Wesley, 1982.

Blank, W., ***Handbook for Developing Competency-Based Training Programs,*** Prentice-Hall, 1984.

Block, P., ***Flawless Consulting: A Guide to Getting Your Expertise Used,*** Learning Concepts, 1981.

Gael, S., ***Job Analysis: A Guide to Assessing Work Activities,*** Jossey-Bass, 1984.

Nadler, L., ***Designing a Training Program--The Critical Events Model,*** Addison-Wesley, 1982.

Course Coordination:

Watson, C., ***Management Development Through Training,*** Addison-Wesley, 1979.

Evaluation of Training:

Chabotar, K., and Lad, L., ***Evaluation Guidelines for Training Programs,*** Michigan State University, 1974.

Hambleton, R., and Eigner, D., eds., ***Evaluating Training Programs,*** American Society for Training and Development, 1975.

Hamblin, A., ***Evaluation and Control of Training,*** McGraw-Hill, 1974.

Goldstein, I., ***Training: Program Development and Evaluation,*** Brooks/Cole, 1974.

Kearsley, A., ***Costs, Benefits, and Productivity in Training Systems,*** Addison-Wesley, 1982.

Laird, D., ***Approaches to Training and Development,*** Addison-Wesley, 1978.

Mager, R., ***Measuring Instructional Intent,*** Fearon Press, 1975.

Phillips, J., ***Handbook of Training Evaluation and Measurement Methods,*** Gulf, 1983.

Tracey, W., ***Managing Training and Development Systems,*** Amacom, 1974.

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SESSION EVALUATION FORM

Session Number ____________

Be sure to mark the session number above to correspond with the session number on the agenda. For each question below, mark the number which best reflects your thoughts on the session.

Your feedback is appreciated; this information will be used to evaluate the overall effectiveness of this course. You need not sign this form.

	5 = Highest				1 = Lowest
1. How well did the session content meet the STATED objectives (see Objectives)?	5	4	3	2	1
2. Did the session content meet YOUR expectations? (If not, please comment below.)	5	4	3	2	1
3. Was the content presented in an organized manner?	5	4	3	2	1
4. How would you rate the instructor's overall effectiveness?	5	4	3	2	1
5. How applicable was this session to your job?	5	4	3	2	1

WRITTEN COMMENTS: (Please state strengths, weaknesses, suggestions for changes, etc.)

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COURSE EVALUATION FORM

Course Number ____________

For each question, mark the number which best reflects your thoughts on course effectiveness in the indicated area. The course number is available from your coordinator.

Your feedback is appreciated; this information will be used to evaluate the overall effectiveness of this course. You need not sign this form.

	5 = Highest				1 = Lowest
1. The overall course objectives were met.	5	4	3	2	1
2. I came to this course with high expectations.	5	4	3	2	1
3. I was highly satisfied with the overall course, considering my original expectations.	5	4	3	2	1
4. The course was well organized.	5	4	3	2	1
5. The instructors used were appropriate.	5	4	3	2	1
6. The course coordinator was effective.	5	4	3	2	1
7. The facilities were suitable.	5	4	3	2	1
8. What I learned in this course will help me immediately in my job when I return.	5	4	3	2	1
9. What I learned in this course will be put to use in the next six months.	5	4	3	2	1
10. This course was worth the time spent away from the job.	5	4	3	2	1

Information provided in questions 11 to 16 is for statistical purposes only.

11. I am: (M)ale (F)emale

12. I would consider myself to be: (B)lack (W)hite (N)American Indian (H)ispanic/Spanish (A)sian/Pacific Islander (O) Other: ________

13. I am legally disabled. (Please list disability. ____________________) (Y)es (N)o

14. I have served in the NPS _____ years: ( )N/A ( ) 0-5 ( )6-10 ( )11-20 ( ) 20+

15. Including this training, I have attended _______ Mather courses: (5+) (4) (3) (2) (1)

16. The region/center I am duty stationed in is: (AK) (NA) (RM) (WR) (HFC) (MA) (NC) (SE) (DSC) (WO) (MW) (PN) (SW)

Please turn page over for additional comments.

PLEASE LIST THE STRONG POINTS
OF THE COURSE:

WHAT WERE THE WEAK POINTS OF THE COURSE AND HOW WOULD YOU
CHANGE THEM FOR THE BETTER?

WHAT CAN YOU DO NOW THAT YOU COULDN'T BEFORE TAKING THIS COURSE?

OTHER COMMENTS:

(Course Title)

(Sponsoring Office)

(Date)

COURSE REPORT

Part I: Overview

A. Planning
B. Course Conduct
C. Summary of Participant Evaluations
D. Coordinator Comments and Recommendations
E. EO Information

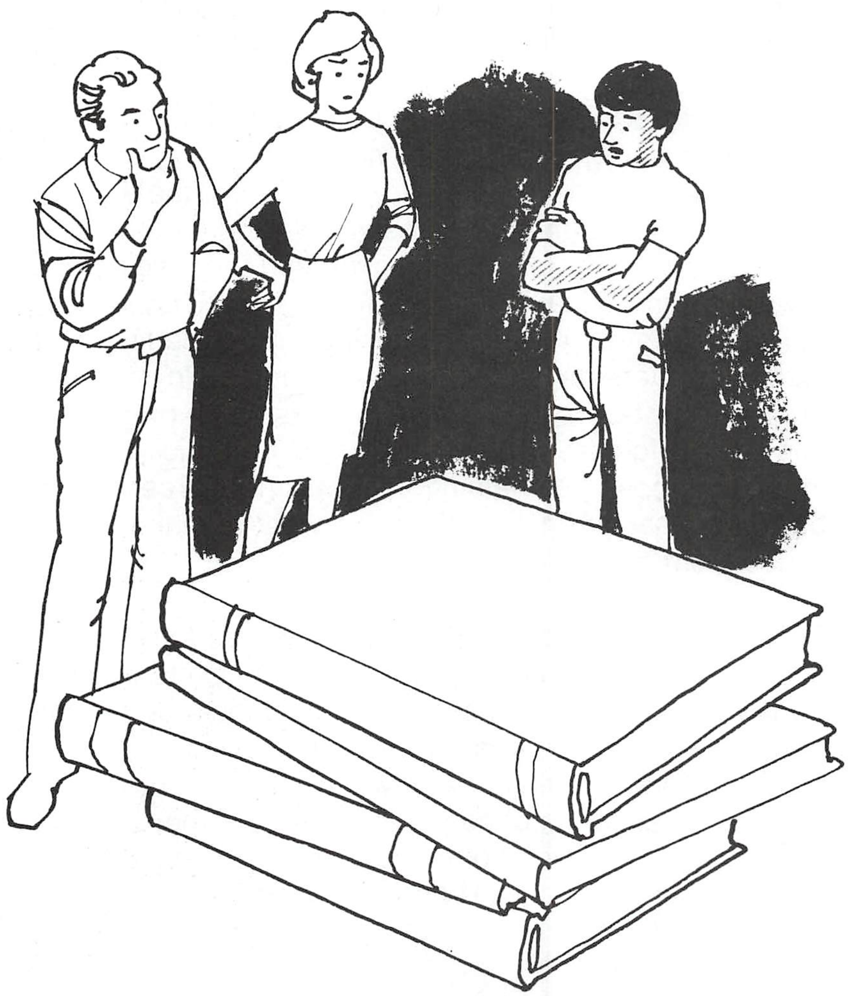
Part II: Attachments

A. Course Announcement
B. Participant Package
C. Class Roster
D. Agenda and Related Documents
E. Participant Evaluations
F. Class Photo and Key
G. Other Pertinent Information

Prepared	Date	Approved	Date

APPENDICES

APPENDICES



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The Supervisor as Trainer

[Note: One of the important roles of a supervisor is providing developmental opportunities for her/his employees. The following text is taken from the Fourth Edition of TRAINING METHODS, and is designed to be used by supervisors on the job to assist in employee development. Because it is intended for use outside the classroom, it is included in the Appendices in its original form.]

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 review 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 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 his/her career interests. This basic information enables the supervisor to plan the discussions for subsequent meetings.

On later occasions the supervisor may wish to review the job performance of the employee. 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, yet offer some assurance of sound personal development. If the level of job performance is in need of improvement, the supervisor and the employee together should arrive at a plan wherein the employee will receive the training or be given job experience that will relieve the shortcoming. The employee, thus being given a voice in 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 may be effective: committee assignments, job rotation, work details, understudy assignments. Correspondence courses or other scholastic training may be recommended. He may also decide to plan with subordinate supervisors for future development of the employee.

Candid performance review does much for both supervisor and subordinate. The supervisor feels secure in the knowledge that he/she is fulfilling the obligations of 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.

Cross Training

Cross-training is a planned program of exposing an employee to job experience which is not normally received in a 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.

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 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 will do much to foster better cooperation within the organization besides improving the development of the individual employee.

Supervisors must realize, however, that this technique requires interested supervision. The employees 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 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 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.

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 training opportunities. 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 that this assignment would afford.

Special assignments may consist of compiling periodic reports, conducting investigations, making analyses of situations, devising procedures, conducting surveys of 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 he/she 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 and Detail 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 the employee 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. The individual employees gains valuable job experience, which may also serve him/her well in later work. The supervisor benefits because such placements offer an opportunity to study how well employee performs 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/she will not want to assign just any employee to the acting supervisory role and then forget that employee 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 the work might be affected adversely. The supervisor must keep in constant contact with such an employee and through coaching, keep him/her on the right track from day to day. Before such an assignment is made the supervisor will do well to have a talk with the employee and point out (1) why he/she has been chosen for the temporary detail, (2) how he/she can expect to develop 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 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. The decision should not be based 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. There may be some subordinates who have in other ways demonstrated their ability for supervision, or have in other ways demonstrated their ability for supervision, or who 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 assignments lies principally in the understanding between the supervisor and the employees 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 may be expected that the employees will gain experience which should do much to develop them as individuals. They may, for the first time, be responsible for directing the work of other permanent and seasonal employees. They may be in a position to positively influence public and employee relations. They may have to resolve certain human relations or job situations which they would not otherwise encounter. They may be exposed to new phases of the job, either administrative or technical, which will do much to develop their 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 may be 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/her 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 experiences 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.

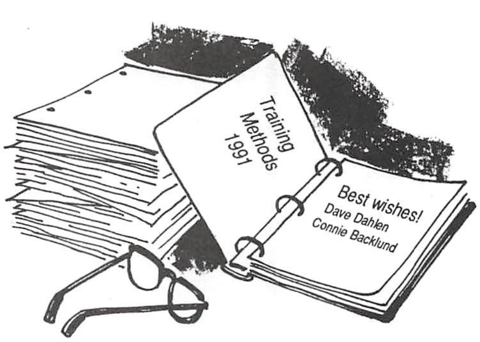
To this extent understudy training may be achieved through a number of the individual methods discussed previously. It may be looked upon not so much as a method of individual training as a situation for individual training. From either viewpoint, however, it is included in this manual to acquaint supervisors 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.


Training
Methods
1991
Best wishes!
Dave Dahlen
Connie Backlund