



IRC International Water
and Sanitation Centre

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TRAINING SKILLS FOR SUPERVISORS

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IRC International Water and Sanitation Centre

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TRAINING SKILLS FOR SUPERVISORS

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and Sanitation Centre**

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Publisher's note

This training manual was first produced in 1985. Since then, it has been used and tested in Malawi, Egypt, Ethiopia, Kenya, Sri Lanka, and Thailand. In most of these countries, the project staff had the manual translated (in whole, or in part) for use in their training programmes.

Feedback on content and presentation were entirely positive and enthusiastic. It was said that this manual is straightforward and easy to comprehend. It presents technical training techniques in a manageable and realistic manner. Training advisors engaged in training exercises have been impressed how well the material can be grasped and how easy the methodology can be used.

In view of these positive reactions on the draft manual and training material like this, IRC has decided to publish this manual in its recently established training series.

This is the same version as the 1985 one, except for the addition of page numbers throughout the manual. The page numbering per chapter on the top of the pages has been kept to remain consistent with the translators glossary in Annex I.

We anticipate a wider use of this manual, adapted to other languages and we welcome feedback on the use of this training manual.

The Hague, 1987

PREFACE

NOTE: For convenience and simplicity, the masculine pronouns (he, his) are used throughout these Guidelines. The masculine pronoun is not intended to exclude females in any way

The aim of this manual is to give the supervisor who is an inexperienced trainer the attitudes, knowledge and skills he needs in order to effectively improve the performance of his subordinates. Techniques that are useful for technical training are stressed.

Coverage of all aspects of training is not the goal - helping supervisors is. Consequently, each chapter - and every paragraph - have received careful scrutiny and editing. Each has met our primary criteria that it be immediately useful to the supervisor.

Usability is not, in our definition, merely a matter of whether a document can be used, but the extent to which the language and the approach encourages and helps the reader to use it. With this criteria in mind, we have first had to develop a clear idea of our reader. We have had to envision a foreman/supervisor/trainer in rural or urban fringe settings. Our suppositions about him are many. Not all will be true for all readers, but making these assumptions has given us the guidance we need in order to tailor the book to the needs of the supervisor/trainer in the composite form in which he appears to us.

ASSUMPTION ABOUT THE USER OF THIS MANUAL

- This supervisor/trainer is generally an inexperienced and perhaps reluctant trainer. He may not, initially, even be aware of performance problems; he may not be aware that it is possible to improve performance; and he may not be aware that he himself has any responsibility or ability to bring about those improvements.

- We also assume that the reader's past conditioning has led him to believe that training is something that happens in a classroom - usually in a large institute. On-the-job training is, in his experience, simply on-the-job "watching"

- Another assumption about the user is that he is a busy person and may feel that both the learning about training and the giving of training are impositions on his already busy schedule.

- Furthermore, when this reader is actually given training duties, he is likely to find that his trainees have not been selected on the basis of their pre-requisite knowledge or skills. They will generally be those workers who have been assigned to the job - qualified or not.

- Another assumption, based on both discussions and observations, is that most training done by this supervisor/trainer will deal with motor skills which can effectively be taught on the job. We recognize that a supervisor spends a large percentage of his time on the job and will, therefore, undoubtedly have far more opportunity to do on-the-job training than classroom training.

APPROACH OF THE MANUAL

Taking all the above assumptions into consideration, we have presented training in a scaled-down manner that we feel is perfectly adequate for training in the readers' situations. We have re-examined the needs of our composite supervisor/trainer and discovered the essential skills that he needs in order to give effective training. We have developed an approach which differs considerably from that found in traditional texts.

With our primary goal of producing a totally usable manual, the decision to reject conventional wisdom and re-examine the real needs of our readers was an easy one to make. Although the traditional detailed steps in the process of training preparation may be valuable for professional trainers who teach formal courses we have found that requiring an inexperienced trainer to go through such mental gymnastics is more detrimental to his motivation than it is helpful to his subsequent training efforts. Writing job descriptions, entry conditions and lists of learning objectives is clearly a very big job and not one which every supervisor/trainer can be expected to carry out for all of his teaching. A formally-trained trainer or instructional technologist may benefit greatly from such tasks, but the new supervisory/trainer is likely only to be discouraged by the time and paper such tasks may consume.

Instructional technologists guided by conventional wisdom may be surprised at what we have omitted. We have, for example, devoted very little time to the task of writing performance objectives. Rather, the steps of the task analysis become the performance objectives - a simplification which is easy, logical and usable.

The task analysis itself is greatly simplified. Our reader is not asked to wrestle with difficult and confusing concepts of cognitive strategies, intellectual discriminations and attitude learning. We believe that these topics which are commonly included in Training for Trainers Manuals are not only unnecessary, but self-defeating. The tradition-oriented professional trainer may also be surprised (and we hope pleased) to find that writing Key Points is not required for our version of the Task Analysis. Such information is incorporated later in the Lesson Plan, which seems to us, a more suitable place for it.

What we do believe is necessary - in fact, is crucial - is that the supervisor/trainer acquire the habit of thinking in an analytical way. He must become used to seeing training as performance-oriented instruction. It is such habits of thought that are emphasized in this book. They are reinforced on every page.

The reader is actually required to prepare a training event and is, in so doing, practicing these habits of thinking that are mandatory for his future as a successful performance-oriented trainer.

The preparation of a training event is another of the primary aims of this Manual. Rather than just telling the novice trainer to "get out there and train", our approach is to take him step-by-step through the process of preparing a training event. Using worksheets with clear instructions, the reader analyzes a problem, determines a training need, examines the steps of the task, prepares for classroom or on-the-job training, plans the logistic arrangements and plans the required follow-up. To this Manual is attached a job aid showing the supervisor how to perform each step of the training task. The job aid is meant to be consulted everytime a training event is contemplated.

LANGUAGE OF THE MANUAL.

Our primary goal of usability should be re-emphasized. To repeat, usability is not merely a matter of whether a document can be used, but the extent to which the language and the approach encourages and helps the reader to use it. With this aim as our guide, we have paid specific attention to making the text readable and translatable.

There is no jargon in this book. All technical terms are explained. All concepts are illustrated with examples or short case stories taken from the water and sanitation sector. Such examples enable the reader to "hold on to" concepts and thus make comprehension much easier.

Readability and translatability are, however, more than just a matter of a liberal use of examples and easily understood vocabulary. Length of sentences, verb tenses and sequencing and reinforcement of ideas are important aspects. Attention has been paid to all these factors with the result that the manuscript scores high on a number of different readability indices.

The material is written in a way that acknowledges and respects the problems of comprehension that are normal and expected for readers whose first language may not be English.

TRANSLATOR'S GLOSSARY

Annex 1, the Translator's Glossary, ensures that the usability of this manual is not confined to readers of English. The glossary carefully explains meanings of 182 words or phrases in such a way that accurate translations can easily be made. Words are arranged by page numbers in the sequence in which they appear in the text. The words explained in the glossary are indicated with an * in the text.

CONCLUSION

The Manual is not intended as decoration for a book shelf. It is meant to be used by the many supervisors and foremen who are helping to make clean and ample water a reality in communities throughout the world. It is our twofold hope that this manual will help make their job easier and will also make training a regular and systematic function of their water agencies.

We welcome constructive comments regarding the improvement of Training Skills For Supervisors.

Donna R. Flanagan, March 1985

SPECIAL NOTE TO MANAGERS

WHO IS THIS MANUAL FOR?

TRAINING SKILLS FOR SUPERVISORS is intended for the inexperienced trainer who may lack both the confidence and the incentive to do training but who has, nevertheless, been given some responsibility for training. Such people may be supervisors, foremen, training officers - anyone in your organization who is responsible for the work of others. These people may not, at first, want to accept their responsibility for training. They may outwardly proclaim that they have not time for training and, inwardly fear that they don't know how to train. This book will help you to convince them of both their responsibility and their ability.

It is suggested that all employees with supervisory duties be made to understand their training responsibilities. However, if only key supervisors are to be your agency-wide focus on training, you will want to select those people with the following characteristics:

1. THEY HAVE THE ABILITY TO COMMUNICATE WELL.
2. THEY ARE WILLING TO SHARE THEIR KNOWLEDGE.
3. THEY LIKE BEING AROUND PEOPLE AND ARE ENTHUSIASTIC ABOUT THEIR WORK.
4. THEY ARE KNOWLEDGEABLE ABOUT THEIR WORK.

WHAT KIND OF TRAINING WILL RESULT FROM THIS MANUAL?

Training in the water supply and sanitation sector is often a formal course which takes place in a training centre in an urban area. It is aimed at teaching selected technical and engineering skills for the professional and sub-professional groups in the urban areas. Such training, however, does not address much of the skill development necessary for the rural worker. Experience has shown, for example, that very often the national training institutes do not provide trained personnel for the installation, operation, maintenance and repair of rural and urban fringe water systems.

If your organization is involved in rural (or urban fringe) water supply, you probably feel that you can use all the training help that you can get. This Manual is designed to give you that help. Your supervisory staff can learn to give classroom or on-the-job training in all those skills at which they excel. Such training might include plumbing, masonry, carpentry, pump mechanics, engine mechanics, stores keeping, accounting, surveying, well drilling, pump installation, community hygiene, etc.

The training advocated in this book is not formal or lengthy academic courses with prepared and written materials. Rather, it is a short-term classroom event or on-the-job coaching. It is practical and performance-oriented. More often than not, written materials will not be available. Therefore, careful preparation, clear communication and conscientious follow-up are key skills that the novice trainer must develop.

Training Skills For Supervisors aims to help him develop those skills.

THE APPROACH OF THE MANUAL

The goal in producing this manual was to present the essential points of systematic instruction in a language and at a level which makes easy the full understanding of the new trainer.

In order to do this, we have relied on examples rather than theoretical explanations. We have given step-by-step instructions. We have emphasized critical elements in the training process believing that they are absolutely essential to successful training. We have, by the same token, neglected other training elements believing that to give too much information may actually discourage rather than inspire the novice trainer.

Our attempt has been to show the process of training in simple terms. Stripped of jargon, TRAINING SHOULD BE SEEN AS A NORMAL SUPERVISORY ACTIVITY - WITHIN THE CAPABILITIES OF ALL WHO SUPERVISE WORKERS.

A MANAGER'S ROLE IN TRAINING

The briefness of the discussion in the Manual may not automatically make it easier for the reader to comprehend the material. The briefness may even prove to be a barrier unless supplemented by YOUR interest. It is strongly suggested, therefore, that before you pass this book on to your supervisors, you yourself become familiar with its contents. Later, you should lead several discussion sessions during which the supervisors who are to do training can question and discuss the content of the book.

Such a discussion of training matters with novice trainers will help ensure that their understanding of systematic training is correct. Your support may also give them the confidence and motivation to attempt training.

An even more productive way to prepare your supervisor/trainers is to organise a Training for Trainers Course. Learning is usually more effective when learners can meet to discuss what they are learning. Since the improvement of teaching skills (which is the aim of this book) requires the type of interaction and feedback which can be gained best in a group, this Manual can also be effectively used as a resource for workshops.

SPECIAL NOTE

To further motivate trainers and thus to improve training and performance throughout your organization, management should consider ways to recognize and/or remunerate supervisors and foremen who have acted as trainers. If, for example, a supervisor is expected to up-grade the skills of 20 plumbers, perhaps he should also be given some recognition of his successful completion of this duty - extra pay, a certificate, a promotion, or a more prestigious job title, time-off, more office space etc.

PLEASE DO PASS THIS MANUAL ON TO PEOPLE IN YOUR ORGANIZATION WITH TRAINING AND SUPERVISORY DUTIES. GIVE THEM YOUR INTEREST AND SUPPORT!

WHAT IS TRAINING?

I. OVERVIEW*

Do the workers who you supervise*do a good job*?
Could they do a better job ?
Should they work faster ?
Should they make fewer mistakes*?
Should they have fewer accidents*?
Should they use materials*more carefully ?
Should there be fewer equipment breakdowns*?
Should there be fewer call-backs*to re-do a job ?

If you answer YES to any of these questions, your workers may need some training. Because you are their supervisor*,you are a good person to do the training. You are an expert*at the job and you know the workers well. In this book you will find guidelines to help you be a successful trainer*.

This a workbook. Besides reading it, you must do some work in it. As an exercise*, you will find a need for training and you will do all the preparation for training the workers. The book gives you step-by-step guidelines for successful training.

Right now, you may be thinking that you are a very busy person. You may wonder why you have been asked to do training. In this first chapter you will learn that:

1. Supervisors are often the very best trainers.
2. Training your workers will make your supervisory job easier.
3. Doing effective training*is not difficult if you follow the steps for systematic training*.

First, you must understand the meaning of some words used in Chapter One.

II: USEFUL WORDS

TRAINING

Some people think of training as the education a worker has before he begins to work. Other people think of training as a reward*that lucky workers receive after they have started working. Training is often thought of as something that is necessary for a job promotion*. In this book, however, we think of training in a different way.

TRAINING MEANS TEACHING A WORKER TO DO HIS JOB.
(It does not mean teaching a worker to pass an exam!)

TRAINING MEANS TEACHING THOSE SKILLS AND KNOWLEDGE*THAT THE WORKER NEEDS TO DO HIS JOB.

TRAINER

Many supervisors know that training workers is part of their jobs. They tell workers what to do and they also help and show workers how to do the job. Telling and showing workers how to do their work is training.

A supervisor is a trainer. He is a part-time* trainer. A training officer*may have full-time training responsibilities*. Both, however, are trainers.

A TRAINER IS A PERSON WHO SUPERVISES WORKERS AND HELPS THEM LEARN TO DO THEIR JOB WELL.

A TRAINER IS A PERSON WHO SPENDS SOME OF HIS TIME HELPING OTHERS TO DO THEIR JOBS BETTER.

A TRAINER IS A PERSON WHO CAN COMMUNICATE* INSTRUCTION CLEARLY.

A TRAINER IS A PERSON WHO MAKES IT POSSIBLE FOR WORKERS TO LEARN*AND PRACTICE SKILLS OF THEIR JOBS.

TRAINING EVENT

In the past, people often believed that training must be very formal and very long. Today we know that is not true. Training can be short and informal.

Some training uses written materials. Some training does not. In this book we use the term TRAINING EVENT to describe training.

A TRAINING EVENT IS NOT NECESSARILY A LONG TRAINING COURSE IN A SCHOOL.

A TRAINING EVENT IS NOT NECESSARILY A FORMAL COURSE TAUGHT BY OUTSIDE INSTRUCTORS.

A TRAINING EVENT MAY HAPPEN ON-THE-JOB.

A TRAINING EVENT MAY LAST ONLY 5 MINUTES OR MAY LAST 5 MONTHS OR MORE. IT LASTS UNTIL THE TRAINEES CAN DO THE SKILL THAT IS BEING TAUGHT.

III: STORY

George is a busy and hard working supervisor in a rural area. He supervises men who install and maintain distribution pipes for community water supplies. The region that these men work in contains 30 wells and 6 gravity-flow systems. Eight thousand people are served.

Recently, George has been very busy. Leaky pipes need constant repairs and his men are working overtime. Yesterday George was told that he had to prepare a training programme for his workers. He is very angry. He does not want to do training, and he does not believe that training is his job.

This is what he told his manager:

"I am a plumber, not a teacher. If people need training, they should go to school."

"I do not have time to do training and the workers do not have time for training either. We are too busy doing our real work."

"I learned my job without any special training. My men can learn in the same way--- by keeping their eyes open and watching what goes on."

Question to Think About

1. Do you agree that George is too busy to do training?
2. Do you think people should go to school for training?
3. Do you think that people can learn their jobs by just watching someone else do it?
4. Do you think that a supervisor should also be a trainer?

What We Think

Compare your opinions* to the answers below.

1. It is true that George is very busy. BUT one of the reasons he is busy is because his workers must constantly repair leaky pipes. This means that those pipes were probably not installed correctly. Perhaps they are not being repaired correctly either. Consequently*, the men have to repeat the same job many times. IF the men were trained to install the pipes correctly, they would not have to go back to the same place many time to make repairs.

In our opinion, some good training will give George and his workers more time. They will be less busy than before.

2. We agree that some kinds of learning happen in schools. BUT we think that no school can train George's workers in the skills they need in order to do a better job of installatkon and maintenance of distribution pipes. We do not think that the men need book learning. We do think they need to know how to correctly install and maintain pipes. We think they can learn those skills on-the-job, not in a school.
3. It is possible for people to learn about the job by just watching someone else perform. However, if the person being watched is not a very good worker, or if he makes mistakes, the learner will learn to make the same mistakes. Learning by watching takes a very long time. Learning through good training can be done in a short time.
4. We think that one of the duties of a supervisor is to train his people. If the workers do a bad job, the supervisor is blamed*. Therefore, he should make sure that his workers to good work. He must train them, when necessary.

IV: IDEAS TO THINK ABOUT

1. Supervisors are often the very best trainers.

A good trainer must:

- (a) Know how to do the job that he is training workers to do.
- (b) Know what the workers can do and what they can't do.
- (c) Care about improving the skills of the workers.

Look at (a) above. You, as a supervisor or foreman, know how to do all the things that your workers must do. You know how to perform all the tasks of their jobs.

Look at (b) above. You spend time with the workers while they are working and you watch them when they are doing good work and when they are doing poorly. You can see when they are not following correct methods. You can watch new employees when they first come on the job. You can see what they know how to do and what they don't know how to do.

Look at (c) above. You are praised* for the good work of your workers and you are blamed for their poor work. When workers do poor work, your own job is made much more difficult. Thus, you should care about improving the skills of the workers.

Supervisors are often the very best trainers.

2. Training your workers can make your supervisory job much easier.

Do you spend much time

- reminding workers what to do?
- doing some the workers' jobs yourself because it is easier to do the job yourself than to let unskilled workers do it?
- sending workers out to re-do* a job that was done poorly the first time?
- explaining to your superior why the work is going slowly?
- repairing equipment or tools that have been broken through mis-use* or carelessness?

Many supervisors have these problems. But most are solvable through training.

If your workers have been well trained to do their jobs, they will need less supervision and less correction.

Whether you supervise accounting clerks or construction workers, they should be able to work efficiently and correctly without your constant advice. Good training is the answer.

Remember, training is needed when a worker:

- can't do the job (perhaps a worker recently assigned to the job);
- can't do the job well enough (perhaps a very slow worker);
- is doing the job incorrectly (perhaps a worker who breaks equipment because of mis-use).

If your workers are well trained, your supervisory job will be much easier.

3. Giving effective training is not difficult if you follow the steps for systematic training.

Many people think training is only classroom teaching. This is not true. Effective training can happen right at the work place. Training in the work place is NOT just watching an experienced worker. It is NOT just learning the job by yourself.

All training, whether a 5 months course in a classroom, or a half-day training event on the job, must follow certain rules in order to be successful. In this book you will learn the rules (the steps) to follow for Systematic Training.

Systematic Training means that:

- you carefully study the worker's job before planning the training;
- you learn exactly what the worker must be able to do on the job;
- you teach the worker to do all those things he needs for his job;
- after training you watch the newly trained worker on the job to see if his work is better;
- if the worker's work is not better, you study the job again; improve the training, and re-train the worker;

Giving effective training is not difficult if you follow the steps for systematic training.

Review Answers

1. What is training?

Training is teaching a worker to DO his job. It is not only giving a worker knowledge about the job.

2. How long does a training event last?

A training event lasts until the worker can do the tasks of the job correctly. Sometimes it may last only a few minutes. For some skills, the training period may be several months.

3. Should all training be done in a school?

No, training requires that the trainees DO the job. Therefore the trainees must usually practice the skill on the job with the equipment and tools that are available at the job site.

4. Can workers learn their jobs from just watching another worker? Is this good training.

Some workers might learn their jobs from watching another worker IF that worker is, himself, a good worker. This is usually NOT a good way to train, because it takes a long time and the learner/worker will not have many opportunities to practice the work.

5. Should supervisors do training? Why or why not?

Yes, supervisors should do training. They are often the best trainers because:

- (1) They know how to perform the job
- (2) They know their workers and what they can and can not do
- (3) They care about the improvement of the skills of the workers.

WILL TRAINING SOLVE THE PROBLEM?

I. OVERVIEW

A doctor does not give the same medicine to every patient*. First, he studies the patient and his illness in order to understand the problem. Then he prescribes* a medicine which will help that illness.

A trainer and the water agency manager are similar* to doctors. They see a work problem but they do not automatically* prescribe training as the cure (or the solution*) to the problem. Like the doctor, they first study the problem. Then they decide on the solution.

In this chapter, you will learn that:

1. Training is NOT the solution to all work problems.
2. There is a training need when work problems are caused by workers' lack* of skills or knowledge about the job.

First, you must understand the meaning of some words used in Chapter Two.

II: USEFUL WORDS

WORK
PROBLEM

If work is not being done carefully, or quickly or properly, there is a work problem. We call it a work problem because such problems occur when a job is not being done well.

A WORK PROBLEM IS THERE WHEN THE WORKER DOES NOT HAVE THE SKILLS OR KNOWLEDGE NECESSARY FOR THE JOB. (The worker does how to do the job well).

A WORK PROBLEM IS SOMETIMES CAUSED BY OUTSIDE THINGS (e.g. Spare parts or transport are not available.)

A WORK PROBLEM IS WHEN THE WORKER IS NOT MOTIVATED*. (The worker knows how to do a good job, but he doesn't want to).

TRAINING NEED

When a work problem is caused because the worker does not know how to do his job correctly, there is a training need.

Look for training needs when:

1. there are new employees.
2. employees have new job assignments.
3. employees are given new equipment or tools.
4. employees are not performing well (for example, there are accidents and/or breakdowns, materials are wasted, there is poor workmanship, etc.)

A TRAINING NEED EXISTS WHEN THE WORKER CAN NOT DO WHAT IS NECESSARY FOR THE JOB.

A TRAINING NEED EXISTS WHEN A PROBLEM CAN BE SOLVED BY GIVING TRAINING TO WORKERS.

III. STORY

In a rural area, the people are becoming angry and impatient because the standposts give no water. They must now get drinking water from their traditional sources, which are far away. Illness from water-borne disease is spreading throughout the region. Water ministry officials are also concerned about the many non-functioning diesel pumps. The Minister orders the Chief Engineer in the region to have the pumps working by Independence Day, in three months time.

If you were the Chief Engineer, and you wanted to improve the use of the diesel pumps, what would you do? Do you think any of the following solutions would be helpful? Can you suggest others?

1. Buy bigger diesel pumps.
2. Dismiss the mechanics who did not prevent the breakdowns.
3. Make all the mechanics take a written test about proper pump maintenance.
4. Make all the mechanics read a book about proper pump maintenance.
5. Reward some pump mechanics with a week holiday.

6. Send all pump mechanics to a training course.
7. Make a rule that pumps can only be run for 6 hours a day.
8. Study the breakdowns, looking for their causes and then decide on the best solution.
9. Others.....

Perhaps you don't know whether any of the first seven suggested solutions would be helpful or not. If you are not sure about them, you are right! Until you know what is causing the breakdowns, you can NOT decide on a solution.

If you thought that training (number 6 above) was the best solution, you must remember one thing. Training is only the correct solution if the problem is caused by a workers' lack of skills or knowledge. You do not yet know the cause of the diesel pump breakdowns. Therefore, suggestion number eight, "Study the breakdowns, looking for their causes and then decide on the best solution" is the best suggestion.

III. STORY (continued)

Think again about the rural area in the story. Here is what happened. The Chief Engineer and the supervisor of the pump mechanics carefully studied the problem. This study of the pump mechanics and the pump breakdowns showed that three of the pumps were not working because there was no diesel fuel. The solution in those cases, was not training for pump mechanics, but solving the fuel problem.

Two other pumps were not working because pump parts had been stolen. In these cases, training the pump mechanics would not have helped.

In other cases the pump did work, but it was not being used because the taste of the water was bad and the people had refused to drink it. In these cases there was a problem, but it was not a training problem.

Other pumps were not working because the pump attendants had tried to do major repairs and had broken the pump. It was not the pump attendants' job to do major repairs, but they were trying to help. They sent many messages to the pump mechanics in the region's Central Office, but the pump mechanics did not come. Even in this case, training is not the best solution. The pump attendants should do their own jobs and not do the job of a pump mechanic. A better system of communications between the pump attendants and the pump mechanics is a possible solution.

Some of the pump problems, however, were caused by the local pump attendants who did not know how to operate the pump correctly. In those cases, there was a need for training the pump attendants.

Other pumps did not work because the pump mechanics used the wrong type of oil in the pumps; or left loose nuts and bolts; or did not replace worn parts, etc. In these cases training was also needed.

Notice that the Chief Engineer and the Supervisor/Trainer studied each pump failure and each pump attendant and pump mechanic. They decided to give training only in those cases where a lack of skills or knowledge was the cause of the problem.

IV. IDEAS TO THINK ABOUT

1. Training is NOT the solution to all work problems.

You have read about a supervisor/trainer and a chief engineer who saw a problem (non-working diesel pumps) and looked at the problem in order to find the causes. They found different causes for the pump breakdowns. Each different cause needed a different solution.

When they saw that stolen parts were the cause of other problems, they did not prescribe training.

When they saw that poor communication between the local pump attendants and the centrally located pump mechanics was the problem, they did not prescribe training.

When they saw that poor water taste was the problem, they did not prescribe training.

BUT when they discovered that some pump breakdowns has been caused by the pump mechanics' lack of skills and knowledge about how to properly maintain the pumps, then they prescribed training. AND when they discovered that other pump breakdowns has been caused by the pump attendants' lack of skills and knowledge, they also prescribed training.

You can see that training is NOT the solution to all work problems

2. There is a training need when work problems are caused by a workers' lack of skills or knowledge about the job.

Training teaches someone to DO his job. You DO NOT give training as a reward*for good work; you DO NOT give training so the worker can pass an exam. You give training when someone needs to learn or improve job skills.

How do you know when there is a training need?

- First, you see a work problem - something is not being done as quickly, or carefully or as well as it should be.
- Second, you study the work problem. You try to find the cause*of the problem.
- Third, if the problem is caused by workers who haven't the correct skills or knowledge to perform the job correctly, you know there is a training need.

Remember: Some problems are caused by outside things, e.g. lack of time or equipment to do the job. This kind of problem cannot be solved by training.

DO NOT GIVE TRAINING IF OUTSIDE THINGS ARE THE CAUSE OF THE PROBLEM.

Remember: Some problems are caused by a worker's feelings. For example, he may be too lazy or too tired or too angry to do the job well. This problem cannot be solved by training.

DO NOT GIVE TRAINING IF THE WORKER'S FEELINGS ARE THE CAUSE OF THE PROBLEM.

Remember: Some problems are caused by worker's lack of skills or knowledge. In this case, there is a training need.

DO GIVE TRAINING IF LACK OF SKILLS OR KNOWLEDGE IS THE CAUSE OF THE PROBLEM.

There is training need when work problems are caused by a worker's lack of skills or knowledge about the job.

Review Answers1. What is a work problem?

A work problem is a problem that exists when a job is not being done well.

2. When is there a training need?

There is a training need when the reason that a worker is not doing his job correctly is that he does not have the skills or knowledge to do the job. If a worker is not doing good work because he does not know how to do the job well, there is a training need.

3. Is training the solution to all work problems? Why or why not?

Training is not the solution to all work problems. Training is the solution only when the worker can not do the job well because he lacks the skills or knowledge to do the job.

VI. NOW DO THIS

In order to do the exercises in this book, you must find a work problem that is caused by the workers' lack of skills or knowledge.

THE PROBLEM THAT YOU CHOOSE NOW WILL BE THE SUBJECT OF THE TRAINING EVENT THAT YOU WILL PREPARE AS YOU STUDY THIS BOOK.

Follow the instructions* to find a training need.

- INSTRUCTIONS:
1. Use the Finding Out What Is Wrong form* on page TWO/9.
 2. Tell about a work problem. Write it in the space at the top of the form. Look at the following examples of work problems.
 - There are too many leaks in new distribution pipes; or
 - New equipment is not being used; or
 - One masonry crew* can complete only well in the time another crew can complete two; or
 - Three out of four vehicles are not working; or

INSTRUCTIONS (continued)

- Three out of five diesel pumps are not working; or
- Pump maintenance crews don't know when and how to perform preventive maintenance; or
- New employees don't know how to clean and store tools; etc.

WARNING! Describe a problem that is a **REAL** PROBLEM for YOUR WORKERS or YOUR ORGANIZATION.

3. Read the 6 questions on the Finding Out What Is Wrong form.

They will help you decide if the problem has a training solution.

Answer the questions with YES or NO.

IF YOU ANSWER YES TO QUESTIONS 5 and/or 6, THERE IS A TRAINING NEED.

4. Write the training need in the space at the bottom of the form. Examples are:

- Workers need to learn how to backfill* correctly when laying pipes; or
- Workers need more practice using surveying equipment; or
- Workers need to learn how to promote* community participation, etc.

WARNING! The training need must agree with the work problem which you describe at the top of the Finding Out What Is Wrong form.

Finding Out What is Wrong

TELL ABOUT THE PROBLEM _____

YES OR NO

- _____ 1. Is the problem caused by a lack of equipment or materials?
- _____ 2. Is the problem caused because no one tells the workers what to do?
- _____ 3. Is the problem caused because workers do not receive encouragement or praise for doing a good job?
- _____ 4. Could the worker do the job correctly if he really wanted to?
- _____ 5. Is the problem caused because the worker does not know how to do all the parts of his job?
- _____ 6. Is the problem caused because, although the worker knows how to do his job, he needs more practice in order to do it well?

IF YOU ANSWERED YES TO QUESTIONS 5 and/or 6, TRAINING CAN SOLVE THE PROBLEM. THERE IS A TRAINING NEED.

WRITE THE TRAINING NEED HERE

More Instructions

If you answer NO to questions 5 and/or 6, training will not solve the work problem.

Find another work problem and answer the above six questions.

Continue thinking about problems until you find one that can be solved by training - that is, one in which the answers to questions 5 and/or 6 are YES.

WHAT DO WE TEACH?

I. OVERVIEW

In Chapter Two you looked at a problem and found a training need. You know that your supervisory job will be easier and the workers' performance better if they have some training. But, you may now know what skills and knowledge should be taught.

Good training is aimed at only those skills and knowledge that a worker needs in order to do his job. A Task Analysis will tell you what to teach.

You will teach the workers to do all the steps of the task. The steps will be your guide for what to teach and also your guide for testing the success or failure of the training.

You must do a Task Analysis in order to plan your training event.

In this chapter you will learn that:

1. A Task Analysis tells the supervisor/trainer what to teach the workers.
2. A Task Analysis shows the difference between what a worker should do and what he is really doing.
3. Training should be based on the tasks that the worker must do.
4. The steps of a task can be used as performance objectives.
5. Performance objectives are guides for training and testing.

First, you must understand the meaning of these words used in Chapter 3.

II. USEFUL WORDS

TASK

A task is a duty. In most jobs, the worker has several tasks or duties. For example 4 tasks of a village caretaker's job are:

- Do preventive maintenance on the handpump
- Keep the area around the handpump clean and free of trash.
- Keep excess water away from pump area.
- Report breakdowns to the proper authority.

A TASK IS AN IMPORTANT PART OF THE WORKER'S JOB. IT IS A DUTY.

STEP

Steps are the actions a worker must perform in order to complete a task. For example, one of the tasks of the village caretaker (see above) is to do preventive maintenance on hand-pumps. There are 4 steps in this task:

- Lubricate pump rod
- Lubricate hinge pins
- Check plunger leathers
- Check and clean concrete slab

A village caretaker must be able to do all these steps if he is to do the task of preventive maintenance.

A STEP IS A NECESSARY PART OF A TASK.

TASK ANALYSIS

To analyze something is to study it. To do a Task Analysis, therefore, is to study a task.

To analyze or study a task, you look at all of the steps of the task. You study the steps and write down what must be done.

Think about these explanations of Task Analysis.

A TASK ANALYSIS IS A CAREFUL STUDY OF A TASK (a duty) IN ORDER TO FIND ALL THE ACTIONS THAT ARE NECESSARY TO DO IT.

A TASK ANALYSIS IS A DESCRIPTION OF THE STEPS OF A TASK. IT TELLS WHAT WORKERS MUST DO TO PERFORM THE TASK.

A TASK ANALYSIS REMINDS THE TRAINER OF ALL THE BIG AND LITTLE SKILLS THAT ARE NECESSARY TO DO EACH STEP OF THE TASK.

PERFORMANCE OBJECTIVE

Every training event must have objectives or goals. The large objective of training is that the worker learn to DO the task you are teaching. Smaller objectives aim at successful performance of each step of the task.

Objectives are about DOING or PERFORMING. They are called Performance Objectives.

A PERFORMANCE OBJECTIVE TELLS WHAT TRAINEES SHOULD BE ABLE TO DO AS A RESULT OF THE TRAINING EVENT.

II. STORY

Let's continue the story of the diesel pump breakdowns that we began in Chapter Two. Remember that the Chief Engineer and the supervisor/trainer found many causes for the pump breakdowns. One of the causes was poorly trained pump mechanics. Another cause was poorly trained pump attendants. The Chief Engineer decided to have a training course for the pump attendants in his region. He hired a trainer to come from the city.

The trainer arrived on the day before the training event. For two weeks he lectured about the theory of diesel engines and pumps. The pump attendants memorized the English names of all the moving pump parts. They looked at pictures of many different pumps. They went on field trips and looked at pumps. Then, the trainer went back to his home in the city.

Six months later, the Chief Engineer felt sad and angry because the diesel pumps were still breaking down. The pump attendants did not have the proper skills.

Once again, the Chief Engineer decided the pump attendants needed training. This time he asked the senior pump mechanic from his office to do the training. This man was a supervisor who knew the pump attendants and he also knew about the pumps they cared for.

The supervisor/trainer took the time to study the task of maintaining pumps. He did a task analysis. He wrote down all the steps of the task and then he asked the pump attendants about their regular operation and maintenance actions. He compared their actions with the correct ones. He also watched the pump attendants at work.

He saw that the attendants knew a lot about the diesel pumps. They were very skilled in the actions of starting and stopping the pumps. But he also saw that the pump attendants did not know how to check the pump or to record the fuel, oil and water use. Many of the breakdowns had been caused by low oil levels.

During the training event, this supervisor/trainer did not teach about diesel pumps. The pump attendants already had that knowledge. He taught them how to check the pump and keep records. He made the trainees practice checking and recording. The training event lasted three days.

Six months later, the Chief Engineer was happy to see that there had been very few breakdowns since the second training event.

Question To Think About

1. Was the first training event successful? Why or why not?
2. Was the second training event successful? Why or why not?
3. The pump attendant's job has 2 tasks:
 - (1) to operate, and
 - (2) to maintain pumps.

There are many separate steps in these tasks. For example, in the task of operating the pump, the steps are:

- starting and stopping the pumps
- checking the equipment
- keeping records.

Did the pump attendants lack skills in all three steps? In which steps did they need training?

4. In your opinion, was training about the theory of pumps helpful?

What We Think

Compare your opinions to the answers below.

1. The first training event was not successful. The workers' performance did not improve after the training. Training must teach workers to DO, to PERFORM. The first trainer did not have performance objectives. He was not teaching the workers to perform. He was just teaching them knowledge about pumps.
2. We know that the second training event was successful. The workers' performance did improve after the training. There were very few breakdowns after the training. The trainer had studied the task. He knew what the workers needed to learn. He knew what skills and knowledge the workers did NOT have. His training was aimed at giving the workers those skills. The training aimed at improving performance.
3. The pump attendants did not lack skills in all the steps. They already knew how to start and stop the pumps. They did not need training in those skills. They only lacked the skills and knowledge of checking the equipment and keeping records. They needed training in those two steps.
4. In our opinion, the training about the theory of pumps was not helpful because it did not teach the SKILLS that the pump attendants needed. It did not solve the problem of the pump breakdowns.

IV. IDEAS TO THINK ABOUT

1. A Task Analysis tells the supervisor/trainer what to teach the workers.

Before you give training, you must think carefully about

- (1) the workers you want to train, and
- (2) their jobs.

Suppose, for example, you bring 8 masons together and teach them to make concrete. But also suppose that these masons already know how to mix concrete properly. Is there a good reason for bringing them together for this training?

No, of course not. You should only teach masons how to mix concrete if they lack the skills of mixing concrete.

Think, about this. Your workers are making concrete slabs^{*} for pit latrines. You notice that many slabs are cracked^{*}. You analyze the problem and find a training need. You begin a task analysis.

First, you write down all the steps in the task of making a concrete slab. You yourself are not an expert in this field, so you get help and information from:

- (1) a book that shows all the steps and
- (2) information from an expert^{*}mason.

Then, you watch the masons at work. You see that they are following all the steps of making the slab. They are doing very well. But still, the slabs are cracking. You think again.

Next, you analyze the task of mixing concrete. You see that the workers are using gravel^{*} that has a lot of clay and dirt mixed with it. You know that dirty gravel should be washed before mixing with the sand and cement but the workers are not washing it. All other steps of the concrete mixing task are done correctly.

The dirty gravel is the cause of the cracked slabs. The workers do not understand the importance of clean gravel and they do not know how to clean it. This is a small problem. You do not have to teach the workers all the steps of making concrete slabs or making concrete. You only teach them why and how to wash dirty gravel. Your training event lasts only one-half hour.

Your Task Analysis told you exactly what to teach the workers.

2. A Task Analysis shows the difference between what a worker should do and what he is really doing.

There are two parts to a task analysis.

FIRST, you must gather the information about ALL the steps of the task.

You can get this information from:

- your own knowledge and skills and experience
- watching an expert worker on the job
- manuals or textbooks
- talking with experts

SECOND, you must watch the workers that have the training need.

Ask yourself these questions:

- Are the workers doing ALL of the steps that I wrote on the task analysis? What steps are missing? (You will teach these.)
- Are they doing the steps correctly? efficiently? (If not, you must teach the steps and let the workers practice them.)

THE DIFFERENCE BETWEEN WHAT THE WORKER SHOULD DO (AS SHOWN ON YOUR TASK ANALYSIS) AND WHAT HE ACTUALLY IS DOING (AS SHOWN WHEN YOU WATCHED HIM) TELLS YOU WHAT STEPS OF THE TASK MUST BE TAUGHT.

A new employee may have to be taught all the steps. A more experienced employee may need to practice only some of the steps. (Note, however, that when you teach the steps of the tasks, you review the whole task will all trainees, but you spend a lot of time only on those steps that the worker can not do well.)

A Task Analysis shows the difference between what a worker should do and what he is really doing.

3. Training should be based on the tasks that the worker must do

If your surveyors lack the skills and knowledge to do good surveying, you should teach them those skills. However, do not teach them special kinds of surveying that they will never use. Do not teach them to use equipment that they do not have at the job site. Teach them how to do only those things, and to use only that equipment that they need for the job.

If you have a new employee who will be doing drafting work, do not select him for a training event about vehicle maintenance skills! If the new employee will do drafting work, you must do a task analysis of the drafting work. When you know all the steps of his tasks, you will be able to prepare a training programme for him. If, for example, he must do lettering, teach him all the knowledge and skills necessary to do correct lettering.

REMEMBER: You must know what a worker will do in his job before you know what to teach him.

Training should be based on the tasks that the worker MUST do.

4. The steps of a task can be used for performance objectives.

Each step of a task is an action. Your training objectives are to teach the worker to do, or perform, those actions. We call training objectives performance objectives because they are about DOING or PERFORMING. The aim - or objective - is that the trainees will learn to perform the task. They must perform each step of the task - so each step can be thought of as a separate performance objective.

You will write the performance objectives when you write the steps. On the next page there is an example of steps and performance objectives. The example shows the steps of a store keeper's task of receiving and recording supplies.

EXAMPLE:

TASK ANALYSIS AND PERFORMANCE OBJECTIVES

- | | | |
|--|---|--|
| 1. Job Title | <u>STORES KEEPER</u> | |
| 2. Task | <u>RECEIVING AND RECORDING SUPPLIES</u> | |
| 3. At the end of training, the worker should be able to do the following steps of this task: | | 4. Does the worker need to be taught his task? |
| 1. <u>COUNT THE NUMBER OF ARTICLES RECEIVED</u> | | <u>NO</u> |
| 2. <u>REPORT DAMAGES ON DAMAGE CLAIM FORMS</u> | | <u>YES</u> |
| 3. <u>PUT DETAILS OF NEW ITEMS IN STORES REGISTER</u> | | <u>YES</u> |
| 4. <u>PUT SUPPLIES IN THEIR CORRECT PLACE</u> | | <u>YES</u> |

The steps of a task can be used for performance objectives.

5. Performance objectives are guides for training and testing

Performance objectives tell what the trainee should be able to do after training. The objectives are, therefore, guides to what must be taught during training.

Performance objectives also guide the testing of the trainees. They tell the trainer exactly what the trainee must be able to do after training. If the trainee CAN do what is stated in the performance objective, the training was successful. If he CANNOT do what is stated in the performance objectives, the training was not successful.

Performance Objectives are guides for training and testing.

Review Answers1. What is a task?

A task is one the duties of a job.

2. How can you discover the steps that are necessary to complete a task?

You can discover the steps that are necessary to complete a task by studying the task; by doing a task analysis. You can get information about the task from:

- (1) your own knowledge, skill and experience
- (2) watching an expert worker on the job
- (3) manuals or textbooks
- (4) talking with experts.

3. If workers are lacking some of the skills and knowledge to do a task correctly, how do you know what to teach them?

You know what to teach workers when you use a task analysis. New workers may need to learn all the steps listed in the task analysis. Experienced workers may only need to learn some of the steps. You know which steps the experienced workers must learn because you compare the task analysis with what they do. You can see exactly what steps they are not performing well.

4. How can performance objectives help the trainer to test the success of the training event?

Performance objectives tell the trainer exactly what the trainee should be able to do after training. The trainer tests the trainee to see if he can do the task in each performance objective.

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VI. NOW DO THIS

1. Study the example of a Task Analysis on page THREE/14.
Look at the following things:

1. The job title of the worker:

In this example, the workers are Field Maintenance Workers.

2. Task:

Field Maintenance Workers have several tasks to perform, but ONLY ONE of their tasks is being analyzed here. The task is: Maintaining of Spring Boxes.

3. Steps in the Task:

There are 8 steps in this task. Read them.

4. Does the worker need to be taught this step?

In this example, the supervisor/trainer watched while they worked. He saw that they could already perform steps 1 to 3 correctly, but that they made many mistakes in step 4 and often forgot to do steps 5 and 6. Steps 4, 5, and 6 will be taught. He also saw that they were very slow in performing steps 7 and 8. He thinks they need more supervised practice. He will give some instruction in these steps, too.

Please study the example now.

2. Now you must do a task analysis. It will take some time, but it is very important. You cannot continue with this book until you write all the steps in a task.

Do a task analysis of the task(s) that you will train your workers to do. Use the task (the training need) that you selected in chapter 2 on page TWO/9. Use the task analysis form on page THREE/15 to write all the steps of the task.

3. Gather information about ALL the steps of the task. You can get this information from:
 - your own knowledge and skill
 - watching an expert worker on the job
 - manuals or textbooks
 - talking with experts

4. Make a list of all the steps in the task. First write the step that must be done first. Then write the steps that must be done second. Then write the next step, etc.

5. Decide which steps need to be taught to the trainees. (REMEMBER: new employees may need to be taught all steps; experienced employees may lack only the skills and knowledge to perform a few of the steps in the task). Write yes or no on the form to show if you will need to teach each step.

EXAMPLE:

TASK ANALYSIS AND PERFORMANCE OBJECTIVES

- 1. Job Title FIELD MAINTENANCE WORKER
- 2. Task MAINTAINING SPRING BOXES
- 3. At the end of training, the worker should be able to do the following steps of this task:
 - 1. SEE IF THE DIVERSION DRAINAGE DITCH ABOVE THE SPRING IS REMOVING THE SURFACE WATER FROM THE AREA NO
 - 2. SEE IF THE FENCE ABOVE THE SPRING BOX IS IN GOOD REPAIR NO
 - 3. CHECK THE WALLS OF THE SPRING BOX TO MAKE SURE THEY ARE SOLID. CHECK FOR EROSION NO
 - 4. CHECK THE WATER TURBIDITY YES
 - 5. CHECK THE COVER TO BE SURE THE BOX IS WATER TIGHT YES
 - 6. SEE THAT ALL AVAILABLE WATER IS BEING COLLECTED INTO THE SPRING BOX YES
 - 7. MAKE SURE THAT THE SPRING BOX IS CLEANED YES
(REVIEW)
 - 8. CHECK THE SCREENS ON THE PIPES TO SEE IF CLEANING IS NECESSARY YES
(REVIEW)
 - 9. _____
 - 10. _____
 - 11. _____
- 4. Does the worker need to be taught his task?

TASK ANALYSIS AND PERFORMANCE OBJECTIVES

1. Job Title _____

2. Task _____

3. At the end of training, the worker should be able to do the following steps of this task:

4. Does the worker need to be taught his task?

- | | | |
|-----|-------|-------|
| 1. | _____ | _____ |
| | _____ | _____ |
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| | _____ | _____ |

CHAPTER FOUR

HOW DO PEOPLE LEARN?

I. OVERVIEW

You discovered a work problem that can be solved by training (Chapter 2). You looked at the tasks that are not being done well. You looked at the steps of a task and decided which of them will be the objectives of the training event you will soon give (Chapter 3).

Now that you know what skills and knowledge your workers need and what the objectives of the training are, you must decide HOW to do the training.

In this chapter you will learn that:

1. People learn skills by DOING; not by hearing about the skill.
2. Training can be done on-the-job or in a classroom.
3. Training can be formal or informal.
4. There are four important Rules for Training.

First, you must understand the meaning of these words used in Chapter 4.

II. USEFUL WORDS

FEEDBACK

Here are some examples of feedback:

"Joe, always remember to tighten these screws."

"You typed this letter just right! I'm glad you remembered to put the date at the top."

"Some information is missing from your weekly report. Sit down and I'll help you understand how to do the report correctly."

FEEDBACK IS THE INFORMATION YOU GIVE A WORKER ABOUT HIS PROGRESS. YOU GIVE (FEED) INFORMATION BACK TO HIM.

FEEDBACK TELLS THE WORKER HOW HE IS DOING. IT TELLS HIM WHAT HE SHOULD DO DIFFERENTLY IN ORDER TO DO BETTER WORK.

JOB
AID

If you make a cake and use a written recipe, that recipe is a job aid. If you use a map to guide you to your friend's house, that map is a job aid.

Sometimes, workers do a task only occasionally. Examples are: the annual report (done only once a year) or changing a typewriter ribbon (done only when necessary). Workers do not have to remember all the steps of these tasks if they have a job aid to tell them what to do.

JOB AIDS ARE WORDS, OR PICTURES, OR SYMBOLS THAT SHOW OR TELL YOU WHAT AND HOW TO DO A JOB.

JOB AIDS ARE TRAINING MATERIAL.

III. STORY

Last year in a rural area, two new employees began working with the water treatment supervisor. He was happy to have the new employees and immediately decided to train them to perform the chlorine residual test and the turbidity test.

First, he sat the new employees in his office. He told them all the steps of each test. Then he repeated the steps. Finally, he asked the new employees if they understood. Both nodded, yes.

Later in the week, the supervisor saw that the new employees were not doing the tests.

Questions To Think About

The supervisor thought he had done training. But the training was unsuccessful. The new workers did not perform the tests when they were on the job. Why do you think the training was unsuccessful? Put an X by the answers that may be true.

- The new employees were forgetful.
- The new employees did not listen to the training.
- The supervisor gave too much information at one time and the new employees couldn't remember everything.
- The new employees didn't have the time to practice the new knowledge.

What We Think

Compare your opinions to the answer below.

It is possible that the new employees were forgetful and did not listen. But the main reason that the training was not successful was that the supervisor gave too much information and too little practice.

Two important principles of learning are:

1. New information should be given in logical order and in small amounts.
2. Trainees must practice a new skill in order to really learn it.

IV. IDEAS TO THINK ABOUT

1. People learn skills by DOING; not by just hearing about the skill.

If you want to teach your child to swim, you do not just tell him about swimming and then throw him into 6 metres of water! First, you let him practice in shallow water.

In the same way, it is not enough to simply tell a worker how to do something. The worker must also practice under your guidance in order to learn to do the job.

A learner must be ACTIVE when learning a skill. The activity must be useful. Think about these two activities:

- (a) The trainer tells the steps for repairing a handpump. The trainee repeats the words.
- (b) The trainee, himself, does the steps in the proper order.

Which activity is better training? Why?

We think (b) is much better. It is a real performance Activity (a) is nothing more than repeating words. It is not very useful.

Many new instructors make the mistake of talking too much. They only tell about things. They should demonstrate the skill and then get the learner to practice it.

3. Training can be formal or informal*

Formal training may be on-the-job or classroom training. It is training that you have planned. You choose trainees, you study the task and you understand the performance objectives. You plan the time and place for instruction.

Informal training is training that takes place without planning. When you see a worker doing a task incorrectly, you correct him. This is informal training. When you give instructions to a worker, you are giving informal training IF those instructions are clear and IF you make sure that the worker understands and can practice the steps of the job. Giving a job aid for a worker is also informal training because the job aid shows the worker what to do.

Training can be formal or informal.

4. There are four important rules for good training

1. Good training lets the trainees be active.
They don't just sit and listen to the trainer.
2. Good training gives the time to practice the skill.
3. Good training has a lot of feedback.
4. Good training is logically organized (first step is taught first, second taught next, etc.) and information is given in small amounts.

There are four important rules for good training.

Review Answers

1. Why is practice important when learning a skill?

Practice is important in learning a skill because people do not learn to DO something just by hearing about it. They need to have experience doing a task. A trainer must be able to see the workers practice so that he can encourage them and give them advice.

2. What is feedback? Why is it important?

Feedback is the information that the trainer gives to a worker to tell him about his work. Feedback is important because without it, the worker may not know if his performance is good or bad. If the supervisor/trainer doesn't encourage him and tell him how to do better, the worker may not improve.

3. What should the trainer have done in order to teach the skills of surveying?

First the trainer should have explained how, why and when to do the survey work. Then he should have given demonstrations and opportunities for the practice of each step of the surveying skills. Later he should have let the trainees practice the entire skill of surveying. They should have left the classroom and gone into the field for this practice.

VI NOW DO THIS

On page THREE/15 you listed the steps of the task which you will teach in your training event. The steps that must be taught are the performance objectives. They are guides to training.

Now you must decide where to do the training - in a classroom or on-the-job or perhaps a combination of both places. Think about

- (1) the steps of the task and
- (2) the worker.

The questions on the next page will help you make your decision.

For Classroom
Instruction

CONSIDER

1. Is there a classroom available?
Is it well-lighted?
Does it have comfortable chairs and tables?
2. How many trainees will there be?
3. Can all the trainees fit comfortably in the room?
4. Will it be difficult or expensive for the trainees to get to the classroom?
5. Can the steps of the skill be learned in a classroom?
6. Is the equipment for skill practice in the classroom.?
7. Is there enough space for all the workers to practice?

For On-the-Job
Instruction

CONSIDER

1. How many trainees will there be?
Can this number be taught successfully on-the-job?
2. Will all the trainees be able to see the demonstrations?
3. Is the work place good for instruction?
Not too noisy? Not too many other activities going on?
4. Is all the equipment necessary for learning and practicing at the work place?
5. Will it be difficult or expensive for the trainees to get to the work place?
6. Can all the skills and knowledge be taught on-the-job?
7. Will the training event interrupt* other work at the work place?

When you have answered the question you will have a good idea of a place that will be suitable for your training event.

Write you choice here:

I will have a training event teaching this skill:

The training will take place:

HOW DO I GIVE TRAINING?

I. OVERVIEW

You now know what you are going to teach and where you are going to teach. You may not, however, know how to teach. In this chapter you will learn about techniques that can make you an effective trainer.

Remember that training is a skill - it requires practice to be a good trainer. This book can give you an understanding of how to train, but you must also practice.

In this chapter you will learn that:

1. The three steps of skill learning are guides for lesson preparation*.
2. Training materials* are useful aids* to learning.
3. There are teaching hints about:
 - leading* discussions
 - giving demonstrations
 - giving instructions
 - supervising practice

First, you must understand the meaning of this word used in Chapter 5.

II. USEFUL WORD

HAND-
OUT

Printed* information (hand outs) given to trainees during a training event can be very helpful. Often trainees keep hand outs and use them after training. Examples of hand outs are:

- (1) a written summary of the important points you are teaching;
- (2) copies of the charts*, diagrams* or pictures which you use;
- (3) a list of the performance objectives that the trainees must be able to do.

HAND OUTS ARE PRINTED MATERIALS HANDED OUT DURING TRAINING. THE PURPOSE OF A HAND OUT IS TO HELP TRAINEES LEARN AND REMEMBER.

III. STORY

George is a new supervisor/trainer and he wants to do good training. But, he is discouraged". Last month he gave a three day training event to teach masons to build a new type of concrete rainwater catchment tank. The training was not successful. Listen to George.

"I don't understand what was wrong. I did a complete task analysis. I knew all the steps of building the new rainwater catchment tank. I knew the previous techniques the workers have used and so I knew what steps they had to do differently in order to build the new tank. I knew the performance objectives and I used them to guide the training. I did all the preparation for training."

"But then, when the training began, everything went wrong. I gave the trainees some handouts to read, but no one read them. When I tried to get the trainees to discuss their other experiences they just answered by questions with a yes or no. When I showed them what to do most of the trainees didn't watch me. They were bored while waiting for their turn to practice."

"I want to be a good trainer. But maybe trying to train these workers is impossible."

Questions to Think About

1. Do you think that the reason for George's failure was his own personality? Is it possible that he didn't have the right personality for a trainer?
2. Do you think training is a skill? If so, do you think it is possible to study the steps of training? Is it possible to improve the skill of training?

What We Think

Compare your opinions to the answers below.

1. We do not think that George's training event was a failure because of his personality. It is true that some trainers are more interesting or more fun than others; but it is also true that all supervisors can learn the skills of training. We think that the cause of George's failure may be that he did not learn and practice techniques that could make him a good trainer.
2. Yes, training is a skill. It is possible to study the steps of training to improve training.

This book does not include all the background and philosophy of training. You are not going to be university instructors or full-time trainers at a technical institute so you do not need all that information. The book does, however, give you useful hints and techniques for teaching your workers. If you understand and practice these techniques, you can become an excellent trainer.

IV. IDEAS TO THINK ABOUT

1. The three steps of skill learning are guides for lesson preparation.

Before you begin training, you must prepare each lesson. You will be teaching skills, so your lesson must include all three steps of skill learning.

WARNING! YOU MUST LEARN THESE THREE STEPS OF SKILL LEARNING. STUDY THEM NOW

STEP ONE:

In this part of the lesson you:

Understand the skill

- (a) Tell the trainees what they must do during the training event. Tell them the task they must learn to perform (the performance objectives);
- (b) Tell them why it is necessary to learn;
- (c) Explain, show or demonstrate the task or steps that will be learned in the lesson. This gives the trainees a clear, overall picture of what they will learn. Some methods to help give this overall picture are:
 - have a discussion about the task and the trainees' experience with the task;
 - show films or posters illustrating the task;
 - give a short lecture about when and why to use the skill;
 - show the tools or equipment that will be used in the skill;
 - give hand outs that the trainees can use and study after the event.

STEP TWO:

In this part of the lesson you:

Physically practice the steps of the skill

- (a) Slowly and carefully explain and demonstrate the steps you are teaching in this lesson. The trainee watches, listens and asks questions.
- (b) Demonstrate again. This time ask trainees to tell you what to do before you do it.
- (c) Let each trainee practice.
 - First, he tells you what he is going to do;
 - Next, he does it;
 - Third, you give feedback. Correct mistakes and let him practice again.

STEP THREE: In this part of the lesson you:

Practice the whole skill

- (a) Review all the steps. Discuss and demonstrate again.
- (b) Let trainees practice the whole skill while you watch.
- (c) Give feedback.

IMPORTANT NOTE:

These three steps should be a part of every lesson. If you are teaching a clerk how to write a complaint form, the three steps might take only 15 minutes. If you are teaching surveyors how to use new equipment, they may take 15 days!

The three steps of skill learning are guides for lesson preparation

2. Training materials are useful aids to learning

Training materials are things which help people to learn. Examples are: hand outs, job aids, books, manufacturer's manuals, posters, films, photographs, real equipment etc.

The most important training materials for skill learning are the equipment and tools for trainee practice. For example, a typewriter is a necessary training material for someone learning to type. A picture of a typewriter is not enough! In the same way, workers learning to lay pipes must have pipes and a place to practice laying pipes.

Other materials are also useful. When you are teaching the understanding of a skill, you can give the workers some written information if they can read and if the material is well written and useful.

Posters or drawings can also be useful teaching materials if they show a difficult or important idea. You can make these pictures yourself.

Job aids are very useful training materials for some tasks. If the skill you are teaching has many steps, it is a good idea to make a chart telling or showing those steps. Give a copy of this job aid to each worker and he can use it whenever he must perform the task. (Note: You must first teach him the task. The job aid will be used only after the training event).

Job aids can also be made for those tasks which a worker does not do often. In such cases it is not necessary for him to remember all the steps of the task. Instead he can simply look at the job aid for instructions.

Training materials are useful aids to learning.

3. Here are some teaching hints• LEADING DISCUSSIONSWHAT IS A DISCUSSION?

A discussion is talking and giving opinions and information by all members of a group. The discussion leader guides the discussion by asking questions.

WHY ARE DISCUSSIONS USEFUL?

Discussions are useful because letting trainees think and talk about the subject is more ACTIVE than just listening to the trainer talk.

RULES FOR LEADING DISCUSSION:

- (a) Discussions should be guided*. Have goals for it.
Prepare some questions before the discussion.
- (b) Do not ask questions which can be answered by YES or NO.
- (c) Do ask questions that begin with WHAT, WHERE, WHEN, HOW, WHY, WHO.
- (d) Let trainees ask questions too.
- (e) Do not let the discussion get too far away from the central topic.
- (f) Summarise the discussion occasionally.

• GIVING DEMONSTRATIONSWHAT ARE DEMONSTRATIONS?

In a demonstration the trainer explains and does all of the steps of the skill he is teaching. He shows and tells how to do something. Trainees are active in the second demonstration and the following practices.

WHY ARE DEMONSTRATIONS USEFUL?

Demonstrations are useful to show the complete task before the trainees begin to practice it.

RULES FOR GIVING DEMONSTRATIONS:

- (a) The trainer should practice giving the demonstration before the training event. Demonstrate only correct methods. Make sure you can perform all the steps correctly yourself!
- (b) Before you begin the demonstration, make sure you have all the necessary equipment and tools.
- (c) Make sure that all trainees can see each step of the demonstration.
- (d) Explain what you are doing while you are doing it. Make sure all trainees can hear. Emphasize*important points. Let trainees ask questions.
- (e) Explain the meaning of technical*terms.
- (f) Explain dangers and necessary safety precautions*.
- (g) Ask the trainee questions to see if he understands all the steps.
- (h) Do the demonstration a second time. Let the trainees tell the order in which to do the steps before you do them.
- (i) Always finish the demonstration by letting each trainee practice the demonstrated steps.

• GIVING INSTRUCTIONS

WHAT ARE INSTRUCTIONS?

Giving instructions means explaining actions step-by-step so that the listener can understand and remember each step. Giving instructions is telling the worker what to do and how to do it.

WHY ARE INSTRUCTIONS USEFUL?

When you give spoken instructions, the listener has a chance to ask questions. If only written instructions are given, the worker may not understand.

RULES FOR GIVING INSTRUCTIONS:

- (a) Do not use words that the trainee doesn't understand.
- (b) Do not give too much information. Only tell what is necessary in order to do the job well.
- (c) Give one instruction at a time. (It is difficult to remember too much information at one time.)

- (d) Do not just tell instructions. Show (demonstrate) what should be done.
- (e) Repeat instructions for several days to be sure that the trainee has not forgotten.
- (f) Give a job aid with words or pictures to the worker. He can use it later.

● SUPERVISING PRACTICE

WHAT IS SUPERVISED PRACTICE?

When trainee practices the new skill under the guidance of a more skilled worker (or a trainer), it is supervised practice.

WHY IS SUPERVISED PRACTICE USEFUL?

Trainees learn by doing. Practice gives them the opportunity to actually do skills. Trainees should be supervised at first so that neither the trainee or the equipment is injured. The supervisor tells the trainee how he is doing and how to do better.

RULES FOR SUPERVISING PRACTICE:

- (a) Let the trainee tell and explain the steps of the task before he actually does them.
- (b) Let the trainee practice the difficult steps of the task before doing the complete task.
- (c) Watch the trainee perform the task. Answer his questions and give advice.
- (d) Give a lot of feedback. Praise success and correct mistakes. Tell the trainee how he is doing and how his work can be better.
- (e) Give the trainee time to practice as much as is necessary.
- (f) Be patient*. Be helpful.

If you want to be a good trainer, STUDY AND REMEMBER these teaching hints*!

Review Answers

1. You are preparing a lesson to teach a skill. What three steps must you always follow?

When preparing a lesson to teach a skill you must include the three steps of skill learning. They are:

- (1) Understanding the overall skill;
- (2) practicing the steps of the skill;
- (3) practicing the whole skill.

2. What does the trainee do during the first demonstration? The second?

The first time that you give a demonstration, the trainees watch carefully, listen to your explanation and ask questions if necessary. The second time you give the demonstration, the trainees try to tell you what to do before you do it. They should explain the steps.

3. Are written training materials always useful?

Written training materials are useful IF the trainees can read and IF the materials are useful for the skill you are teaching. If you give a written hand out you should be sure that it is something that the trainees will learn from.

VI. NOW DO THIS

1. On pages FIVE/11 to FIVE/13 is an excellent example of how a supervisor/trainer prepared a lesson to teach new mechanics how to grease* a well motor bearing. There are three columns* in this Lesson Plan.

- Notice that he divided the task of greasing the well motor bearing into 18 steps (first column).
- Next, he wrote other useful information. He called this information KEY POINTS (second column).
- Finally, he planned how to teach the skill. In the third column, he made training notes.

Study this example.

2. Make a Lesson Plan for your training event. Use the form on page FIVE/14.

- In Column 1 write the steps of the task (take this from your task analysis and performance objectives on page THREE/12.)
- In Column 2 write hints (Key Points) that the trainee should know - e.g. things that will make the step easier or safer.
- In Column 3 write any training materials you will use for each step. List such things as chalkboard illustration, sample equipment, posters, hand outs, job aid etc. (This column for training materials was not in the sample Lesson Plan.)
- In Column 4 (Training Notes) write the activity you will do to help the trainees learn this step. For example, discuss, explain, demonstrate, ask questions, supervise, etc. Also tell what the trainee will do. For example, they will listen, discuss, observe, practice etc.

LESSON PLAN (EXAMPLE)

EXAMPLE

Training outline for: GREASING A WELL MOTOR BEARING

STEPS IN THE JOB (What to do)	KEY POINTS (hints)	TRAINING NOTES (How to teach it)
<ol style="list-style-type: none"> 1. Open grease gun and fill if necessary with CLEAN grease. 2. Pump lever a few times to make sure that gun is working. 3. Select tool to remove plug from bearing housing. 4. Stop motor. 5. Locate both nipple and grease discharge plug. 6. Wipe nipple free of dust etc. 7. Remove plug from grease discharge hole. 8. Attach grease gun nozzle to nipple. 	<ol style="list-style-type: none"> 2. If working, grease will come out from nozzle like tooth-paste. 3. Use spanner or screw driver depending on type of plug. 4. Control panel is in well house. 5. Plug will generally be opposite the nipple. 6. Use a clean rag. 8. Be sure that no grains of dust have adhered to nipple prior to attaching. 	<p>OVERVIEW - EXPLAIN purpose of entire operation.</p> <p>STEP 1, 2 & 3: Display several grease guns (some filled, some empty, some containing old grease and some not working). Explain procedure for selecting usable one. Let trainee explain and select.</p> <p>STEPS 4, 5, 6, 7, & 8: Explain and demonstrate. Ask trainee to re-tell and explain each step. Allow trainees time to practice steps 7 & 8. REVIEW: Ask trainee to tell about all steps completed so far.</p>

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FIVE/11

LESSON PLAN (EXAMPLE)

EXAMPLE

Training outline for: GREASING A WELL MOTOR BEARING (Continued)

STEPS IN THE JOB (What to do)	KEY POINTS (hints)	TRAINING NOTES (How to teach it)
<p>9. Pump grease until old dirty grease is displaced by new grease.</p> <p>10. Disconnect grease gun.</p> <p>11. Start motor & allow to run 2 - 5 minutes.</p> <p>12. Stop motor.</p> <p>13. Replace plug in grease discharge hole.</p> <p>14. Remove accumulated grease at nipple and plug. Dispose of it.</p> <p>15. Wipe areas around nipple and plug clean.</p> <p>16. Restart motor.</p>	<p>9. New grease will come out from grease discharge hole when it has displaced the old grease. The new grease can be recognized because it will appear lighter in colour and have a more fluid texture than the old grease which has preceded it out of the discharge hole.</p> <p>11. Run until excess new grease stops coming out from grease discharge hole.</p> <p>14. Use paper or rags.</p>	<p>STEPS: Supply samples of old and new grease and allow trainee to become familiar with their characteristics. Help him recognize the point at which new grease is being discharged. (Several different types of bearings will have to be greased to give the trainee necessary practice).</p> <p>STEPS 10, 11, 12 & 13: Demonstrate & explain. Ask trainee to explain reason for steps 11 and 12.</p> <p>REVIEW: Ask trainee to explain all steps completed so far.</p> <p>STEPS 14, 15, 16, 17 & 18: Demonstrate and explain. During step 17, explain again all steps from 1 to 18.</p>

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LESSON PLAN (EXAMPLE)

EXAMPLE

Training outline for: GREASING A WELL MOTOR BEARING (Continued)		
STEPS IN THE JOB (What to do)	KEY POINTS (hints)	TRAINING NOTES (How to teach it)
<p>17. After about 15 minutes, check bearing house by touching with fingers to ensure no over-heating.</p> <p>18. Record work done, date and time in log book.</p>	<p>17. If there is overheating, one of the above procedures has probably not been performed correctly. Repeat steps 4 through 17.</p> <p>18. Log book will be in well house.</p>	<p>REVIEW: allow trainee to grease well motor bearing in 3 - 5 other wells while under trainer's supervision.</p>

WHEN IS TRAINING FINISHED?I. OVERVIEW

Some people think that training begins on the first day of a training event and ends when the trainees walk out of the classroom on the last day. These people may also believe that on-the-job training is finished as soon as the trainer has shown or helped the worker to do the task one or two times.

This is wrong. Training continues. The instruction that you give (in a classroom, a workshop, or on-the-job) is only the first step. Sometimes the worker can do a task during the training event, but he does not do it in the same way when by himself on the job. Training must continue to help the worker use his new skill on the job.

In this chapter you will learn that:

1. Follow-up is necessary to make sure that training has a lasting effect on the skills of the trainee and on the performance of your water agency.
2. Evaluation (testing) of training does not tell if the trainee LIKED the training event. It tells if he can PERFORM the new tasks which were taught.
3. A training event is successful only when the trainees can and DO perform better on the job as a result of the training.

First, you must understand the meaning of these words used in Chapter 6.

II. USEFUL WORDSFOLLOW-UP

Sometimes workers finish training and then go back to jobs where they do not use the new skills. Without continued practice on the job, they forget the new skill. A good trainer knows that it is part of his job to prevent such forgetting. He will always follow-up training

FOLLOW-UP IS THE PART OF TRAINING THAT HAPPENS AFTER THE TRAINING EVENT HAS ENDED.

FOLLOW-UP IS THE PART OF TRAINING DURING WHICH THE TRAINER.

- (1) REVIEWS THE STEPS WITH THE TRAINEE.
- (2) GIVES HIM FEEDBACK; AND
- (3) MAKES SURE THAT THE TRAINEE USES HIS NEW SKILL CORRECTLY ON THE JOB.

EVALUATION

In a training course, it is important to test the trainees and also to test the training course. Trainers want to know if the trainees are able to do a task after training. They also want to know if the training event itself was good.

EVALUATION MEANS TESTING THE TRAINEES TO SEE IF THEY CAN DO THE ACTIONS STATED IN THE PERFORMANCE OBJECTIVE.

EVALUATION ALSO MEANS STUDYING THE TRAINING EVENT TO SEE IF IT WAS A SUCCESSFUL WAY TO TEACH THE SKILL.

III. STORY

George is a supervisor/trainer who carefully planned a training event for shallow well construction skills. He trained his own workers and also those from a neighbouring town. First, he did a task analysis. Then, he wrote performance objectives. He planned lessons that gave the trainees a lot of supervised practice. On the last day of the training event, he knew that the trainees had learned the skills of shallow well construction. They were able to do everything that was stated in the performance objectives.

Two months later, however, George visited a well site and saw that the newly-trained workers were not using their new skills. He does not understand why the workers are using the old methods of well construction. Their work is very poor. He is discouraged".

Questions to Think about

1. Why do you think the workers are not using their new skills?
2. What can a trainer do to make sure that trainees use the new skills on the job?

What We Think

Compare your opinions to the answers below.

1. There are many reasons why a worker does not work better after he has had some training. For example;
 - he may not have the proper tools.
 - his supervisor may not encourage him to use the new skills.
 - he may have forgotten the new skill because he did not have the opportunity to use it very often.
2. A good trainer will follow-up and evaluate the training event by watching and helping the trainees after the training is finished. He will continue to help the trainee on the job. He will talk to the supervisor, if necessary, to make sure that the workers have the proper tools and the right job to use the new skills.

IV IDEAS TO THINK ABOUT

1. Follow-up is necessary to make sure that training has a lasting effect on the skills of the trainee and on the performance of the water agency.

You give follow-up because you want to watch the worker when he is back on the job. You want to see if he remembers and is using the skills which you taught him. Often, you will find that, although the worker could perform perfectly at the end of the training, his performance is poorer when he tries to do the task back on the job. This is not unusual. This is why you must do follow-up. Many trainees need more feedback (encouragement and advice) in order to make the new way of performing into a work HABIT. IT IS WITH FOLLOW-UP THAT YOU MAKE SURE THAT THE WORKER DOES NOT LOSE THE NEW SKILL.

Follow-up is the part of training during which you visit the workers at the work place in order to help, encourage and give advice about their performance of the new skill. It may last from 3 weeks to 3 months to 3 years! Follow-up is frequent observation and feedback until you are sure that the worker is doing the new task well and regularly on the job.

If you do not personally supervise these workers, you must talk to their supervisor and make sure that he encourages them to use their new skills. The workers must be assigned to do the task they have been trained for and they must have the proper equipment. Part of your follow-up responsibility is to see that the workers have the proper tools and the proper work situation.

Follow-up is necessary to make sure that training has a lasting effect on the skills of the trainee and on the performance of the water agency.

2. Evaluation of training does not tell if the trainee LIKED the training event. It tells if he can PERFORM the new tasks which were taught.

Evaluation means testing. It means testing what the trainee is able to DO as a result of the training he received. The evaluation step of training will be very easy, because you have prepared your training event with performance objectives to guide you.

The performance objective tells you what the trainee must be able to DO. To test him, therefore, ask the trainee to perform the action stated in the performance objective. If he can do it well, he is successful.

REMEMBER: Do not ask him to talk about the task - ask him to DO it!

If the trainees can perform the skills which were taught, you also know that the training event itself was successful. If the trainees did not learn to perform, you will want to change the training event before you give it again. You may want to use more training activities; or you may want to provide more demonstrations, or hand outs, or opportunity for supervised practice. You may want to have different training materials; or use different teaching methods. You may want to re-examine the task analysis and performance objectives to make sure that you are teaching the right skills.

REMEMBER: IF THE TRAINING EVENT WAS UNSUCCESSFUL - THAT IS, IF IT DID NOT TEACH THE TRAINEES THE NEW SKILLS - YOU MUST CHANGE IT BEFORE YOU GIVE THE TRAINING EVENT AGAIN.

Some people 'evaluate' training by means of a written questionnaire given at the end of the training event. Such questionnaires, usually ask if the trainee enjoyed the training; if the training was long enough; if the instructor was good, etc.

Such questionnaires do not tell the trainer if the trainee can perform! Such questionnaires only tell if the trainee liked the course. It does not tell if the training was successful.

When you evaluate a training event, do not use questionnaires. Use the performance objectives as guides and ask the trainee to actually DO the task.

Evaluation of training does not tell if the trainee LIKED the training event. It tells if he can PERFORM the new tasks which were taught.

3. A training event is successful only when the trainees can and DO perform better on the job as a result of the training.

It is important to understand that if the trainees do perform at the end of training but DO NOT perform when they are back on the job, the training is NOT successful.

SUCCESSFUL TRAINING NOT ONLY TEACHES THE WORKER A NEW SKILL - IT ALSO MAKES SURE THAT THE WORKER USES THE NEW SKILL.

If the worker has a new skill but does not use it, then the training has not helped your water agency. You must make sure that the workers learn the right skills and that they USE those skills.

A training event is successful only when the trainees can and DO perform better on the job as a result of the training.

V. REVIEW

Before you continue reading, study the Review. Think about the questions. Write answers using your own words. Then compare your answers to those on page SIX/6.

1. Do you think that follow-up is part of training?
2. Do you think that follow-up will take a lot of your time?
3. What is the difference between evaluation and follow-up?
4. How would you plan evaluation activities?

Review Answers

1. Do you think that follow-up is a part of training?

Follow-up is a part of training. The purpose of training is to change the behaviour of the worker. If you do not follow-up you can not be sure that his behaviour really changes on the job. Also, many trainees need your continued feedback and encouragement in order to make the new skill become a habit on the job.

2. Do you think that follow-up will take a lot of your time?

Follow-up does not usually take a lot of time. As a supervisor you have frequent opportunities to watch your workers. Follow-up means that when you watch them, you also take the time to give feedback and help while they are working.

FOLLOW-UP SHOULD BE A PART OF YOUR REGULAR SUPERVISORY DUTIES.

3. What is the difference between evaluation and follow-up?

Evaluation tests the ability of the worker to perform. Follow-up helps the worker to continue performing well.

4. How would you plan evaluation activities?

Evaluation activities can be easily planned using the performance objectives as guides. The trainer gives the trainee the opportunity to do exactly what the performance objective says. No special test is necessary. DOING the action in the performance objective is the test.

VI. NOW DO THIS

1. Study the EVALUATION REPORT below. Notice that the trainee was successful in performing all three skills at the end of training.

Also notice that when the supervisor/trainer did his first follow-up (two weeks later), the trainee could no longer perform skills 2 and 3. Thus, some follow-up activities were done.

At the next follow-up occasion (one week later) the trainee was once again successfully performing the tasks.

2. Make Evaluation Reports for each one of the trainees that will be in your training event. A sample form for one trainee is on the next page. You will not use these Evaluation Reports now. Use them at the end of training and afterwards during follow-up.

- In the first column, list each skill to be taught.
- At the end of the training event, evaluate each trainee and see if he can perform the action stated in the performance objective.
If he can, mark the line for successful.
If he can not, mark the line for unsuccessful.
Give more training.
- After the training, again evaluate the trainee. This time while he is working on the job.
- You may have to take follow-up action on the job.
- Continue to give follow-up as a part of your regular supervisory duties.

EXAMPLE

EVALUATION REPORT FORM

Name of trainee	JOHN					
Performance objective	End of training	On the job		On the job		
	JAN. 10, 1985 (month, day, year)	JAN. 25, 1985 (month, day, year)	JAN. 25, 1985 (month, day, year)	FEB. 1, 1985 (month, day, year)	FEB. 1, 1985 (month, day, year)	
1. TO BE ABLE TO DOWN A SLOW SAND FILTER	Successful	X	Successful	X	Successful	X
	Unsuccessful	---	Unsuccessful	---	Unsuccessful	---
	Follow-up	---	Follow-up	---	Follow-up	---
2. TO BE ABLE TO PREPARE A FILTER FOR CLEANING	Successful	X	Successful	---	Successful	X
	Unsuccessful	---	Unsuccessful	X	Unsuccessful	---
	Follow-up	---	Follow-up	YES	Follow-up	---
3. TO BE ABLE TO CHARVATE THE FILTER SAFELY	Successful	X	Successful	---	Successful	X
	Unsuccessful	---	Unsuccessful	X	Unsuccessful	---
	Follow-up	---	Follow-up	YES	Follow-up	---

EVALUATION REPORT FORM

Name of trainee _____

Performance objective

End of training

On the job

On the job

(month, day, year)

(month, day, year)

(month, day, year)

1.	Successful	Successful	Successful
	Unsuccessful	Unsuccessful	Unsuccessful
	Follow-up	Follow-up	Follow-up
2.	Successful	Successful	Successful
	Unsuccessful	Unsuccessful	Unsuccessful
	Follow-up	Follow-up	Follow-up
3.	Successful	Successful	Successful
	Unsuccessful	Unsuccessful	Unsuccessful
	Follow-up	Follow-up	Follow-up
4.	Successful	Successful	Successful
	Unsuccessful	Unsuccessful	Unsuccessful
	Follow-up	Follow-up	Follow-up
5.	Successful	Successful	Successful
	Unsuccessful	Unsuccessful	Unsuccessful
	Follow-up	Follow-up	Follow-up
6.	Successful	Successful	Successful
	Unsuccessful	Unsuccessful	Unsuccessful
	Follow-up	Follow-up	Follow-up

FINAL PREPARATION

I. OVERVIEW

You now know what to teach. (You decided that as a result of the task analysis in Chapter 3). You also know what type of training you will give (Chapter 4) and how to teach the skills (Chapter 5). But you still are not ready to do training. You must make final preparation.

In this chapter you will learn that the final preparation for a training event means:

1. telling all the people who will be involved;
2. deciding how much time will be needed;
3. making sure that all equipment and materials are available; and
4. arranging for a suitable training site.

II. STORY

This is another sad story about George, a supervisor/trainer who recently had a training event. He carefully studied the task, wrote performance objectives, selected methods for training and then was ready for teaching.

He invited and expected 8 pump mechanics to attend his three day course to up-grade their skills. Only 5 men arrived on the first day (the other three could not leave their other job duties).

Much time was wasted because there was only one pump and one set of tools for practice sessions.

The discussions were failures because the training site was next to the machine shop and it was too noisy to hear discussions.

The third day of the training event was a government holiday and the trainees did not come. Therefore, the three day course for 8 trainees was really a two day course for 5 trainees.

Even though George planned for systematic training, the actual training was not very successful.

Questions to think About

1. What went wrong? Does George just have bad luck?
2. What could have been done differently? Consider these things trainees selected; time; length of training; equipment.

What We Think

Compare your opinions to the answers below.

1. We do not think that George has bad luck. We think that George should have made more plans for the training event. It is true that he had done careful preparation for the training event itself, but unfortunately, ~~he~~ he did not think about other outside things.

2. Many things could have been done differently if George had done some careful preparation.

In the following section there are four sets of questions to think about before you have a training event. They will help you make the final preparation for your training. George did not think about these questions.

III. IDEAS TO THINK ABOUT

Think about the following things when making final preparations for your training event. Some of the items are important only for formal training events. Others are important for both formal and informal training.

Think about all of them!

SELECTING
TRAINEES

What is important?

Think about

1. Will the workers be able to use this new skill when they go back to their job.
2. What does the worker already know about the job? Does he need only a review or is everything new to him?
3. What is the worker's attitude toward training? Is he embarrassed at having to be trained? Is he proud of being chosen for training?
4. How many people need the training?
5. Can the worker leave his job to take part in the training?
6. Can the worker easily get to the training site?
7. Have the worker and his supervisor both been talked to about the need for training and the dates of training?
8. If you do not personally supervise the trainees, will their own supervisor be willing to do the follow-up?

DECIDING ON THE
TIME FOR TRAINING

What is important?

Think about

1. How much time will be necessary for training? For practice?
2. How much time is available?
3. Should the training take place all at one time (e.g. in 3 full days) or should there be time between each lesson (e.g. half-day sessions which meet on Tuesday afternoon for 6 weeks)?
4. Are the dates convenient for you? the workers? their supervisors?
5. Will important work be slowed down if workers come to the training at this time?
6. Are there government holidays during the training period?
7. Is there enough time for follow-up?

THE PEOPLE AND
EQUIPMENT

What is important?

Think about

1. What equipment for demonstrations and practice is needed? Is there enough equipment to let all the trainees practice? Is it available at the training site?
2. What training materials are needed? Hand outs? posters? chalkboard? etc. Are they available? Should they be made? Should they be ordered?
3. What supplies are required? notebooks? pencils? pens? chalk? etc.
4. What expenses will there be?
 - transportation of trainees?
 - cost of materials and supplies?
 - food and drinks?
 - secretarial services?
 - etc.
5. Will secretarial help be needed? When should it be arranged.
6. When should managers and supervisors be told?

THE TRAINING SITE

What is important?

Think about

1. Is the site large enough for the number of trainees?
2. Is there an area for trainees to practice the skills?
3. Is the site quiet?
4. Does the site have good lighting?
5. Does the site have electricity (e.g. for film projectors or other equipment)? Is electricity necessary?

IV. NOW DO THIS

To help you prepare your training event, you should complete the TRAINING EVENT PREPARATION FORM which follows.

TRAINING EVENT PREPARATION FORM

1. WORK PROBLEM (You selected this in Chapter 2.) Take the information from page TWO/9.

A. What kind of workers are having a problem? _____

B. What kind of problem are they having? _____

2. PERFORMANCE OBJECTIVES (You determined these in Chapter 3.) Copy the objectives -the steps of the task- from page Three/12.

3. EQUIPMENT AND SUPPLIES NEEDED

4. PLACE OF TRAINING

5. DATES OF TRAINING

6. NAMES OF TRAINEES

7. LESSON PLAN (You did this in Chapter 5.. Attach it here.)

TRANSLATORS GLOSSARY

<u>PAGE</u>	<u>WORD</u>	<u>DEFINITION</u>
ONE/1	OVERVIEW	A general and short look at the information in this chapter.
ONE/1	SUPERVISE	To oversee or be in charge of workers.
ONE/1	JOB	A person's work; what he is paid for doing in the water agency.
ONE/1	DO A GOOD JOB	Do the work well (correctly and quickly).
ONE/1	MISTAKE	Something that is not done correctly; and error or a fault.
ONE/1	SHOULD THEY MAKE FEWER MISTAKES?	Do the workers do the work incorrectly? Do they cause problems because they do the work in the wrong way?
ONE/1	ACCIDENT	An unexpected and undesirable event; something that happens without planning. It often causes injuries or breakages.
ONE/1	SHOULD THEY HAVE FEWER ACCIDENTS?	Do the workers injure themselves or the equipment frequently?
ONE/1	MATERIALS	Tools and equipment needed to do the work.
ONE/1	EQUIPMENT BREAKDOWNS	Tools or machinery that stop working. They cannot be used because they are broken.
ONE/1	CALLBACK	The need for workers to go back again and repair something because it broke down soon after they had installed or repaired it the first time.
ONE/1	SUPERVISOR	The person who is in charge of workers.
ONE/1	EXPERT AT THE JOB	A person who does a job very well because he has good knowledge and good ability or skill.
ONE/1	GUIDELINES	Directions.
ONE/1	SUCCESSFUL TRAINER	A teacher whose students or trainees learn because the teacher knows how to teach well.
ONE/1	EXERCISE	A problem or a lesson that is used to help students or trainees learn something.

ONE/1	EFFECTIVE TRAINING	Teaching that really helps workers do a better job. The training results in what you wanted.
ONE/1	SYSTEMATIC TRAINING	Teaching that is planned to follow certain important rules and steps.
ONE/2	REWARD THAT LUCKY WORKERS RECEIVE	Training is sometimes given as a gift to workers who do good work. Trainees may think that training is a gift or reward because training allows them to go away to a training course and be away from their regular jobs.
ONE/2	JOB PROMOTION	A raise to a higher grade or position or rank of job. A worker receives more money when he receives a job promotion.
ONE/2	SKILLS AND KNOWLEDGE	The information and abilities that are necessary to do a job well.
ONE/2	PART-TIME TRAINER	A person who does training some of the time and does other work for the rest of the time.
ONE/2	TRAINING OFFICER	A person whose job is to take care of training activities in an organisation.
ONE/2	FULL-TIME RESPONSIBILITIES	The entire job is about training e.g. planning, managing, giving, evaluating training.
ONE/2	COMMUNICATE INSTRUCTIONS CLEARLY	Show or give directions or guidance or knowledge or information to other people. To give these directions in a careful way so that the listener can understand.
ONE/2	LEARN AND PRACTICE SKILLS	To do something again and again in order to learn to do it very well.
ONE/3	FORMAL	Formal training usually means training in a university or a technical school.
ONE/3	OUTSIDE INSTRUCTORS	Teachers or trainers who do not work for your water agency. They are usually professional trainers who can be hired to teach a course.
ONE/3	RURAL	Not in the city. Usually a farming area or a village.

ONE/3	INSTALL AND MAINTAIN DISTRIBUTION PIPES	To put in and connect and take care of the pipes that deliver the water. Distribution pipes are also called reticulation system pipes.
ONE/3	GRAVITY-FLOW SYSTEM	Water which comes to the community from a source that is higher than the community. It flows through pipes by gravity.
ONE/3	LEAKY PIPES	Pipes that have cracks or holes where water comes out.
ONE/3	WORKING OVERTIME	Working more than the usual number of hours. Workers are paid extra money for working overtime.
ONE/4	OPINIONS	Ideas, beliefs.
ONE/4	CONSEQUENTLY	As a result.
ONE/4	THE SUPERVISOR IS BLAMED	The supervisor is responsible for the bad work of the workers. It is his fault.
ONE/5	YOU ARE PRAISED	You are given approval. You are complimented.
ONE/5	RE-DO	Do again; repeat.
ONE/5	MIS-USE OR CARELESSNESS	Using tools or equipment in the wrong way or for the wrong purpose; not taking care of them properly.
ONE/6	SOLVABLE THROUGH TRAINING	The problem can be corrected if good training is given.
ONE/6	LESS SUPERVISION AND LESS CORRECTION	Fewer hours supervising workers and correcting their mistakes.
ONE/6	ACCOUNTING CLERKS	People who work in an office keeping records of money collected and money spent
ONE/6	MIS-USE	(See definition for Page ONE/5)
ONE/6	EFFECTIVE TRAINING	(See definition for Page ONE/1)

ONE/6	SYSTEMATIC TRAINING	(See definition for Page ONE/1)
ONE/7	REVIEW	A re-study or re-examination of the information and ideas in this chapter.
 <u>CHAPTER TWO</u>		
TWO/1	PATIENT	A sick person who is in care of a doctor.
TWO/1	PRESCRIBES A MEDICINE	To order or recommend medicine for the patient.
TWO/1	SIMILAR TO	A thing that is like, but not identical to something else.
TWO/1	AUTOMATICALLY	To do something without thinking about it.
TWO/1	SOLUTION	The answer to a problem.
TWO/1	LACK OF SKILLS OR KNOWLEDGE	The worker does not have the ability or the information to do the job well. A lack is an absence of; a lack of skills means not enough skills or no skills.
TWO/1	MOTIVATED	The worker is not motivated when he does not care about the job. He does not want to do a good job. He does not have good feelings about the work.
TWO/2	WASTED	Materials are used carelessly; too many are used.
TWO/2	POOR WORKMANSHIP	The <u>quality</u> of the work is not good e.g., concrete is mixed improperly and it cracks; or trenches are not dug properly and the sides fall.
TWO/2	STANDPOSTS	Standpipes, public taps or public fountains.
TWO/2	TRADITIONAL SOURCES	The places where people used to get their water before they had standposts or improved wells. Usually traditional sources are ponds, streams or open wells.
TWO/2	WATER-BORNE DISEASE	Illness that is passed from one person to another through contaminated (dirty) water. For example, typhoid, cholera, poliomyelitis, amoebiasis etc.

TWO/2	NON-FUNCTIONING	Not working; not running; broken.
TWO/2	DISMISS	To remove from the job; to fire.
TWO/2	MECHANICS	People who have the job of maintaining and repairing machines. In this case, the job is to maintain and repair diesel pumps.
TWO/2	BREAKDOWNS	A broken pump; pumps that are not working. (See also definition on page ONE/1).
TWO/3	LACK OF SKILLS AND KNOWLEDGE	(See definition for page TWO/1).
TWO/3	PUMP ATTENDANTS	Pump caretakers; pump attendants usually take care of the pump area and do minor repairs. They are usually not trained mechanics.
TWO/3	MAJOR REPAIRS	Large or complicated work needed to repair a pump. Major repairs often require knowledge, skills and tools that pump attendants do not have.
TWO/3	COMMUNICATIONS	Exchanging messages by talking or writing.
TWO/4	OPERATE	To run the pump; to control it.
TWO/4	WORN PARTS	Parts of the pump that are old and may soon break.
TWO/4	CENTRALLY LOCATED	The central office of the region; pump mechanics may have to travel out from the central office in order to repair the pumps in rural areas.
TWO/5	REWARD	Something given to a worker to show appreciation for his good work or behaviour.
TWO/5	CAUSE OF THE PROBLEM	The person, or event or thing that made the problem happen.
TWO/7	SUBJECT OF THE TRAINING EVENT	The skill or job that you will teach when you do some training.
TWO/7	INSTRUCTIONS	The directions you must follow in order to do this exercise correctly.
TWO/7	FIND OUT WHAT IS WRONG FORM	A form is a paper with questions and spaces for writing the answers. This form helps a supervisor to answer questions about work problems in order to "find out what is wrong."

TWO/7	MASONRY CREW	The team, or gang or group of workers who do brick or stone work.
TWO/8	WARNING!	This word is used to tell the reader that the advice that follows is very important. It means "Be careful."
TWO/8	REAL PROBLEM	Something that is an actual, serious work problem for you. Not a made-up or imaginary problem.
TWO/8	ORGANIZATION	The agency, or Ministry, or Department that you work for.
TWO/8	BACKFILL CORRECTLY WHEN LAYING PIPES	Replace the dirt after putting pipes into a trench.
TWO/8	PROMOTE COMMUNITY PARTICIPATION	Help villagers take part in making decisions about the water system in their village; help villagers learn how water is related to health; help villagers plan how to get money for preventive maintenance and spare parts etc. etc.
TWO/9	RECEIVE ENCOURAGEMENT OR PRAISE	To be told good words about your work; to get approval and support.

CHAPTER THREE

THREE/1	WORKER'S PERFORMANCE	The work of the workers; what the worker does.
THREE/1	TASK	A task is a work duty. In most jobs, the worker has several tasks or duties.
THREE/1	TASK ANALYSIS	To analyse something is to study it. To do a Task Analysis is to study a task in order to understand all the steps or parts of the task.
THREE/1	STEPS	The parts of a task. The worker must do one action first, then the next action. Each action is a part of the task. It is a step of the task.
THREE/1	SUCCESS OR FAILURE OF TRAINING	If the training really helped the trainees, it was a success. If the training did not help the trainees do a better job, it was a failure.

THREE/1	PERFORMANCE OBJECTIVES	The goals of training; what the worker should be able to do at the end of training.
THREE/2	FREE OF TRASH	No rubbish or garbage around the pump.
THREE/2	EXCESS WATER	Waste water; extra water that is not drained away.
THREE/2	PROPER AUTHORITY	The person who should be told about pump breakdowns.
THREE/2	LUBRICATE PUMP ROD & HINGE PINS	Put oil or grease on pump parts that need it.
THREE/2	CHECK PLUNGER LEATHER	Look at and make sure that parts of the pump are in good condition.
THREE/2	CONCRETE SLAB	The concrete area around the pump; the apron.
THREE/3	DESCRIPTION	A written account or report telling about all the steps of a task.
THREE/4	POORLY TRAINED	The person has not had useful, effective training.
THREE/4	MEMORIZED	Learned and remembered.
THREE/4	CHECK THE PUMP	To keep a regular watch over the pump to collect certain kinds of information about it.
THREE/4	RECORD THE FUEL, OIL AND WATER USE	Keep a written account of information telling e.g., when and how much fuel, oil and water is used.
THREE/4	KEEP RECORDS	To regularly write the information about the fuel, oil and water in a book.
THREE/6	CONCRETE SLABS	The flat base for a pit latrine made from a material such as sand and stones with cement. (There may also be a concrete slab around the base of a pump. See definition for Page THREE/2.
THREE/6	CRACKED	Split slightly; broken.
THREE/6	EXPERT MASON	A person with a high level of skill and knowledge about working with stone or brick.

THREE/6	GRAVEL	A mixture of small stones and/or pieces of rock.
THREE/7	EFFICIENTLY	To do the steps with using too much time, too much materials, too much energy or too much expense.
THREE/8	SURVEYORS	People whose job is to measure horizontal distances and angles on the earth's surface.
THREE/8	SURVEYING	The measurement of horizontal distances, heights, directions and angles on the earth's surface. Usually done to determine construction or pipe laying sites.
THREE/8	DRAFTING	Making or drawing maps and mechanical drawings.
THREE/8	LETTERING	Doing the writing (making the letters) on maps or mechanical drawings.
THREE/8	STORES KEEPER	The person who is in charge of the materials and equipment of the water agency.
THREE/8	SUPPLIES	Things that the water agency uses. For example, mechanical supplies could be pipes, valves, spare parts etc. Office supplies could be paper, typewriter ribbons, pencils etc.
THREE/8	RECEIVING AND RECORDING SUPPLIES	The tasks of accepting new materials and supplies and writing down information about the supplies, e.g., how many items arrived; how much they cost etc.
THREE/9	ARTICLES	Thing; items; materials.
THREE/9	DAMAGES	To damage means to break or to harm. Damages are items that are broken or are not perfect.
THREE/9	DAMAGE CLAIM FORMS	The papers on which the stores keeper writes and describes the damages.
THREE/9	STORES REGISTER	The book in which the stores keeper writes information about the size, the number etc. of the items received.
THREE/12	FIELD MAINTENANCE WORKER	Workers who have the job of travelling in rural areas and checking, maintaining and repairing water installations (e.g. pumps, stand posts, spring boxes etc.).

THREE/12	SPRING BOXES	The man-made structure that surrounds the mouth opening of a protected spring.
THREE/14	DIVERSION DRAINAGE DITCH	A long, narrow trench or channel in the ground. It is dug in order to catch surface water and keep it away from the spring area.
THREE/14	CHECK	Look for; look at.
THREE/14	EROSION	The wearing away of soil around the base of the spring box.
THREE/14	TURBIDITY	Muddiness or cloudiness of the water.
THREE/14	WATER TIGHT	Holding the water without any leaks.

CHAPTER FOUR

FOUR/1	SKILL	A task or action that uses the body, e.g. swimming, fixing broken pipes, maintaining pumps, etc.
FOUR/1	PROGRESS	Improvement; doing work better.
FOUR/2	RECIPE	Instructions that tell how to make or prepare food.
FOUR/2	OCCASIONALLY	Not often.
FOUR/2	CHLORINE RESIDUAL TEST & TURBIDITY TEST	Tests done to determine the amount of chlorine and cloudiness in water.
FOUR/3	PRINCIPLES OF LEARNING	Rules about how people learn.
FOUR/3	LOGICAL ORDER	A sequence which is reasonable; usually an order which tells first steps first, second step second, etc.
FOUR/3	REPEATS THE WORDS	The trainees say the words after the trainer. They do not have to think for themselves.
FOUR/4	ADVANTAGES	Benefits; things that make on-the-job training good.
FOUR/4	REAL CONDITIONS	The actual situations; the real problems of the job; not problems from a book.
FOUR/4	DISADVANTAGES	Unfavorable conditions; things that make on-the-job training not good.

FOUR/4	DEMONSTRATIONS	Doing a task so trainees can watch and see how the task should be done.
FOUR/5	FOREMEN	The people in charge of one part of a job; sometimes foremen are supervisors.
FOUR/5	REPORT FORM	A paper with blank spaces where the foremen must write the information that is asked for.
FOUR/5	COMPLETING THE FORM	Filling in the blanks by writing in the information asked for on the form.
FOUR/5	ENLARGED COPY	A large drawing of the form that can be used as an example to demonstrate to the workers how to complete the form.
FOUR/6	FORMAL OR INFORMAL	(See definition for Page ONE/3.)
FOUR/7	SURVEYORS & SURVEYING	(See definition for Page THREE/8.)
FOUR/8	ENCOURAGE	To use kind words and praise in order to help workers continue doing a good job.
FOUR/8	ADVICE	Helpful suggestions about how to do a better job.
FOUR/9	INTERRUPT	Stop the work; be a bother or nuisance or distraction to other workers.

CHAPTER FIVE

FIVE/1	LESSON PREPARATION	The activities a trainer does before teaching a lesson. The activities help the trainer to plan what to do during the lesson.
FIVE/1	TRAINING MATERIALS	Anything that helps people to learn. For example, books, pictures, posters, sample equipment, job aids, etc.
FIVE/1	AIDS TO LEARNING	Things that make learning easier for the trainee.
FIVE/1	LEADING DISCUSSIONS	Being in charge of a discussion. Keeping the discussion on the correct subject.
FIVE/1	PRINTED INFORMATION	Materials that are prepared before the training and a copy given to each trainee. It may be words, pictures or diagrams.

FIVE/1	CHARTS & DIAGRAMS	Visual representations of information in the form of graphs or tables. A drawing or outline that helps to explain something.
FIVE/2	DISCOURAGED	Feeling almost hopeless; feeling sad about the training; feeling that maybe he should stop training.
FIVE/2	PREVIOUS TECHNIQUES	The actions or methods that the masons used before the training.
FIVE/2	BORED	Not interested.
FIVE/2	FAILURE	Not successful; not having the results that George wanted.
FIVE/2	PERSONALITY	The character of a person; the way a person talks, thinks, behaves with other people.
FIVE/2	TECHNIQUES	Special methods that George should use in order to train correctly.
FIVE/5	DISCUSSIONS SHOULD BE GUIDED	You should have a plan for the discussion. You should know in advance what subjects you want the trainees to talk about; what important points should be mentioned, etc.
FIVE/6	EMPHASIZE IMPORTANT POINTS	Give special notice to the most important parts of the demonstration. Talk more about them; stress them.
FIVE/6	TECHNICAL TERMS	Words that explain the equipment or the techniques used in the demonstration.
FIVE/6	NECESSARY SAFETY PRECAUTIONS	Precautions are actions taken in order to prevent a problem. Safety precautions are those actions that a careful worker does to make sure that he will not injure himself and other workers or harm the equipment.
FIVE/7	PRAISE SUCCESS AND CORRECT MISTAKES	Tell the workers when they do good work and show them how to do a task correctly if they do it wrong.
FIVE/7	BE PATIENT	Be kind and understanding. Let the workers take the time they need to do the work correctly. (NOTE: <u>patient</u> in this sentence does not mean the same as the word, <u>patient</u> on page TWO/1, which meant sick person.)

FIVE/7	HINTS	Suggestions; ideas about how to give good training.
FIVE/10	GREASE A WELL MOTOR BEARING	To oil a part (a bearing) of a motor for a well. A bearing reduces friction between moving and non-moving parts of the motor. SPECIAL NOTE: Pages FIVE/11, 12 and 13 are a sample lesson plan for teaching a trainee how to grease a bearing in a motor for a well. The lesson plan contains many technical words. It is suggested that the translator work closely with a mechanic who understands how to grease a bearing. The mechanic will be able to describe the procedure and use the words in your local language.
FIVE/10	COLUMNS	The vertical (up and down) sections of the lesson plan.

CHAPTER SIX

SIX/1	LASTING EFFECT	A change (an improvement) in the worker's skills that will continue a long time.
SIX/1	EVALUATION	A test to show if the trainee learned to do something better. (See also definitions on page SIX/2).
SIX/2	SHALLOW WELL CONSTRUCTION SKILLS	Those skills that are used in the construction of a shallow well.
SIX/2	DISCOURAGED	Feeling almost hopeless; unhappy; feeling that maybe he should stop giving training.
SIX/3	ENCOURAGE	Approve of the new skills; make it easy for the worker to use the new skills; tell the worker good things about his work.

SIX/3	WORK HABIT	The normal, regular way of doing the work. The way the work is always done.
SIX/3	FREQUENT OBSERVATION AND FEEDBACK	Watching the workers often and telling them how they are doing and how they can do better work.
SIX/3	REGULARLY ON THE JOB	Doing the task habitually; always doing the new task well as a habit.
SIX/3	ASSIGNED TO DO THE TASK	Told to do the work that requires the new skill. For example, if a man has learned the skills of surveying, he should be given surveying work on the job. He should not be given office work or vehicle maintenance work.
SIX/3	PROPER WORK SITUATION	(Similar to the definition above) A job that uses the new skill.
SIX/4	QUESTIONNAIRE	A printed form containing a set of questions. Used to collect information about the training.
SIX/6	CHANGE THE BEHAVIOUR OF THE WORKER	Change the actions of the worker so that he does a better job.
SIX/6	CONTINUED FEEDBACK AND ENCOURAGEMENT	Giving feedback (see SIX/3) and encouragement (see SIX/3) regularly for a long period of time.

CHAPTER SEVEN

SEVEN/1	FINAL PREPARATION	The last activities a trainer does before he gives training.
SEVEN/1	PEOPLE WHO WILL BE INVOLVED	All the people who will in some way be effected by the training e.g. the trainees' supervisors, the water agency manager, the trainees, the people who have the equipment or tools you will need for demonstrations, the people who prepare food and drinks, the people in charge of transportation, etc.

SEVEN/1	UPGRADE THEIR SKILLS	To make their skills better. The mechanics already had some skills. George wanted to teach them to do better.
SEVEN/3	CONVENIENT	Suitable; Okay.

REFERENCES

NOTE: The following references are extracted from the WASH Technical Report No.22, "Human Resource Development, a Selected and Annotated Bibliography for use in the Water Supply and Sanitation Sector".

BOYDELL, T.H. (1981) A guide to Job Analysis, BACIE, London.

SUBJECT: Job Analysis

COMMENTS: This volume is very readable, usable and relevant.

COST: \$6.00

SOURCE: British Association for Commercial and
Industrial Education Publications Sales
Department
16 Park Crescent
London W1N 4AP, ENGLAND

COON, HERBERT L. (1982) Instructional Resources Monograph Series: Improving Instruction, Environmental Protection Agency Instructional Resources Center, Columbus, Ohio.

SUBJECT: This book is written in outline form and the text is a good checklist for adult instructional planning and teaching. The examples are detailed and varied in content.

COMMENTS: Principles of adult learning, instructional planning/teaching.

COST: \$5.50

SOURCE: Environmental Protection Agency
Instructional Resources Center
EPA Information Dissemination Project
Ohio State University
1200 Chambers Road
Columbus, Ohio 43212 U.S.A.

DONALDSON, LES and SCANNEL, EDWARD E. (1980) Human Resource Development: The New Trainer's Guide, University Associates Publishers, San Diego, Cal.

SUBJECT: Basic skills for training in sales, management, technical training.

COMMENTS: Not reviewed

COST: \$13.50

SOURCE: University Associates
8517 Production Ave.
P.O. Box 26240
San Diego, California 92126 U.S.A.