AUSTRALIAN EMERGENCY
MANUAL

TRAINING MANAGEMENT

Natural Disasters Organisation

First Published 1992

ISBN 0 642 18005 9

Published by the Natural Disasters Organisation

Typeset by the Directorate of Departmental Publications, Department of Defence.

Printed in Australia by National Capital Printing, Fyshwick ACT

THE AUSTRALIAN EMERGENCY MANUAL SERIES

(Published or Proposed titles in approximate order of production priority)

AEM - DISASTER RESCUE (3rd edition)
AEM - LAND SEARCH OPERATIONS (incorporating Urban Search)
AEM - FLOOD RESCUE BOAT OPERATION
AEM - STORM DAMAGE OPERATIONS
AEM - COMMUNITY EMERGENCY PLANNING GUIDE
AEM - COMMUNICATIONS
AEM - ROAD ACCIDENT RESCUE
AEM - CHAIN SAW OPERATION
AEM - TRAINING MANAGEMENT
AEM - VERTICAL RESCUE
AEM - INSTRUCTIONAL TECHNIQUES
AEM - FOUR WHEEL DRIVE VEHICLE OPERATION
AEM - EMERGENCY OPERATIONS CENTRE MANAGEMENT
AEM - MAP READING AND NAVIGATION
AEM - EVACUATION PROCEDURES
AEM - LEADERSHIP SKILLS
AEM - DISASTER RECOVERY AND RELIEF
AEM - DISASTER MEDICINE

NB. Manuals will be issued subject to availability and guidelines in the latter paragraphs of the foreword, page v.

AMENDMENT LIST

Amendment		Effected	
No.	Date	Signature	Date

FOREWORD

THE AUSTRALIAN EMERGENCY MANUAL - TRAINING MANAGEMENT IS DESIGNED TO PROVIDE A COMMON DOCTRINE FOR THE DESIGN AND MANAGEMENT OF TRAINING FOR ALL AGENCIES INVOLVED IN EMERGENCY MANAGEMENT THROUGHOUT AUSTRALIA.

THIS MANUAL HAS BEEN DEVELOPED UNDER THE OVERSIGHT OF A NATIONAL PLANNING' DEVELOPMENT COMMITTEE OF TRAINING OFFICERS REPRESENTING ALL STATES AND TERRITORIES. THE COMMITTEE WAS INITIATED AND SPONSORED BY THE NATURAL DISASTERS ORGANISATION.

INFORMATION CONTAINED IN THIS MANUAL HAS BEEN DRAWN FROM A NUMBER OF DOCUMENTS PRODUCED BY VARIOUS STATES AND TERRITORIES AND ADAPTED TO REFLECT A NATIONAL STRATEGY.

AS SITUATIONS CHANGE AND IMPROVED TECHNIQUES EMERGE, THE MANUAL WILL BE UPDATED AND AMENDED BY THE NATIONAL WORKING PARTY.

PROPOSED CHANGES SHOULD BE FORWARDED TO THE DIRECTOR GENERAL, NATURAL DISASTERS ORGANISATION, AT THE ADDRESS SHOWN BELOW, THROUGH THE RESPECTIVE STATE/TERRITORY COUNTER DISASTER ORGANISATION.

THIS PUBLICATION IS PROVIDED FREE OF CHARGE TO APPROVED AUSTRALIAN ORGANISATIONS WHO MAY OBTAIN COPIES THROUGH THEIR STATE OR TERRITORY EMERGENCY SERVICE HEADQUARTERS WHICH MAINTAINS A DISTRIBUTION/AMENDMENT REGISTER

TO SUPPORT THE INTERNATIONAL DECADE FOR NATURAL DISASTER REDUCTION, THE AUSTRALIAN GOVERNMENT WILL ALLOW APPROVED OVERSEAS ORGANISATIONS TO REPRODUCE THE PUBLICATION WITH ACKNOWLEDGMENT BUT WITHOUT PAYMENT OF COPYRIGHT FEES. MANUALS MAY BE SUPPLIED TO OTHER AUSTRALIAN OR OVERSEAS REQUESTERS UPON PAYMENT OF HANDLING/SHIPPING COSTS (COVERING AMENDMENTS) ENQUIRIES AS NOTED BELOW

CONSIDERATION WILL BE GIVEN TO REQUESTS FROM DEVELOPING COUNTRIES FOR MULTIPLE COPIES WITHOUT CHARGE.

ENQUIRIES SHOULD BE SENT TO THE DIRECTOR GENERAL, NATURAL DISASTERS ORGANISATION, PO BOX 1020, DICKSON, ACT 2602, AUSTRALIA.

CONTENTS

CHAPTER ONE

THE LEARNING PROCESS

WHAT IS LEARNING?

1 01 Learning is any **change in behaviour** resulting from **experience**. We experience new things everyday of our lives. Learning is a natural outcome of these daily experiences As a result of experience, we develop new or better ways of doing things (skills), gain additional awareness (knowledge) and develop new feelings (attitudes) With application (further experience), this change in behaviour becomes relatively permanent

1.02 TRAINING

This provides learning experiences in a structured and systematic way so that skills, knowledge and attitudes can be developed more quickly and effectively. If training is effective, a person will be able to display the new or improved skills, additional knowledge, or a development of attitude.

1.03 CHANGE IN BEHAVIOUR

This can therefore be observed and measured so that we can objectively show that personal development has occurred In fact, learning must be able to be effectively demonstrated and result in some measurable change in the person's·

a **Skill** - where the person becomes more proficient in performing certain physical or mental tasks, or

b. **Knowledge** - acquiring new ideas, or re-organising those presently held, or

c. **Attitude** - acquiring a different appreciation or feeling about a subject, or any combination of these

HOW ADULTS LEARN

1.04 INFORMATION INLETS

We learn through experience We experience through sensations produced by stimuli received from outside our body 'Information' comes into contact with various **inlets** of our body - the eyes, ears, nose, tongue and skin - causing sensations which are transmitted to the brain.

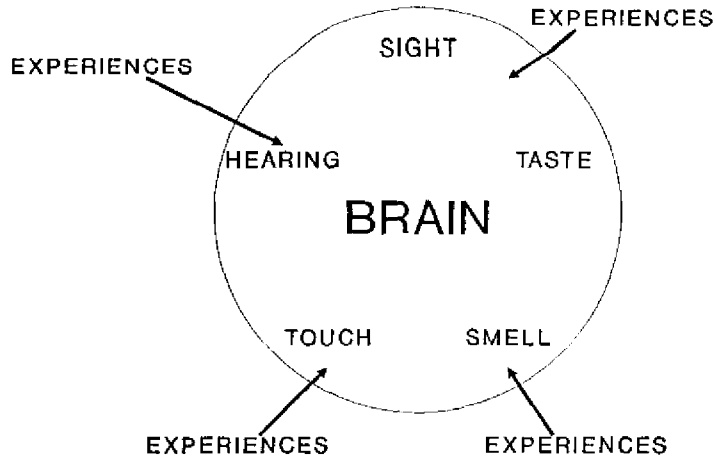

Figure 1:1

1.05 PERFORMANCE OUTLETS

This is the process by which information reaches the brain, but it does not mean that this information has been learnt. Learning has to be demonstrated by the ability to state or write something, or to perform a physical skill. This ability is indicated by the use of two **outlets** - the mouth and the hands.

1.06 INLET/OUTLET CHARACTERISTICS

The main characteristics of these learning inlets and outlets are:

Ear (inlet)

* Hearing is selective - we can select a noise from all those around us and listen to it, to the exclusion of others.

* Thus, instruction without learning is possible because you cannot readily detect if a person has excluded your voice.

* You are more likely to retain information which you hear first and last, to the exclusion of much of the material in between.

Eye (inlet)

* The brain can receive direct images from the eyes. There is no need to interpret and translate material into mental concepts as in hearing.

* Eyes are unilateral (one direction) and can focus on all or part of an object.

* Again, although information will reach the brain, it will not always be learnt. People tend to see only what they expect, or wish, to see - not necessarily what is actually there.

Nose (inlet)

* Not commonly used instructionally, except in specialist fields such as chemistry. May be applied to rescue training eg the recognition by smell of a particular type of leaking gas.

Mouth (inlet/outlet)

* Inlet for information - through taste; and an outlet - through speech.

* This outlet is a prime source of demonstrating how successful learning has been.

Hand (inlet/outlet)

* Learning is effected through touch and manipulation, providing the most effective skills instructional technique-learning by doing.

* Learning is easily demonstrated by the performance of the desired skill or by writing/drawing.

WHY ADULTS LEARN

1.07 SATISFYING NEEDS

The concept of need satisfaction (motivation) introduced by MASLOW would appear to be a significant force in the learning process. At the very least, it provides a sound theoretical basis for understanding why people want to learn. Before commencing a learning project, a person may expect to enjoy the reading, watching, practising and other learning activities It may also be expected that these activities will increase self-esteem, or will impress and please other people.

1.08 MOTIVATION

As learning proceeds, a person may actually experience some of the immediate benefits that were anticipated. Unexpected benefits may also occur. As the person becomes more realistic about the likely benefits flowing from future learning episodes, motivation for learning may increase.

1.09 MOTIVATIONAL FACTORS

Various aspects of the learning process may produce the pleasure, the self-esteem, or the impact on others Each of the following factors may add to the motivation of learners for beginning and continuing a learning project

a **Satisfying curiosity, puzzlement, or a question** - The feeling of positive pleasure or satisfaction of finding an answer. Feelings of mystery, ignorance, indecision, ambiguity and the resulting doubt or unhappiness, may be reduced.

b **Enjoyment from the content itself** - Finding the learning content interesting, fascinating, or stimulating.

c. **Enjoyment from practising the skill** - A feeling of accomplishment in progressing toward mastery of a skill.

d. **Activity of learning** - Feelings of pleasure self-esteem and impressing others may arise directly from the activity of learning.

e. **Learning successfully** - A person is pleased or 'feels good' through learning quickly, easily or successfully

f. **Completing unfinished learning** - A desire to finish certain learning activities once they have been started. This desire may develop into a strong commitment

g. **Aspects unrelated to learning** - Benefits usually arise from association with other people. Adults find that learning in a group provides opportunity for companionship, meeting new people, and making good friends (social needs).

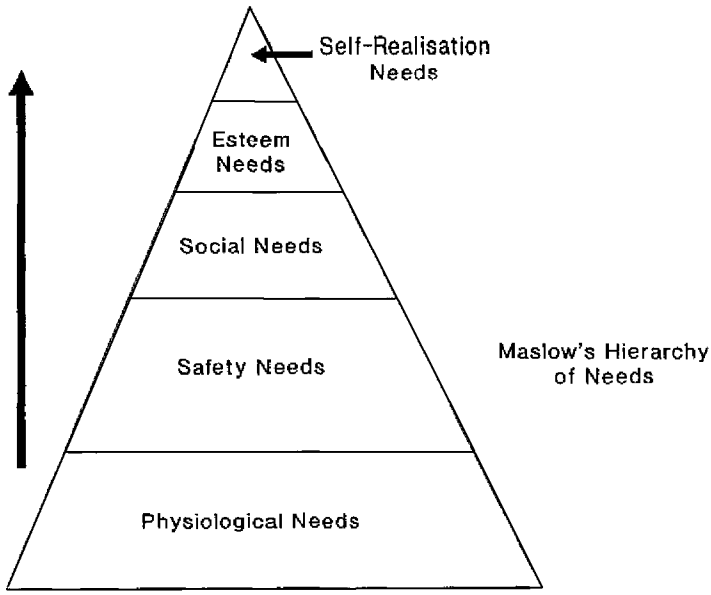

Figure 1:2

HOW CAN LEARNING BE SUPPORTED?

1.10 There is much that the trainer can do to support a person's motivation to want to learn. In fact, all trainers should accept, as a personal responsibility, the satisfaction of some of the trainees' personal needs through the training that they provide.

1.11 **PHYSIOLOGICAL AND SAFETY NEEDS**

Most trainees would be generally satisfied in these lower order needs. However, the provision of a comfortable training environment with good seating, circulating air, appropriate temperature and attention to other physiological factors is important.

1.12 When trainees first arrive in an instructional situation, they may drop into the safety need level, due to fear or anxiety about what they are going to be required to do. Course joining instructions, briefings and pre-course introductory sessions can be designed to remove this anxiety.

1.13 The provision of a non-threatening training environment is also aimed at reducing anxiety and enabling trainees to concentrate on achieving their objectives and satisfying esteem level needs.

1.14 SOCIAL NEEDS

If trainees are contented and accepted within the trainee group, and if they are able to positively relate to the instructional staff, it is likely that their immediate social needs will be satisfied. Instructors need to be aware of any disruptive behaviour, as this could mean these needs remain unsatisfied. Simple actions such as re-allocating seating arrangements, or syndicate groupings, may be sufficient to restore harmony and balance.

1.15 ESTEEM NEEDS

These are the most important needs in the training sense - self-esteem, job satisfaction, achievement, and recognition of achievement by the peer group.

1.16 ACCOMPLISHMENT AND RECOGNITION

If an instructional task is presented in performance terms and the trainee achieves a sense of accomplishment and recognition after the task is well done, it is likely that the immediate esteem needs will be satisfied. Reinforcement is important here. If the instructor openly recognises and commends good effort, motivation towards further effort should result.

1.17 SELF-REALISATION NEEDS

The need to make the best of oneself, to realise ones fullest potential in a given situation, the need for totally creative activity, to be the best at whatever one does. The satisfaction of these needs is probably beyond the scope of most trainers in the classroom situation. This generally appears in well-settled, mature adults. The successful satisfaction of esteem level needs may well pave the way for these top-level needs to also be satisfied.

SUMMARY

1.18 ENHANCED LEARNING

Adult learning is enhanced when

a. the learner desires to learn,

b the learning outcomes are immediately required by the learner;

c. learning objectives are clear and explicit;

d. the training process makes use of the experiences of the learner,

e the learning environment is supportive and non-threatening,

f the learner actively participates in the process;

g the learner is involved in planning the learning situation,

h frequent repetition is provided when learning a skill,

i. success is reinforced (rewarded),

j. feedback is provided so that learners have information on their rate of progress toward learning objectives;

k learning programs are sequenced into logical steps, and progress from the known to the unknown;

l a variety of training methods and media is used;

m. the trainer displays enthusiasm and interest; and

n the learner is a member of a small group engaged in a common learning experience

1.19 PARTICIPATION/COOPERATION

Trainers who take into account that they are dealing with adult learners, are likely to view themselves as resource persons responsible for actively guiding the learners to the achievement of objectives They are likely to employ training techniques that provide a participative and cooperative climate with the learners, rather than adopt an authority oriented approach where the trainer is the one who matters most in a learning task

CHAPTER TWO

THE TRAINING CYCLE

THE SYSTEMS APPROACH TO TRAINING

2.01 The systems approach is a formalised method of planning and preparing training programs. It ensures that training resources are applied to identified training needs, and that time and effort are not expended on non-essential activities.

2.02 JOB COMPONENTS

The basic step in the systems approach to training establishes exactly what constitutes effective performance on the job. This is done by analysing the job - conducting a detailed examination of the components that make up a job, in order to identify the competencies (skills, knowledge, attitudes) required by the job occupant to perform it to a designated standard. These competencies provide the means by which training objectives, upon which a training program is based, are designed.

2.03 FIVE PHASES

The systems approach to training can be summarised by the table below.

PHASE	ACTIVITIES	OUTPUT
Phase 1: Analyse Training Need	a The job is analysed and task performances, together with task conditions and standards, are listed b Training needs, and their priorities, are decided	a. A list of task performances, conditions and standards b A schedule of training needs and priorities
Phase 2: Design Training	Training is designed to suit the results of job analysis. Training objectives and tests are written and placed in logical sequence.	Sequenced set of training objectives and tests
Phase 3: Develop Instruction	a Instructional methods and media are chosen. b. Course program and content are compiled c The instruction is trialled (piloted) and amended until it is successful	A program of instruction which has been successfully trialled
Phase 4 Conduct Instruction.	a The course is conducted. b Tests are administered c Initial problems are remedied	a Trainees who have achieved course objectives b A course modified as necessary

Phase 5: Validate Training	Problem areas in Phases 1 to 4 are identified by analysing the following: a. Efficiency - Whether best use was made of resources to achieve training objectives. b. Effectiveness - The relevance of the training received to the requirements of the job. Training is modified or updated as necessary.	Validated and successful training.

Figure 2:1
The Systems Approach to Training

THE TRAINING CYCLE

2.04 The training cycle (Figure 2.2) is a simplified graphic model of the concepts behind the systems approach to training. Its component parts are not new - they describe the activities listed for each of the five phases in Figure 2:1. However, as training becomes more complex, it is valuable to view the components as interdependent parts of a total training system.

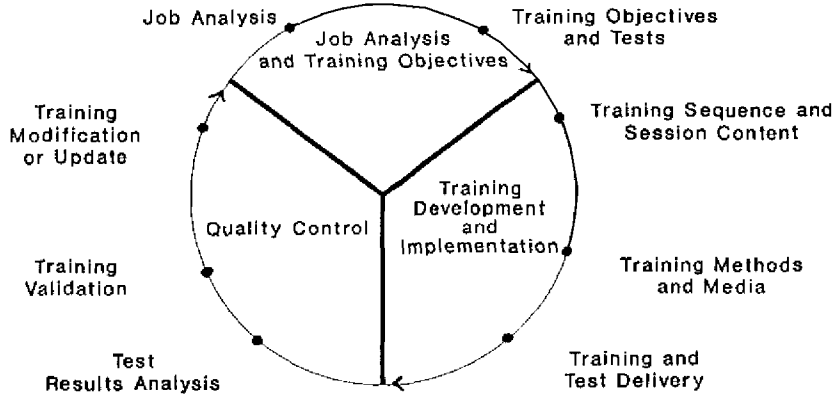

Figure 2:2
The Training Cycle

2.05 PERPETUAL FLOW

It is stressed that the training cycle is never ending. It represents a circular flow of essential components - training needs and objectives; training design; training delivery and testing; feedback, evaluation and modification - which must continue until all training objectives are being reached at the pre-determined standard.

As each cycle is satisfactorily completed, new or higher training needs will be revealed and the entire sequence starts again.

2.06 SUMMARY

The following detailed steps comprise the training cycle:

a. Conduct job/task analysis.

b. Identify training needs.

c. Write training objectives.

d. Design tests of training.

e. Design and sequence course content.

f. Select training methods and media.

g. Design training session plans.

h. Conduct training.

i. Administer training tests.

j. Analyse training test results.

k. Evaluate training efficiency/effectiveness.

l. Modify or update training (if necessary).

m. Identify new training needs.

n. Recommence the cycle.

The individual steps of the training cycle will be examined in detail in the remaining Chapters of this Manual.

CHAPTER THREE

IDENTIFYING TRAINING NEEDS

REASONS FOR IDENTIFYING AND ANALYSING TRAINING NEEDS

3 01 It is necessary that trainers are skilled in the identification and analysis of training needs - the first and most important step in training development.

3.02 BENEFITS

This skill will enable trainers to:

a make training relevant to the requirements and conditions of the job,

b make training realistic,

c. make training cost-effective, and

d make training more objective

RELATIONSHIP OF JOB PERFORMANCE TO TRAINING NEEDS

People are given training to enable them to effectively perform a job To perform their job, people have to successfully complete a series of tasks.

3.03 JOB

A Job is a unit of work, consisting of task activities which have been grouped together formally so that they can be performed by an individual or team

3.04 TASK

A Task is a major activity of work, or a combination of activities, by which a specific result, or work objective, is achieved.

3.05 If training is effective, it will give trainees sufficient skill, knowledge and attitude/s to enable them to perform their tasks (hence their job) to the required standard. For an example of a **job structure**, see Annex A to this Chapter

3.06 TRAINING NEEDS

These then are statements of that skill, knowledge and attitude/s required by trainees for effective job performance **and which they do not already possess**

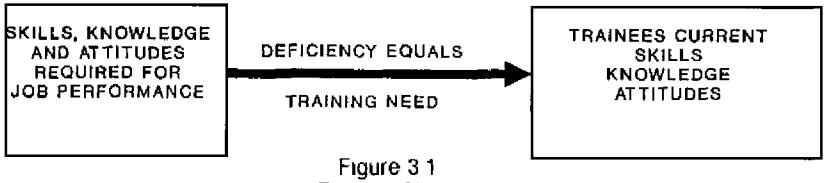

Figure 3 1
Training Need

3.07 JOB ANALYSIS

This is a process of systematically determining and recording the facts about the components of a job. The specific facts sought by the process are

a. a description of the job - what does the job seek to achieve (outcome);

b the major, routine and occasional tasks, including a rating of those tasks having the highest and/or most critical functions (see para 3 06 for task analysis process);

c the person specification - what skills, knowledge and attitudes are required, together with other physical and psychological attributes, to perform the job to the required standard,

d. the conditions under which each task is performed, eg teamwork, danger, monotony, indoors/outdoors etc;

e. the required work standards - expressed in terms of performance level, eg speed, accuracy, number,

f the responsibilities/accountabilities invested in the job, and

g. aspects of the job which cause difficulties and/or dislikes

COLLECTING JOB ANALYSIS DATA

3.08 COLLECTION METHODS

The methods normally used for collecting job analysis data are:

a observation of people performing job/tasks· *

b. interviews with people performing job/tasks; *

c questionnaire survey of workers and supervisors,

d group discussion with workers and supervisors, and

e. expert panel discussions

* (Methods 'a.' and 'b.' are usually combined.)

All of these methods have a common purpose to obtain complete and objective job information. Usually, a principal method is selected and its results supported or amplified by subsidiary methods.

TASK ANALYSIS PROCESS

3.09 A task analysis is performed by the following process

a List all steps involved in a task, in terms of what the person/team does when performing each step. A step may involve performing a physical or mental skill, applying knowledge, displaying an attitude, or any combination of these.

b Sequence these steps in the strict order in which they must occur.

c. Highlight those steps which are critical to effective (and safe) task performance.

d Identify the skills, knowledge and attitudes required for each critical step

e. Identify the conditions under which the steps have to be performed.

f Where practical, identify a realistic standard for each critical step.

g Repeat the process for each task that the job comprises

By compiling the list of task steps in terms of what the person/team actually **does**, we are describing behaviour which can be readily **observed**. By adding standards, we make the observable task behaviour **measurable**

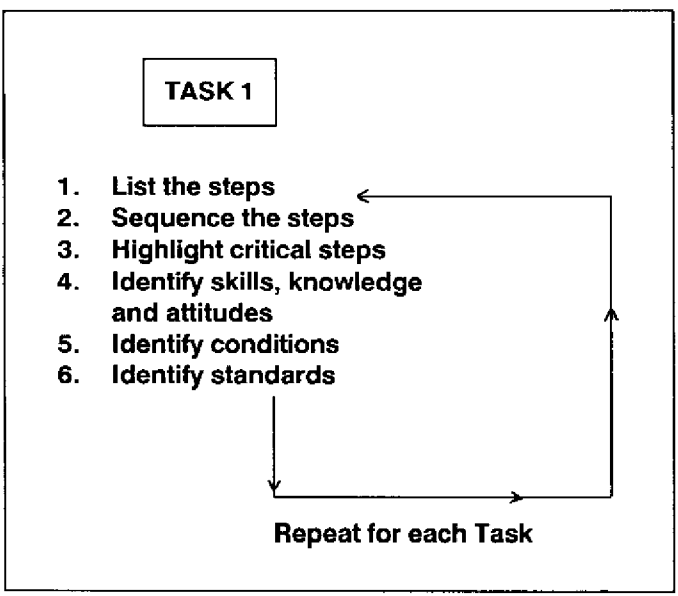

Figure 3:2
Task Analysis Process

IDENTIFYING AND ANALYSING TRAINING NEEDS

3.10 TRAINING SOLUTION

Using the results of job analysis, the skills, knowledge and attitudes currently possessed by a person/team can be directly compared with those required to successfully perform the job. If a deficiency in skill, knowledge and/or attitude exists, then that deficiency represents the training need. That need can then be used as the basis for developing a training solution.

3.11 NON-TRAINING SOLUTION

It must be stressed, however, that only those job performance problems, where such a deficiency exists, can benefit from a training solution. Where a person/team already has the required competencies to perform the job but, for some other reason, is not providing effective job performance, then a training solution is not appropriate. A non-training solution must be sought in these cases.

3.12 REVEALING TRAINING NEEDS

More specifically, a need for training may be revealed through the existence of the following factors.

a. Low performance levels being displayed

b. Inappropriate behaviour being displayed

c. Continued mistakes and breakdowns in work processes

d. Increase in accidents

e. Introduction of organisational change.

SUMMARY

3.13 The effective identification and analysis of training needs is an essential starting point for the design of training programs. If this is conducted properly, then the remaining steps in the design process can be taken in a logical and systematic way.

JOB STRUCTURE

Figure 3A.1 shows the structure of a job.

As an example

The job - **Driver**

includes the:

a **duty** - perform user maintenance;

b **task** - perform daily maintenance check;

c **task step** - check oil level,

which requires.

(1) **knowledge** - what to check,

(2) **skill** - execution of check,

(3) **attitude** - values need for user maintenance;

to pre-set **standards**

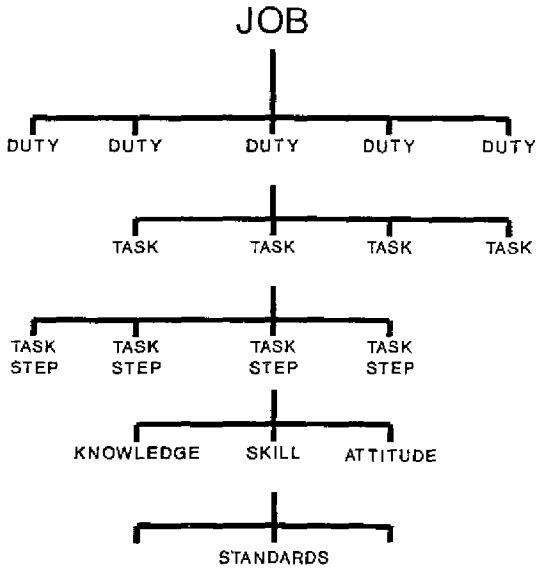

Figure 3A 1
The Structure of a Job