CHAPTER FOUR

WRITING TRAINING OBJECTIVES

WHAT IS A TRAINING OBJECTIVE?

4.01 In Chapter 3, we determined that people are given training to enable them to perform a job/task. If this training is successful, it will provide them with sufficient skills and knowledge, together with the required attitudes, to perform their job in the way the organisation wishes it to be performed.

4.02 EXISTENCE OF TRAINING NEED

It is assumed that a training need does, in fact, exist and it has been correctly identified - that there are skills, areas of knowledge, and attitudes required for effective job performance, **which the job performers do not already possess.** After all, if the job performers do possess the required skills, knowledge and attitudes, there is no training need. There may well be a performance problem, but it is unlikely that further training will solve it.

4.03 WHAT WILL TRAINING ACHIEVE

Once a specific training need has been identified, the initial problem to be faced by the trainer is to prepare statements which describe, as clearly as possible, the end result that training will achieve in providing those skills, knowledge or attitudes which trainees currently lack In other words, the trainer will have to define what trainees need to know or be able to do, how well they must know or do it, and the circumstances (conditions) under which the knowledge or skill is to be used The statements which result are termed training objectives.

DEFINITION

4.04 We can now define 'training objective' as·

'a description of a performance we want learners to be able to exhibit before we consider them competent.'

4.05 IMPORTANT FACTORS

The following important points arise from this definition:

a. An objective is learner oriented - it describes what the learner will be able to do, not what the trainer is going to do.

b. It is a statement of the end result of instruction, rather than the processes used in reaching this end

c Learners are expected to experience a change in behaviour through instruction - to be able to do something they could not do before.

d. This change in behaviour must be observable to others

e The extent of this change must be measurable - able to be compared with a pre-determined standard of competence.

A training objective therefore defines what the learner is expected to be able to do, how it is to be done, and how well

WHY DO WE NEED TRAINING OBJECTIVES?

4.06 Properly constructed training objectives provide a number of advantages to the training manager, the instructor and the learner as follows:

a. Learners will know precisely what is expected of them and will be more likely to invest their energy in pursuit of the training goal.

b. Instructors will also know what is expected of them by being provided with clear statements of the desired results to be produced by their instruction.

c. Objectives provide the only sound basis for the selection of instructional content, material and method.

d. They also provide the primary basis for assessing and evaluating the success of instruction.

e. Clear statements of objectives can serve as validation of existing performance standards, or as a means of getting standards set where none have previously existed, or of changing standards which are shown to be false.

f. Management has a much greater appreciation of what it is getting for its training investment when it has clear statements of training outcomes.

CHARACTERISTICS OF A TRAINING OBJECTIVE

4.07 LEARNER PERFORMANCE

The first characteristic of a training objective is that it is stated in terms of what the learner will be able to do, rather than what the instructor will do. In other words, it describes **learner performance**.

4.08 Stating objectives in terms of learner performance, rather than instructor performance, helps both the instructor and the learner. It forces the instructor to think more carefully about learner needs and capabilities and it lets learners know precisely what the instructor expects of them.

4.09 MEASURABLE BEHAVIOUR

The second, and most important, characteristic of the training objective is that it is stated in terms of some physical performance by learners, rather than what they might know, feel or believe. Training objectives are always stated by an expression of **measurable behaviour**. Why? Because an instructor cannot 'see' or observe what learners 'know', he or she can only observe how learners demonstrate their knowledge in some physical way eg by 'stating' or 'writing'.

4.10 PERFORMANCE CONDITIONS

Training objectives have a third characteristic. They state the **conditions** under which the desired performance will be demonstrated by learners. Conditions describe the situation or environment in which this performance is to take place. Conditions include such factors as whether the learner's performance will be oral or written; whether the learner will be allowed to use references, such as notes or handbooks; what materials or tools may be used or denied; whether the learner is to work alone or as part of a team etc.

4.11 PERFORMANCE STANDARDS

The fourth and final characteristic of a training objective is that it states the measure (standard) against which the actual performance exhibited by the learner will be assessed. It defines **criteria** for judging the quality of the learner's performance. The term 'criteria' means the **minimum standards** which are acceptable for satisfactory performance.

4.12 CRITERIA

Common ways of describing criteria of acceptable performance:

a. **Speed** - How quickly (or slowly) must the learner perform?

b **Accuracy** - How exact must the performance be?

c. **Quantity** - How many must the learner process or generate?

d **Quality** - How much deviation from a pre-set standard is acceptable?

Criteria, like conditions, must be written to match the capabilities of learners and the particular skills they need to learn. There is little point, for example, in setting a standard so high that only a few learners can achieve it, unless there is a very good reason for doing so.

4.13 REALISTIC PERFORMANCE CRITERIA

Criteria also need to be **realistic** in terms of the end performance required of learners. There is little point, for example, in requiring learners to correctly dial six digits of a telephone number when seven digits are needed to successfully place a call.

TYPES OF OBJECTIVES

4.14 'Training Objectives' is a generic term embracing three types which are:

a terminal objectives,

b enabling objectives; and

c instructional objectives.

4.15 OBJECTIVE RELATIONSHIPS

The relationship between the three types can be summarised as follows:

a **Terminal Objective** - A statement of what a trainee must be able to do at the end of a course of instruction

b. **Enabling Objective** - A statement of what a trainee must be able to do to achieve a desired terminal objective. It specifies the knowledge, skills and attitude that are necessary.

c. **Instructional Objective** - A statement of what a trainee must be able to do at the end of a period of instruction. One or more instructional objectives may constitute a training period.

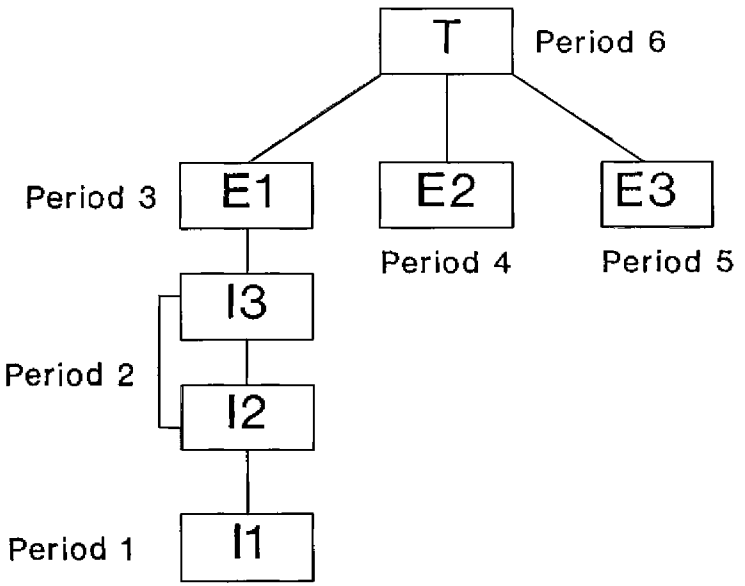

Figure 4:1
Hierarchy of Training Objectives

CONSTRUCTING TRAINING OBJECTIVES

4.16 The easiest way of constructing training objectives, which contain all four of the characteristics described above, is to use a matrix format with separate columns for performance, conditions and standards. Make sure that all statements in the performance column commence with an active (doing) verb which describes exactly what the learner is required to do. Figure 4:2 gives examples of objectives for developing skills, knowledge and attitudes.

PERFORMANCE	CONDITIONS	STANDARD
DEVELOPING SKILLS:		
After training, the trainee will be able to:		
ADD 6% sales tax on all sales	by checking a chart on the cash register	exactly 6%
TYPE a 600 word report	using a standard electric typewriter	at a speed of 30 wpm and without error
DEVELOPING KNOWLEDGE:		
After training the trainee will be able to:		
STATE the corporate objectives	as they are listed on page 2 of the strategic plan	correctly.
DESCRIBE the steps in the process of training design	without using notes	the steps are to be described correctly, and in proper sequence.
DEVELOPING ATTITUDES:		
After training the trainee will be able to:		
EXPRESS concern at the fact that the customer is unhappy	no matter how angry or abusive the customer becomes	with all irate customers and by brief (fewer than ten words) apology
ASK open questions	whenever probing for feelings	which cannot be answered 'yes' or 'no' or with facts.

Figure 4:2
Constructive Training Objectives

Having constructed a training objective in this way, it is a simple step to rewrite it into a narrative form:

'After training, the trainee will be able to express concern at the fact that the customer is unhappy, with all irate customers and by brief (fewer than ten words) apology, no matter how angry or abusive the customer becomes'.

SUMMARY

4.17 OBJECTIVES CHARACTERISTICS

Effective training objectives will include all four of the characteristics outlined in this Chapter:

a. Training objectives are stated in terms of **what the learner will be able to do**, rather than what the instructor will do.

b. Training objectives are stated in terms of **measurable or observable behaviour.**

c Training objectives state the **conditions** under which the desired performance will be demonstrated

d Training objectives prescribed the **criteria**, or minimum standards of performance, by which the quality of the learner's performance will be judged

4.18 OBJECTIVE TESTING/REVISION

However, objectives still will serve no useful purpose unless they are also written to match the learner's capacity to achieve them Training objectives must be carefully written, tested against actual learner performance and, if necessary, revised

4.19 Remember always that training objectives are learner oriented; they must reflect a realistic view of what a learner at a particular experience/maturity level can be expected to achieve.

CHAPTER FIVE

DESIGNING TESTS OF TRAINING

INTRODUCTION

5.01 We have now reached the final step in the initial quadrant of the training cycle - Job Analysis and Derived Training Objectives - as shown in Figure 5 1 This step is concerned with designing tests of training performance

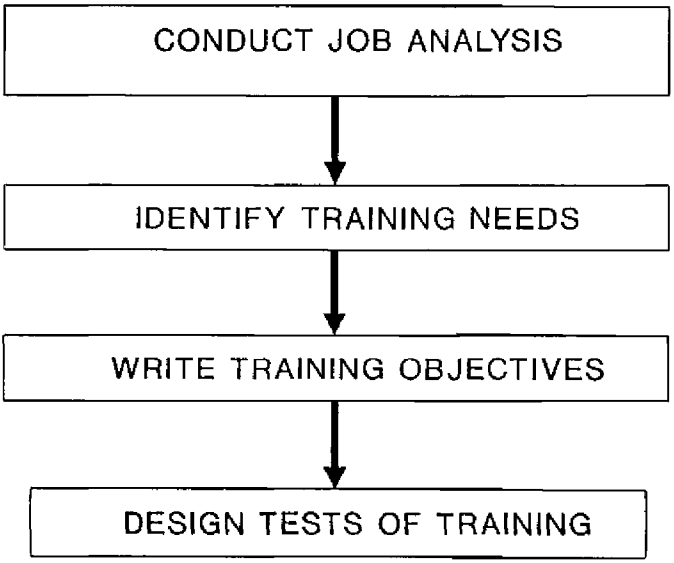

Figure 5 1
Job Analysis and Training Objectives

REASONS FOR TESTS OF TRAINING

5.02 SHORT-TERM FEEDBACK

In general, tests are used to provide continuous short-term feedback on the extent to which training is successful in achieving training objectives

5.03 SPECIFIC INFORMATION

Tests are designed to give specific information to enable the instructor/trainer to

a. determine whether progressive learning is taking place,

b determine whether performance standards as defined by training objectives are being reached,

c. monitor aspects of training which are providing difficulty for trainees;

d. motivate the desire for further learning through reinforcement of trainee achievement; and

e. assess overall effectiveness of trainee performance

WHAT CAN BE TESTED?

5.04 SPECIFICALLY

a. Performance of skills

b Acquisition of knowledge

c. Development of trainee attitude.

5.05 GENERALLY

a. Achievement of training objectives

RELATIONSHIP OF TESTS TO TRAINING OBJECTIVES

5.06 Tests must be **directly related** to training objectives Specifically, they must be consistent with the desired indicator of performance (active verb) and the level of performance (standards), both of which should have been clearly defined by objectives.

5.07 ANALYSIS

There is a need for tests to be analysed (piloted) before being used to make sure this relationship with training objectives does exist.

5.08 CRITERIA

Tests also need to be able to meet the following criteria:

a. **Validity** - Does the test measure what it is intended to measure?

b **Reliability** - Will the test give consistent results over time and between different test assessors?

c. **Objectivity** - Would a group of test assessors agree on test results?

d **Comprehensiveness** - Is the range of trainee performance, as defined by training objectives, effectively assessed?

e **Discrimination** - Will the test distinguish between capable trainees and those less capable?

f. **Useability** - What resources (people/material) does the test demand and are these reasonable?

5.09 TESTS RE-ASSESSMENT

When tests are given, if consistent and general high or low results are attained, it is necessary to re-assess the tests in relation to the requirements of training objectives. If the training objectives do not define clearly what is to be tested - how trainees will demonstrate competency, and to what standard - then the objectives are deficient and will need to be re-assessed and adjusted.

5.10 It should be stressed that if undesired results are obtained from training tests, it may not be the tests that are at fault. The training objectives themselves may set too low/high a standard, or even be unattainable.

TIMING OF TESTS

5.11 Tests may be used at various stages in the training process for various purposes.

5.12 PRE-TRAINING TEST

This determines the degree of skill/knowledge that each trainee has prior to training. It is also used to review pre-training performance standards, and to set the level of subject content.

5.13 ENTRY TEST

This determines whether prospective trainees have the degree of skill/knowledge to cope with the level of training to be provided. It is also used to exclude from training those applicants with little or no hope of achieving training objectives.

5.14 PROGRESSIVE CRITERION TESTS

This determines trainee progress at various stages during training. Trainees must satisfactorily complete each stage before progressing to the next.

5.15 POST-TRAINING TEST

This determines whether trainees have achieved training objectives and can perform the job. It is also used to obtain feedback on trainee competency at the conclusion of training (short-term), and the transfer of skills/knowledge to the job (long-term).

TYPES OF TESTS

5.16 At the outset, it must be stressed that testing measures trainee response of some type. This response may be written, verbal or practical (or some combination of these) as specified by training objectives. The type of test/s selected must be consistent with the desired trainee response.

5.17 PRACTICAL TESTS

These are a series of physical actions which are observed and recorded (measured) by the examiner. They are the most valid indicators of task performance, providing a direct measure of trainee competency. Their advantages and disadvantages are as follows:

a. The major advantage of practical tests is the ability to make them very closely related to the actual tasks on the job for which the person is being trained. The potential validity of the test is therefore increased - those who succeed in the test can do the task on-the-job.

b. The disadvantages of using practical tests are related to problems of their administration because:

(1) they are expensive in time and in instructional staff required to supervise them;

(2) they may involve extended use of, and possible damage to, expensive equipment;

(3) they are difficult to administer;

(4) the marking of practical tests requires careful structuring to reduce subjectivity of assessment.

It is important, however, to look on these disadvantages as problems to be overcome. Where possible, tests **should** be practical.

5.18 WRITTEN TESTS

These record trainee response on paper. They may be generally classified into two commonly known types:

a. **Essay Tests** - Here the requirement is for trainees to write an extended answer to a question. The length of response required may vary from an essay of a few paragraphs to several pages. The essential feature of this type of test is that it must be marked by a subject expert, because there are many forms of the correct answer.

b. **Objective Tests** - The requirement in this case is for the trainee to check a correct response, or supply a separate response (usually only a few words) that is the only correct answer accepted. There are four types of objective test, as shown in Figure 5:2 and the following points should be noted:

(1) TRUE/FALSE and MULTIPLE CHOICE questions measure trainee **recognition**. The trainee is required to recognise whether a given answer is correct, or to differentiate between incorrect and correct answers.

(2) MISSING WORD and SHORT ANSWER questions measure trainee **recall**. The trainee is required to bring to mind the correct answer and record it on the paper.

1. TRUE/FALSE
The correct date/time group for 3.15 pm on Saturday, 13th October, 1990 is 131515K OCT 90

TRUE FALSE

2. MISSING WORD
The correct date/time group for 3.15 pm on Saturday, 13th October, 1990 is _____

3. SHORT ANSWER
Describe what you understand by the date/time group 131515K OCT 90.

_____

_____

_____

4. MULTIPLE CHOICE
The correct date/time group for 3.15 pm on Saturday, 13th October, 1990 is:

a. 151513K OCT 90
b. 131515L OCT 90
c. 131515K OCT 90
d. 151513L OCT 90

Figure 5:2
Objective Tests-Samples

5.19 Written tests have the advantage of being more convenient, quicker and cheaper to administer than practical tests. A large number of trainees can complete a written test on a wide range of subject matter with only one supervisor present.

5.20 Disadvantages of written tests are that:

a. they require a minimum level of literacy that may not be necessary in the job for which the person is being trained; and

b. if the tasks require manual skills, trainees can only be asked how they would perform the tasks, and this is not a valid assessment.

5.21 ORAL TESTS

These may be classified into two types based on the degree of structure of the test:

a. **Structured Tests** take the same form as a written test, but the examiner asks the questions and the trainee answers verbally. The same test can be administered to all trainees.

b. **Unstructured Tests** are used to supplement assessments made by other methods and are useful if the trainee is a borderline case. Although the test is planned, it may have a different content for each trainee based upon trainee response to the questions.

5.22 Oral tests are particularly useful when:

a. standards of trainee literacy are low;

b. the purpose of the test is to assess ability to think logically when confronted by different situations; and

c. a flexible test is needed to probe areas of vital knowledge.

5.23 Disadvantages or oral tests are that:

a. they are expensive in terms of time and instructor resources;

b. they are difficult to administer;

c. the assessment procedure needs careful structuring to reduce subjectivity.

SUMMARY

5.24 Testing is seen as a vital part of the design of training. The testing techniques described in this Chapter are essentially a refinement the training objectives. However, they are at opposite ends of t. training sequence. The objectives tell all concerned where the trainees are going; the tests show whether they have arrived. It is the job of the test designer to ensure that there is a close match between the objectives and the tests, and that the tests consume the minimum of resources.

CHAPTER SIX

PLANNING AND PREPARING AN ANNUAL TRAINING PROGRAM

INTRODUCTION

6.01 We are now entering the second quadrant of the training cycle - Training Development and Implementation. In this Chapter, the development of a plan for an annual training program is considered. In Chapter Seven, this will be followed by a detailed outline of the process of planning and preparing a component training course within that program.

PLANNING CONSIDERATIONS

6.02 REASONS FOR PLANNING

Planning is an essential activity in the development of any training program. As we have seen in previous Chapters

a training is provided in response to identified training needs, and

b. those needs are described in the form of written training objectives which state the required level of trainee performance at the conclusion of training.

Training objectives, therefore, represent the **goals** of a training program. The **training plan** establishes the sequence and content of component courses/activities, training design requirements, and the training methods and media necessary to successfully reach these goals.

6.03 In other words, terminal (final) training objectives identify where we wish to be at the conclusion of our training program. The training plan prescribes the strategies that will allow us to get there.

6.04 PLANNING PRINCIPLES

In preparing a training plan, the following principles must be applied:

a **Relevance** - Program objectives, standards and content must be relevant to identified training needs.

b. **Objectivity** - The effectiveness of program components (courses/activities) must be capable of measurement through practical observable performance on the part of the trainees.

c. **Quality Control** - The establishment of strong links between the trainee/user/trainer to confirm the long-term effectiveness of training.

6.05 PLANNING STEPS

By following the steps listed in Figure 6:1, your training plan will reflect the requirements of training needs, and will incorporate all factors which are important in reaching terminal objectives. After completing each step, it is important to **relate back to training needs and objectives** to ensure that planning is relevant and the requirements of objectives are being met.

	PLANNING STEPS	COMMENTS
1.	Identify areas where training is required.	Rank training needs in priority order. Separate any conflicting needs through a comparison of costs and benefits (cost/benefit analysis).
2.	Determine terminal and component training objectives.	Ensure that these will satisfy the high priority training needs, and that they prescribe standards of performance.
3.	Devise tests of training.	Ensure tests are relevant to the performance prescribed in training objectives.
4.	Consider time.	Determine the total time needed to complete the program. Is this realistic in terms of other commitments? You may have to revise objectives if available time is insufficient to meet them.
5.	Consider training methods.	Evaluate a range of training methods eg class instruction, programmed learning, simulations (exercises) etc. Select the combination of methods that will most efficiently meet terminal objectives.
6.	Consider validation of training.	How are tests of training to be evaluated? What methods of long-term evaluation will be used? Plan to obtain feedback related to the desired standards of performance on the job.
7.	Consider requirements for personnel.	Particularly for instructional/assessment staff. Are numbers realistic?
8.	Consider requirements for material resources.	Broad estimate of venue, equipment, vehicle and material requirements. Are these realistic?
9.	Consider requirements for training funds.	Estimate total costs and determine possible sources of funds.

Figure 6:1
Planning Steps

PREPARATION STEPS

6.06 Having compiled the training plan, detailed preparation of component courses and other activities can commence. Figure 6 2 lists a number of steps which should be taken to ensure systematic program preparation

	PREPARATION STEPS	COMMENTS
1.	Consider program on a monthly basis	A 12 month planner sheet is a useful tool for this exercise Identify those months when peak training periods can occur, and those when training load will be light eg Dec/Jan. Identify school and public holiday periods.
2.	Enter any standing training commitments.	Any fixed or recurring commitments should be entered first.
3.	Enter conferences and meetings	These are normally of short duration and are easier to program than training courses
4.	Arrange training courses in a natural sequence	Ensure that pre-requisite requirements are met - basic level before advanced etc.
5.	Enter weekend courses and activities.	Are there too many? Some may need to be diverted to week days. Work on maximum of 40 weekends available per year.
6	Enter weekday courses and activities	Make sure these are not excessive, and do not conflict with other work priorities.
7.	Arrange venues and write them into the program.	Ideally, venues should be flexible and varied They must provide the facilities that will allow objectives to be reached.
8	Allocate tasks.	Allocate individual course/activity design and organisation tasks to staff members Arrange feedback mechanism to keep check on progress and problems.
9.	Allocate training funds	Allocate funds for each course/activity. Arrange feedback on expenditures
10.	Conduct training courses and activities	Conduct training, apply tests and evaluate progress toward terminal objectives.

Figure 6 2
Preparation Steps

PROGRAM FUNDING

6.07 ESTIMATES

When preparing estimates of training expenditure, it is important to provide a detailed assessment of the range of costs associated with all program components. These costs may include:

a training development costs;

b. training venue hire,

c. catering;

d. accommodation;

e. travel fares and allowances; and

f overtime.

6.08 SUBSTANTIATION

Estimates of expenditure should be supported with detailed substantiation of need. As training objectives prescribe training outcomes, these will be the basis of substantiation provided.

SUMMARY

6.09 Planning is essential to the development of any training program. The training plan establishes the sequence and content of component activities, training design requirements and the training methods and media necessary to successfully attain terminal training objectives.

6.10 Terminal objectives describe the desired outcome of the training program. The training plan establishes the planning and preparation strategies that will allow this outcome to be reached.

CHAPTER SEVEN

PLANNING AND PREPARING A TRAINING COURSE

INTRODUCTION

7.01 The development of component training courses, within the overall training program, can also be undertaken using sequential steps which are consistent with the systems approach. The following paragraphs provide a step by step guide to the effective planning and preparation of a training course.

PLANNING STEPS

7.02 Start with the specific training objectives for the course which were determined during the program planning stage Work through the steps detailed below·

7.03 **OBJECTIVES**

Set training objectives for each session of the course Make sure that all objectives are relevant to the course objectives i.e. the training objectives for each session, when put together, should allow the objectives for the course to be achieved.

7.04 **TESTS**

Design the detailed training tests to be used:

a. in each session; and

b at the conclusion of the course.

Make sure these are compatible with session and course objectives

7.05 **SUBJECT MATTER**

Determine the scope of subject matter for each session.

a Consider firstly·

(1) what the trainee has to be able to do at the conclusion of each session (training objectives), and

(2) what the trainee already can do (pre-training tests may be necessary to determine this).

The difference must be the required session content, as shown in Figure 7.1.

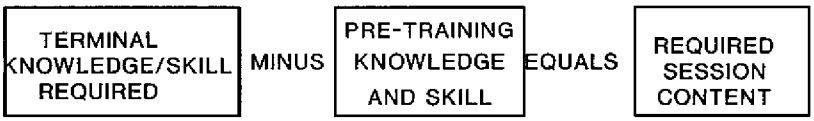

Figure 7·1
Determining Content

b Then consider

(1)	**Must know** material -	The core essentials which cannot be excluded
(2)	**Should know** material -	Desirable subject matter to strengthen, complement or expand on the 'must know' area.
(3)	**Could know** material -	Background subject matter, not essential to the session.

and relate back to session objectives and time available. Normally, it will be time constraints which will determine the percentage of 'should know/could know' material able to be included

7.06 PRESENTATIONS

Select methods of presentation - they should permit maximum trainee involvement whilst remaining compatible with session objectives

7 07 TRAINING AIDS

Consider requirements for training aids, and how these are to be produced/obtained

7.08 CONDITIONS

Consider conditions of work - will training be conducted indoors/outdoors; are there safety considerations?

7.09 EVALUATION

Consider course evaluation - what method/s will be used to ensure that course objectives have been reached.

	START with course training objectives **THEN:**		
1	Define the	-	SESSION OBJECTIVES
2	Design	-	TRAINING TESTS
3	Relate these to	-	TIME AVAILABLE
	and	-	TRAINEE KNOWLEDGE/SKILL
4	Then consider	-	SUBJECT MATTER
		-	PRESENTATION METHODS
		-	TRAINING AIDS
		-	CONDITIONS OF WORK
5.	Finally, design	-	COURSE EVALUATION

Figure 7:2
Planning Steps Summary

PREPARATION STEPS

7 10 Typical course preparation steps that would need to be taken are detailed below:

7.11 BLOCK SYLLABUS

Prepare a block syllabus (see Annex A for example). Ensure sessions are in logical sequence. Each session should not exceed 40-45 minutes in length

7.12 INSTRUCTOR'S NOTES

Prepare instructors notes for each session These should be brief, but contain the scope and sequence of all **must know** content.

7.13 INSTRUCTORS

Select instructors, ensuring that they are trained and competent. Also consider whether they will need assistance?

7.14 BRIEFING AND TASKING

Brief instructors and allocate preparation tasks (including detailed lesson plans and individual training aids).

7.15 HANDOUTS

Prepare trainee handout material and exercise notes.

7.16 VENUE

Organise (confirm) the venue and arrange an inspection by all instructors

7.17 EQUIPMENT

Organise equipment and material requirements.

7.18 SUPPORT

Organise support requirements eg catering, administration etc.

7.19 INFORMATION

Provide pre-course information to trainees.

SUMMARY

7.20 Component training courses should be planned and developed using the sequential steps prescribed by the systems approach These steps ensure that individual courses are relevant to established training needs, and contribute to the achievement of terminal objectives for the overall training program.

ANNEX A TO CHAPTER 7

COURSE: BASIC MAP READING			
SERIAL	**TOPIC**	**REFERENCE**	**NUMBER OF PERIODS**
1	**INTRODUCTION:** Aim and Objectives Types of Maps Map reading terms Care of maps	AEM - Map Reading and Navigation Chapter 1	1
2	**MARGINAL INFORMATION AND CONVENTIONAL SIGNS**	Chapter 2	1
3	**SCALE AND DISTANCE:** R.F. Linear Measuring distance Judging distance	Chapter 3	2
4	**GRID REFERENCES:** Grid System	Chapter 4	2
5	**SHAPE OF THE GROUND:** Gradients Inter-visibility Relief Hachures/shading Contours Height representation	Chapter 5	3
6	**DIRECTION:** Points of the compass The degree system North point-magnetic variation Bearings	Chapter 6	2
7	ETC		

Figure 7A:1
Block Syllabus Example

CHAPTER EIGHT

VALIDATING A TRAINING PROGRAM

INTRODUCTION

8.01 In Chapter 5, we saw that tests of training are used to provide the necessary indicators of how successful training has been in achieving pre-determined training objectives However, tests only provide short-term validation of trainee performance standards achieved during the conduct of training.

8.02 SHORT AND LONG-TERM VALIDATION

It is necessary that the total effect of training be validated, on both a short-term and long-term basis in order to directly indicate the degree of its effectiveness and efficiency Validation identifies changes which must be made to keep training both efficient and effective

8.03 EFFICIENCY

Training is efficient when a satisfactory number and proportion of trainees meet the requirements of the training objectives for the least cost in resources

8.04 EFFECTIVENESS

Training is effective when it prepares the trainee to perform to the desired standard on the job

TYPES OF VALIDATION

8.06 Validation can provide information on three areas of training.

8.07 DEVELOPMENTAL

Developmental validation is undertaken prior to training being conducted. Draft training procedures are piloted as they are developed, and amended as necessary. The aim is to ensure, as far as possible, that course content will be consistent with training objectives.

8.08 INTERNAL

Internal validation is concerned with training efficiency Training is made cost-effective. Validation is **short-term**.

8.09 EXTERNAL

External validation is concerned with training effectiveness. Performance on the job is the main consideration Validation is **long-term**

AREAS OF INVESTIGATION

8.10 Validation data should be collected from four main areas - reaction, learning,behaviour on the job, and results. Over-emphasis on one of these areas can lead to inadequate data on which to base decisions about modifications to training. Each area is briefly described in the paragraphs below.

8.11 REACTION

Trainee reaction gives an indication of the acceptability of the training. Acceptability affects trainee motivation which is an important dimension of learning.

8.12 LEARNING

Validation of the learning that has taken place usually involves before and after measures of knowledge and skill. Any increase may be due to the training given.

8.13 PERFORMANCE ON THE JOB

Data from this area is more difficult to collect because it is often outside the immediate control of the trainer. However, this data will reflect on the effectiveness of training. If the trained person cannot do the job, the training given must be questioned.

8.14 WORK UNITS

Performance by work units as a whole may reflect good standards of individual/team training.

ASSESSMENT OF TRAINING

8.15 The validation data collected should be directed towards an assessment of three aspects of training - the training plan, the training process and the product of training. Each is described below.

8.16 TRAINING PLAN

Validation of the training plan reflects upon the soundness of the training design. The training plan should be based on analysis of the training need and the selection of alternative learning experiences that achieve objectives at the best cost-benefit result.

8.17 TRAINING PROCESS

Validation of the training process reflects upon the administration of the training program and the effectiveness of training methods, procedures and materials.

8.18 PRODUCT OF TRAINING

Validation reflects upon:

a. the results of training at the time of completion; and

b. the proficiency of ex-trainees on the job over a period of time, where this performance is related to training.

SOURCES OF VALIDATION DATA

8 19 RELIABILITY

Validation data should be gathered from a number of sources. Instructors, trainees, previous trainees and job supervisors can all be useful contributors, but their contributions need to be measured carefully to ensure that data is both valid and reliable

8 20 INSTRUCTORS (SHORT-TERM)

Instructors are in a unique position to provide feedback on training efficiency. Not only are they subject matter experts, but they are also close to the detailed learning process. Their observation of trainee difficulties during learning, and reactions during testing, can assist in identifying reasons for poor performances.

8 21 TRAINEES (SHORT-TERM)

Since trainees are the ones who have to cope with the learning activities and tests, their reaction to these should be most useful to validation. Such aspects as subject difficulty, balance of theory and practise, time spent on subjects, and disliked activities should be questioned Opinions of unsuccessful trainees should also be sought, as these may indicate specific problem areas as far as they were concerned

8.22 PREVIOUS TRAINEES (LONG-TERM)

Previous trainees should be approached, between three and six months after completing their training, so that they will remember sufficient detail to enable them to relate training received to what they are doing on the job. Deficiencies in training are likely to be more evident to previous trainees after some period of time applying the knowledge and skills learnt on the job. In particular, previous trainees who successfully completed training but are not doing well on the job should be questioned, since this reflects directly on the criteria being used for assessment of trainees.

8.23 SUPERVISORS (LONG-TERM)

Supervisors can provide the most useful long-term validation by objectively observing and measuring the performance of previous trainees on the job. Performance appraisal systems, administered by supervisors, can provide specific data on skill and knowledge deficiencies which may need to be addressed through modifying or expanding training.

COLLECTION OF VALIDATION DATA

8.24 There are several measurement methods which are used in the process of validating training both internally and externally.

8.25 TESTS

The most commonly used tool in validation of the training process is testing as follows:

a. **Internal Validation** - Tests assess the efficiency of training by measuring the extent to which objectives are achieved by trainees.

b **External Validation** - Tests measure the effectiveness of training in meeting job requirements.

In both cases, the actual performance of the trainee is measured. Where identical tests are used both in training and during external validation, higher standards may be set for the latter. This will occur where skills are introduced during training but, because of time constraints, could not be developed in full and subsequent job experience has increased the skill

8.26 EXERCISES

A specialised method of testing performance - the exercise - is covered in detail in Chapter 9

8.27 QUESTIONNAIRES

These are instruments which can be used to measure the opinions and attitudes of instructors, trainees, previous trainees and supervisors. Questionnaires may provide extremely useful information about the training system which can be used in the following ways:

a Trainees' and instructors' opinions about the course should be considered when detail for future training on the same subject is planned.

b. Instructors' opinions of trainee learning will often complement test results in identifying problem areas in a course or trainee selection procedure

c. The attitude of previous trainees towards their training, once they have on the job experience, can be very useful in identifying any omissions or unnecessary inclusions in training content.

d. Supervisors are in a good position to indicate tasks where training is necessary but was either inadequate or not conducted, and to advise on the amount of on-the-job training possible and advisable.

8.28 A well constructed questionnaire is normally necessary to guide feedback into a useable form It may be that suggestions from instructors, trainees, previous trainees and job supervisors cannot or should not be met, but it is necessary to.

a. determine what they see as necessary content in training, and

b convince them that their opinions will be considered as important elements in training design.

It is stressed that information obtained by means of questionnaires is necessarily subjective in nature. The design and analysis of questionnaires must take the possibility, even the likelihood, of bias and mistaken opinion into consideration

8.29 TRAINING REPORTS

Regular reports on individual trainee's progress in training should be made by instructors The reports should be prepared in such a way that objectives achieved, together with student attitude, aptitude and application can be readily identified. Reports of this type will enable the early identification of problem areas in training i e. areas in which trainee learning is deficient. This information should then be supplemented by information obtained by questionnaire or interview with those trainees having difficulty

8.30 ON-THE-JOB REPORTS

Reports on job performance of previous trainees' should be sought from supervisors Because of the difficulty in obtaining independent measures of job performance, on-the-job reports are often the key to assessing the effectiveness of training These reports should also be supported by questionnaires and test information, where possible.

8 31 INTERVIEWS

In most cases, interviews will not be used as the major source of feedback on training because they are very time consuming. However, a well structured and conducted interview can yield valuable information which might not be obtained by the other methods of obtaining feedback Some examples of situations where interviews might be used are as follows·

a. With an individual trainee or instructor, when either seems to have a particular problem in training.

b. With selected trainees and instructors where there is a more general problem. In some cases, the trainees interviewed would be those not doing well in training In other cases, a range of trainee opinions may be sought The interviews would be part of the internal validation of training

c With a sample of successful ex-trainees and their supervisors on the job when external validation of training is being conducted These interviews should be in addition to those conducted for internal validation

d With selected trainees as a basis for constructing an attitude questionnaire to be administered to trainees. In this case, the sample should include good, average and poor trainees

SUMMARY

8.32 QUALITY CONTROL

Validation provides the **quality control** over training. It identifies changes which must be made to ensure that training is conducted efficiently and effectively.

8.33 VALIDATION PROCESS TOOLS

There are a number of tools which can be used in the validation process - tests, questionnaires, interviews and others. It is important to use a variety of these in order that objective feedback on training results is obtained.

CHAPTER NINE

PLANNING AND PREPARING AN EXERCISE

REASONS FOR CONDUCTING AN EXERCISE

9.01 PRACTICAL SIMULATION

The use of exercises, which are designed to guarantee a realistic and authentic simulation of an emergency situation, is an essential component of any training program. The exercise is used to put into practical effect the skills and knowledge obtained during formal training, and to provide trainees with a degree of realism which is not normally possible during their basic individual/team training.

9.02 SPECIFIC BENEFITS

More specifically, there are four major reasons for conducting a training exercise. They are:

a to reinforce previous training;

b to test previous training and/or planning (short-term);

c as validation of training programs and/or planning (long-term); and

d. to test the ability of separate groups to work together on a common task and the effectiveness of co-ordination between them

TYPES OF EXERCISES

9.03 The following paragraphs outline a range of emergency management exercise types which can be selected for individual and group needs.

9 04 SYNDICATE EXERCISE (SYNDEX)

A discussion style exercise which allows participants to consider problems posed by a single narrative or sequential narratives. Participants prepare their responses in Syndicate, and present and discuss an action plan in plenary session. Syndicate Exercises can be used to reinforce theory sessions, practise group problem solving techniques, or test knowledge of Standing Operating Procedures (SOPs)

9.05 TABLETOP/DISCUSSION EXERCISE (TABLEX/DISCEX)

An indoor exercise employing a carefully prepared scenario to test and practise various aspects of emergency management planning and/or training. It may be:

a. a simple **discussion-type exercise** in which participants 'play through' a given scenario (with real times expanded or contracted to maintain realism and allow time for discussion of key issues); or

b. extended to include actual tests of operational procedures and staff work within an EOC (sometimes called an **indoor telephone exercise** - see para. 9 08d)

9.06 TACTICAL EXERCISE WITHOUT TROOPS (TEWT)

TEWT's are used to relate theory which has been taught in the classroom to a simulated operational situation on the ground This allows controllers, operations officers, etc to be practised and tested in problem solving and decision making techniques without actually deploying their resources to a field situation The basic elements of a TEWT are as follows.

a. **Narrative** - This is used to set the scenario for the exercise. It describes the operational situation upon which the problem/s to be solved are based The narrative should be as concise as possible, whilst still providing a situational summary in such detail as would normally be obtained during an actual operation.

b. **Problems** - These should flow logically from the narrative and should contain the degree of complexity consistent with exercise objectives. They are normally considered in small groups (syndicates) each of which has a leader to organise and control the discussion.

c. **Solutions** - Solutions to the problems set are presented by each syndicate in verbal or written form, or both Each syndicate nominates a spokesperson to deliver the verbal presentation Points to remember

(1) Following presentation of syndicate solutions, a central discussion is conducted during which the major points brought forward by syndicates are reinforced and evaluated. Points missed by syndicates can also be covered

(2) Where a number of experienced Directing Staff (DS) are available, there may be no need to present solutions and hold discussions in a central session. Indeed, trainees will often learn a great deal more through individual members of syndicate (or sub-syndicates of two or three people) putting alternative solutions to the DS and the whole syndicate discussing points for and against the proposed solutions.

d. **Directing Staff (DS) Notes** - These are prepared by the exercise planner as a detailed guide to the TEWT Directing Staff. As well as following details contained in paragraphs 'a' and 'b', they should:

(1) state the problem aim (in other words, the reason for setting the problem eg 'to practise participants in appreciating an operational situation and making appropriate decisions'),

(2) give guidance to DS on the best approaches to discussing the problem;

(3) detail the main lessons or principles which syndicates should learn from the discussion; and

(4) include a **possible** solution to the problem for the guidance of DS. Refer to the following points

(a) Generally speaking, the DS solution should not be revealed to participants, because a primary aim of conducting a TEWT is to highlight the principles upon which a solution should be based. If participants are merely given the DS solution, without adequate understanding of the principles, there is always the tendency in a real operation for the DS solution to be applied as a panacea.

(b) This approach can sometimes lead to major mistakes being made in operations by persons who believe they have 'learnt' from a DS solution how to handle a particular situation. An operational situation may have an outward resemblance to a TEWT scenario but, in reality, a number of factors may be markedly different. In any case, there is rarely ever only one correct solution to a problem.

(c) One of the arts of writing a TEWT narrative is to ensure syndicates arrive at differing solutions, so that the good and bad points of proposed solutions can be debated. Thus, a lively discussion ensues and, most importantly, the principles upon which sound solutions should always be based are revealed to participants and learnt.

9.07 OPERATIONAL EXERCISE (OPREX)

Operational Exercises are characterised by the deployment of personnel and resources on the ground as if the incident were real. They may be of three types:

a. **Skills Exercise** - This is designed to practise and test the technical skills and procedures of individuals/teams. It is a natural conclusion to any skills training program.

b. **Command Post Exercise (CPX)** - This is where Forward Control and EOC personnel are exercised to test Standing Operating Procedures and the operational decision making process.

c. **Field Exercise** - This may be used to test a number of elements within an organisation or between organisations. The successful conduct of this type of exercise requires that all elements have reached an appropriate level of training. A full-scale field exercise is a complex simulation of a complete operational deployment, and is one of the most difficult activities to plan and conduct successfully.

d. **Indoor Telephone Exercise** - This tests operational proceduress and staff work within an EOC and its aim is to realistically simulate an operational situation, using prepared messages and operational reports, without the requirement of using actual resources - people, vehicles etc - in the field. The exercise can be designed to cover a range of procedures, or can be limited to a particular function such as:

(1) basic staff work (maintaining logs, plotting information etc);

(2) collating and processing operational intelligence,

(3) operational problem solving and decision making; or

(4) communications systems and procedures

An example control layout for an indoor telephone exercise appears at Annex A (Figure 9A:1)

EXERCISE PLANNING

9.08 GENERAL

Two Exercise Management Models, focussing on both learning and planning perspectives, appear at Annexes B and C to this Chapter The following paragraphs provide an overview of the basic aspects of exercise planning which should be fully considered, regardless of the type of exercise proposed. Whether it be a simple EOC telephone exercise or a full scale field exercise, unless sufficient time and effort are devoted to the planning stage, the probability of a successful exercise resulting is low.

9.09 OBJECTIVES

Exercises should be conducted to reinforce and test a training program. It is essential that, as the initial step, realistic exercise objectives be established which are consistent with the training objectives to be tested. The primary characteristic of well written exercise objectives is that they are unambiguous, One interpretation only should be possible, ensuring that uniformity is achieved and subjectivity avoided.

9 10 OBJECTIVE COMPONENTS

Each objective should comprise three components, being precise statements of:

a. **performance** required from participating individuals/teams,

b. **conditions** under which this performance will be tested; and

c performance **standards** to be achieved

9.11 OBJECTIVE ACHIEVABILITY

It follows then that each objective must be capable of being achieved To ensure that this is so, it is necessary to continually refer back to the set objectives following each planning step It is very simple to loose sight of the original objectives when engaged in detailed planning. Many a potentially effective exercise has suffered through the original objectives being allowed to expand to the point where they have become difficult, or even impossible, to achieve

9.12 PERSONNEL/GROUP RESPONSIBILITIES

The exercise responsibilities of individual/group participants should equate those responsibilities which they would be expected to have during a real emergency situation. They should also be compatible with the levels of training previously attained by each individual/group In planning the exercise, care must be taken to define individual/group responsibilities as precisely as possible in order that confusion, overlapping of functions and duplication of effort are avoided.

9.13 SCHEDULED/UNSCHEDULED EXERCISE

In trying to achieve the maximum degree of realism, it is extremely tempting to consider conducting an exercise by providing no, or minimal, warning to the participants. Although unscheduled exercises provide the most valid test of training and procedures, the dangers in using this approach probably outweigh the advantages, particularly in first run exercise situations. It is strongly recommended that initial and immediate follow-up exercises be planned with the participation and knowledge of all groups to be involved However, should the stage be reached where exercise objectives are being achieved by participants, then the conduct of a 'surprise package' exercise is probably a logical development to consider.

9 14 COMPRESSION OF TIME

In order that an exercise can be successfully planned and managed, and to avoid unnecessary inactivity by participants, it is normal practice to compress the time span in comparison with that over which an actual emergency operation would be conducted. Careful planning should be directed towards the extent that this should be done. Too much compression can lead to an unrealistic situation developing characterised by unnatural confusion, overloaded communication and operational systems, decreasing performance standards and a disproportionate high level of activity by the participants. The degree of time compression selected should be such that planned objectives remain within reach and realistic standards of performance can be attained.

9.15 EXERCISE STAGING METHODS

The success or failure of an exercise very often depends upon the extent to which realistic staging is achieved. The aim here should be to create as much realism as possible within the constraints of safety, time, finance and logistics In the case of field exercises, the site selected should approximate, as closely as possible, conditions which would be anticipated under a real situation. It should present a level of performance difficulty consistent with exercise objectives. The extent of realism can be increased by 'dressing up' the exercise site with the use of wrecked vehicles, debris, smoke and fire, noise, simulated casualties and other staging effects.

9.16 PARTICIPANTS' ATTITUDE

An important, and nearly always neglected, aspect of exercise staging is the attitude of participants. There is nothing than can more readily undermine any attempt at creating an effective exercise than a negative attitude of the participants towards it. There is little point in spending the time and effort necessary for planning and preparation, if the personnel for whom the exercise is to be conducted approach it with the attitude of 'play acting'.

The need for personal motivation toward reaching the objectives of the exercise is one which should be realised by the conducting staff and accepted by each as a personal challenge Every effort should be made to point out to individual participants the benefits which will accrue **to them** if the exercise is successful and the disadvantages if it is not Most people will readily adopt a serious attitude to exercise situations, provided they are given an adequate explanation of **how** the objectives were derived and **why** it is necessary that they be attained.

9.17 PLANNING AND CONDUCTING BRIEFINGS

Exercise planning should include provision for a detailed briefing to be provided to all participating groups as close to the exercise date as circumstances permit, whilst still allowing sufficient time for group representatives to conduct their own special briefings.

9.18 OBTAINING AND ANALYSING FEEDBACK

Even in this initial stage, detailed consideration should be given to methods by which the exercise can be thoroughly evaluated. At the very least, a debrief should be planned, involving representatives of all participating groups, to be conducted as soon as practical following completion of the exercise. It is most important that any debrief be structured in such a way as to provide clear feedback on what **actually happened** during the exercise relative to what was **expected to happen** in terms of the exercise objectives. It is equally necessary to determine whether any failure to reach objectives was due to:

a insufficient or ineffective exercise planning and preparation;

b inadequate performance standards on the part of participants,

c a breakdown in operational procedures; or

d. the exercise objectives themselves being unrealistic or unattainable.

9 19 There is little point in obtaining such detailed feedback unless this is related back to the operational procedures and training which the exercise is designed to test

9.20 If any failure to reach prescribed exercise objectives is found to be due to ineffective exercise planning and preparation, simply uncovering the weak areas and taking appropriate corrective action may be all that is necessary prior to organising a follow-up exercise to test progress If the failure was due to inadequate performance by participants, then this may be able to be corrected by further training or practise Similarly, if operational procedures are the problem, revising plans and/or SOPs may correct this.

9.21 If it becomes obvious that the exercise objectives are unrealistic or unattainable for the current state of training, then a total re-appraisal of the overall training plan may be necessary. In some cases, it may be necessary to accept that training objectives must be adjusted to a more realistic level.

9 22 SAFETY

During the total exercise planning phase, special attention must be given to the safety of participants, especially when the exercise is to be conducted under hazardous conditions. Under no circumstances should the desire for maximum realism achieve priority over safety aspects. Specific procedures for the maintenance of safe conditions must be written into the exercise plan, with special attention being given to these during briefings.

EXERCISE PREPARATION

9 23 It is stressed that exercise preparation requirements should be clearly defined in the planning phase, and all that would normally be required is their implementation. However, a logical approach to preparation will do much to ensure the success of the exercise on the day.

9.24 PROCEDURE

The following preparation steps will normally be required regardless of the type of exercise to be conducted:

a. Establish firm exercise timings, particularly

(1) start/finish times; and

(2) detailed sequence of events necessary for exercise control purposes

b. Prepare exercise instructions - some or all of the following will always be required.

(1) general exercise instructions - general overview of exercise for issue to all participants;

(2) special instructions - for groups having special functions; and

(3) exercise narrative - one of the most important aspects of the exercise and often the most difficult to write it requires great care to ensure the exercise setting (or scenario) is realistic, operationally sound, and allows exercise objectives to be met

c Prepare exercise messages - particularly those which are essential for control and safety purposes.

d. Arrange material and equipment requirements

e. Arrange support requirements - communications, catering, administration etc

EXERCISE CONTROL

9.25 Whether an exercise be of the indoor telephone variety or a major field exercise, its success will always depend upon the extent to which an effective control mechanism has been built into the planning and preparation phases and, most importantly, the conduct phase

9.26 CONTROL LEVEL

It is because of the vital need for control that we speak of 'control level' in indoor telephone exercises, and why a separate Exercise HQ is normally required in a major field exercise

9.27 CONTROL METHODS

Control is essential if the events arranged by exercise planners, in order to test the participants, are to occur at the required time and place and in the desired way It is applied by an Exercise HQ in a number of ways:

a A 'Schedule of Events' is prepared by exercise planners What is to happen, who is to make it happen, at what time and by what means, is carefully laid down, eg

1412hrs - Exercise HQ passes message to . .to investigate report that three (3) people are trapped in collapsed building at location. .. .

b. The Exercise Director, either issuing directives personally or through the Exercise HQ staff, forces a certain course of action upon participants

c Through the Exercise Umpires Umpires are responsible to the Exercise Director for the effective conduct and control of the exercise. In addition to having the Schedule of Events, they are often briefed separately to take certain measures (either verbally or through formal message) to force a particular course of action on participants when the Exercise Director requires. This ensures a specific event occurs at a planned location and time

9.28 If the Exercise Director, through the Exercise HQ and Umpires, does not have the means to force those elements being exercised to react to a given situation in the manner desired, then the exercise becomes 'out of control' and it is unlikely that exercise objectives will be attained.

SUMMARY

9.29 The preceding paragraphs have provided a broad outline of the essential ingredients which, when combined together, create an effective exercise They also stress the need for each exercise to be directly related to the training objectives and procedures which it is designed to test.

9.30 GOAL - DIRECTED SYSTEMATIC APPROACH

This principle ensures that exercises are goal-directed, continually aiming towards the attainment of pre-set objectives In particular, it focuses upon the need for careful and detailed planning, as well as an effective control system, if exercise objectives are to be met By adopting a systematic approach to this task, increased individual/team development will be the exercise planners reward.

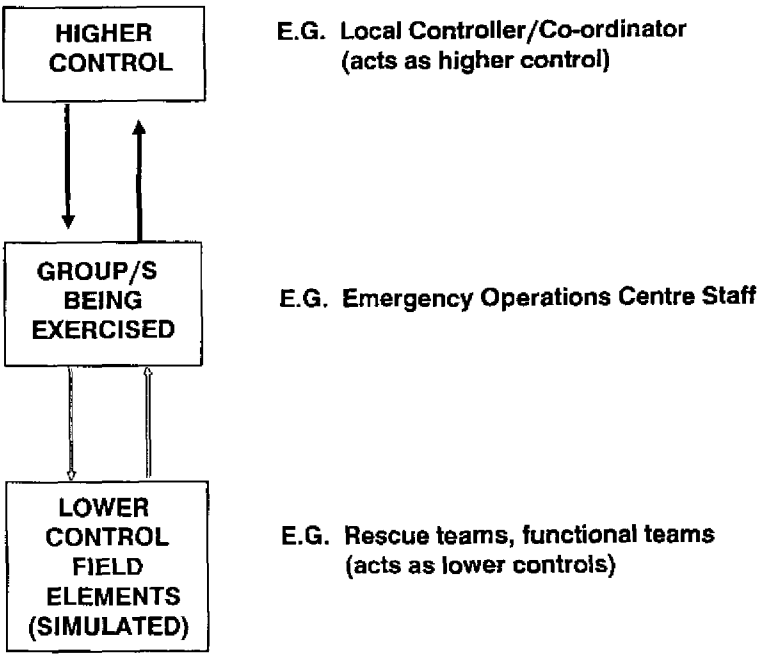

Figure 9A 1
Control of Indoor Telephone Exercises

1. Directions and requests from higher authority (represented by higher control)

2. Information (situation reports) and requests for support from group/s being exercised

3. Directions and requests to field elements (represented by lower controls) from group/s being exercised

4. Information (situation reports) and requests for support to group/s being exercised from simulated field elements (represented by lower controls).

NOTE: The **exercise objective** is **to test** whether the Standing Operating Procedures of the EOC, and the training of the EOC staff, allow for the Controller/Coordinator's **directions** to be passed by the staff to the field elements, and for information from the field elements to be passed back to the EOC, so that further **directions** can be formulated (in other words, so that the operation can be **controlled**).

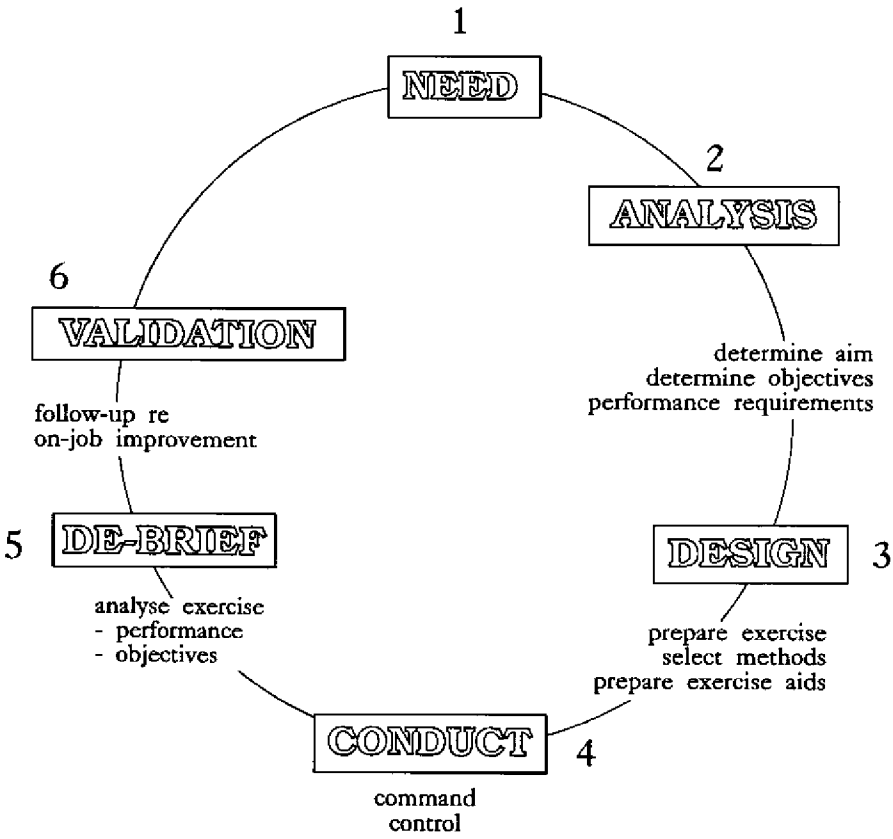

Figure 9B:1
Exercise Management - Model 'A'

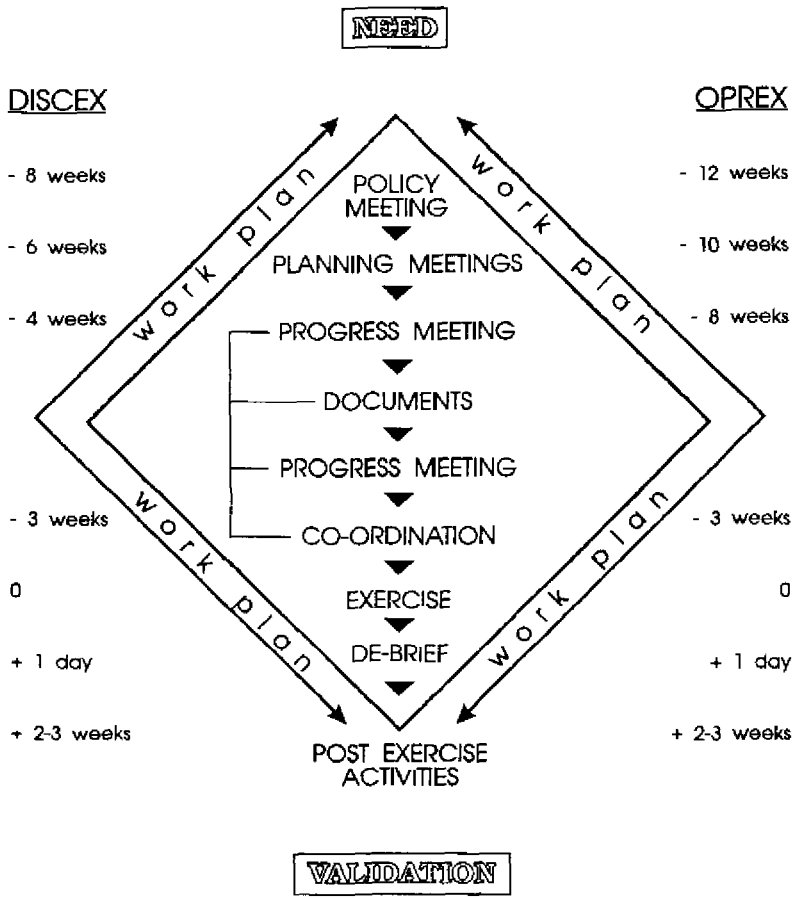

Figure 9C.1
Exercise Management - Model 'B'

CHAPTER TEN

SELECTING, TRAINING AND MANAGING AN INSTRUCTIONAL TEAM

INTRODUCTION

10.01 In this chapter, we will consider the methods by which an instructional team can be selected and managed In particular, the following aspects will be highlighted.

a Organisation of instructors and support staff.

b. Instructor selection

c. Team training requirements

d. Team motivation.

e. Team management.

ORGANISATION OF INSTRUCTORS AND SUPPORT STAFF

10.02 The organisation of instructors and support staff for a given training project can be either centralised or decentralised, as shown in Figures 10:1 and 10 2.

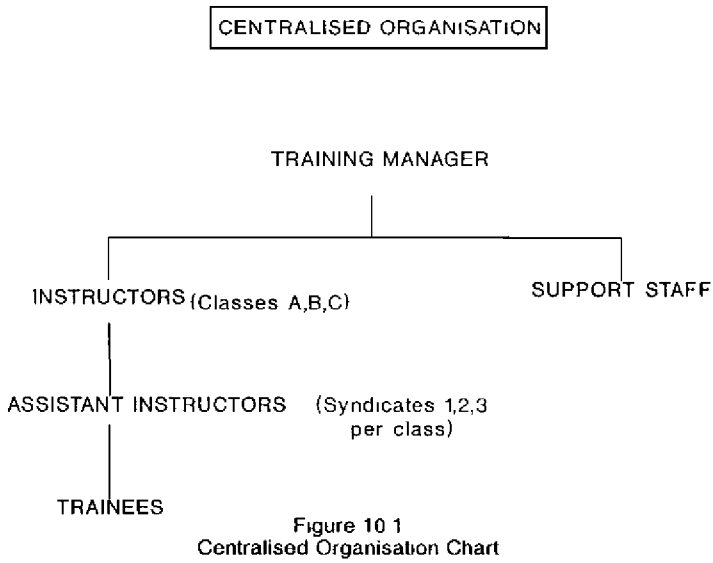

Figure 10 1
Centralised Organisation Chart

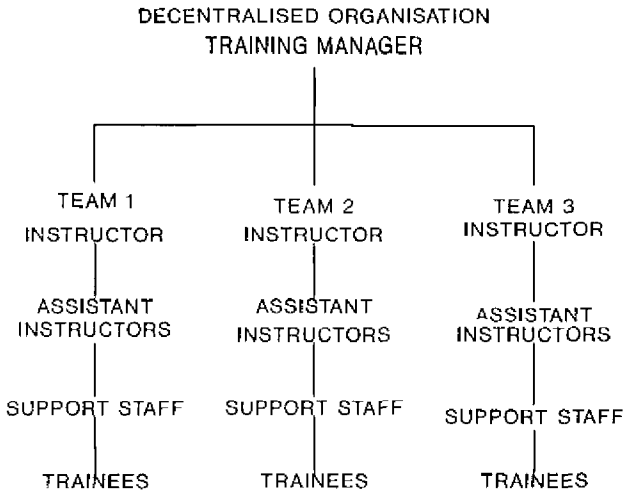

Figure 10 2
Decentralised Organisation Chart

10.03 CENTRALISED STRUCTURE

In the centralised structure (Figure 10 1), instructors are directly responsible to the training manager for training groups of trainees in a wide range of skills. The training manager allocates support as required from central resources

10 04 DECENTRALISED STRUCTURE

In the decentralised structure (Figure 10 2), self-sufficient teams are set up to conduct specific training. Each team has its own support staff.

INSTRUCTOR SELECTION

10.05 When selecting people to form or join an instructional team, it is helpful to base each selection against established criteria which are related directly to the task that the instructors will be expected to perform.

10.6 INSTRUCTOR PROFILE

Such criteria, in effect, create an 'instructor profile' of qualities and competencies against which prospective instructors can be compared and be given an initial evaluation. Some appropriate criteria could be

a. **Knowledge** - Have a deep and extensive understanding of tasks and processes which are to be the subject of training

b. **Technical Expertise** - Have ability to practically apply skills and processes to a high standard.

c. **Leadership Ability** - Have ability to direct and motivate the behaviour of trainees toward attaining training objectives.

d. **Instructional Ability** - Have ability to promote the learning of knowledge and skills.

e. **Enthusiasm** - Display interest in, and eagerness for, the role of instructor.

f. **Pleasing Manner** - Be friendly and approachable, and displaying personal concern for progress of trainees.

g. **Positive Attitudes** - Display personal commitment to the process and techniques of training.

INSTRUCTOR ROLES

10.07 Instructor roles may include, but not be limited to:

a. giving presentations;

b. conducting practises;

c. conducting evaluations;

d. scoring tests; and

e. analysing test results.

10.08 ROLE CONSIDERATIONS

These roles should be considered and decisions made in relation to whether:

a. instructors are responsible for direct group instruction, or are they required to manage individual trainee progress, through self-paced learning, in which the instructor is required to coach and monitor trainee learning; and

b. instructors are responsible for all testing processes, or is testing to be the responsibility of external assessors.

INSTRUCTOR TRAINING

10.09 Regardless of the roles instructors are required to perform, they will usually require training. This will normally involve training in subject matter and instructional skills, and will be aimed at ensuring that instructors are competent in:

a. group instruction;

b. individual instruction;

c. management of self-study; and

d. administration of tests.

10.10 GROUP INSTRUCTION

To be effective in group instruction, an instructor should be trained in a number of specific instructional skills. An outline of the main skills is given below

a. **Explaining** - This skill is one of the most basic instructional skills. The elements involved are fluency, use of examples, structuring, linking, chaining and feedback;

b **Variability** - This refers to the ways in which the instructor can add variety to a presentation. Variability is related to three areas:

(1) Instructor Manner and Style - Those variations in voice, gesture, movement, pausing, focusing and humour the instructor should employ in a learning environment

(2) Variations in Training and Materials - The use of different senses to create trainee interest.

(3) Instructor Interaction - The way in which the instructor interacts with trainees and the subject.

c. **Questioning** - The techniques involved in asking simple questions is a skill required by every instructor. It forms the base for more advanced questioning, such as probing

d **Introductory Procedures and Closure** - This skill focuses on inducing in trainees a state of readiness for the immediate task by gaining attention and arousing internal motives. The elements of the skill are arousal, structuring and linking, sequencing, reviewing and evaluating

e. **Motivation Skills** - These skills are concerned with the regulation of trainee motivation during teaching/learning episodes. By systematic use of reinforcement techniques, the instructor can facilitate learning, increase student attention, and maintain student motivation. The elements of the skill are verbal, gestural and display reinforcement.

f. **Small Group Instruction** - Many of the skills involved in small group instruction are covered in the preceding paragraphs. However, the three general skills involved in teaching small groups are:

(1) listening skills eg attending, supporting, responding;

(2) organising skills eg grouping, allocating, coordinating, and

(3) guiding skills eg supervising, interacting, participating, discussion leading.

g **Use of Training Aids** - The instructor will be required to operate a variety of training aids and audio-visual and other equipment. Training in the use of the appropriate equipment is vital if the best use is to be made of instructional resources

10.11 INDIVIDUAL INSTRUCTION

Here the instructor 'coaches'. The situation is less structured than for group instruction, and has the distinct advantage of being able to be tailored to the learning requirement of the individual trainee. In individual instruction, the instructor requires training in assessing accurately a trainees prior knowledge/skill, so that the presentation of material for each trainee can be tailored to the minimum required for a trainee to begin practise

10.12 MANAGEMENT OF SELF-STUDY

Self-study lessons require minimum involvement by the instructor. However, the requirement to motivate, monitor progress and organise facilities and tests for trainees working at different speeds represents a special demand on the instructor. The instructor requires training in plotting trainee progress, predicting completion dates, and organising remedial training.

10.13 ADMINISTRATION OF TESTS

When employed in this role, the instructor is guided by the prepared tests. The instructor must be practised in creating the conditions consistent with test instructions, and in providing appropriate cues and prompts to obtain trainee responses.

TEAM MOTIVATION

10.14 Having expended considerable time, effort and (probably) money in selecting and training the instructional team, the challenge for the training manager becomes one of keeping the team members together and retaining their interest/motivation for their role.

10.15 CONSIDERATIONS

The following points may need to be considered by the training manager in maintaining a cohesive and contented team:

a. Need to establish team goals and objectives. How are these to be determined - by the training manager; by the team as a whole; by the training manager and each team member in consultation?

b. Need for each team member to make recognisable contributions toward achieving these goals and objectives. Individual team member objectives must be devised which will contribute to the attainment of team objectives.

c. Need for contributions from each team member to be positively reinforced. Outstanding performances by team members should be rewarded.

d. Instructional tasks to be allocated so that they are spread evenly amongst team members. Both popular and less popular tasks should be allocated equitably.

e. Specialists versus generalists. Where team members have a special interest or competence in a particular field, should they be permitted to specialise in this field? Should members be required to instruct across a range of subject areas?

f. What will happen should inter-personal conflict arise within the team? What action can be taken to solve such problems?

SUMMARY

10.16 In providing the day-to-day management of an instructional team, the training manager will need to perform some basic managerial functions. These functions, together with the major factors which influence them, are shown in Figure 10:3.

A. **PLANNING THE TRAINING PROGRAM**
   (1) Program (team) objectives
   (2) Individual (team member) objectives
   (3) Performance indicators
   (4) Performance strategies

B. **ORGANISING THE WORK**
   (1) Allocating instructional responsibilities
   (2) Delegating authority
   (3) Establishing work processes

C. **LEADING THE TEAM**
   (1) Satisfy task needs
   (2) Satisfy team maintenance needs
   (3) Satisfy personal (team member) needs

D. **CONTROLLING THE WORK**
   (1) Monitoring work processes
   (2) Measuring team/individual instructor performance
   (3) Correcting performance deviations

Figure 10-3
Team Management Functions