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*DRAFT EDITION*

# **A TRAINER'S GUIDE**

## ***HEALTH PLANNING AND EVALUATION FOR DISTRICT HEALTH PLANNING TEAMS***

**Ministry of Health  
Republic of Kenya**

**July, 1982**

### ACKNOWLEDGEMENT

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## PREFACE

Once the Writing Team had thoroughly analysed the task of developing a planning and evaluation training course for District Health Planning Teams (DHPTs), it became clear that no effort of this type would be complete without also providing specific guidance to instructors on how to effectively use the course materials.

The Writing Team has recommended that implementation of this training programme be coordinated by a designated senior MOH official. Those involved in the development of these training materials (i.e., the Writing Team), will then be available to assist as the activity moves from the development stage to the implementation stage.

Although the Writing Team assumes that officials selected to conduct the training course will have had some prior preparation to function as trainers (either through experience or as a result of having received some special course in training), it is however, recommended that the trainers actually undergo the experience of the course as trainees. In this manner, familiarity with the course materials will be guaranteed. A second step in preparation would then be to become thoroughly familiar with the contents of this guide. Finally, as with the implementation of any "project," the trainers should each develop a work plan which identifies all of the logistical and management requirements that should be attended to before, during, and after the course is conducted.

However, even with such preparation, the Writing Team is also firmly committed to the concept of "active learning" and the notion that experience is the best teacher. It is expected therefore, that the trainer's effectiveness in using the materials and in delivering the training programme, will improve as experience is gained.

The course administrators will look forward to reviewing the trainers' experiences through the mechanism of the course evaluation. The trainers' insights will be vital to the process of refining of the course and making it progressively more effective and useful to the DHPTs.

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## 1.0 PRINCIPLES OF TRAINING - AN OVERVIEW\*

### 1.1 Introduction.

The concepts discussed in this section of the Trainer's Guide describe the key philosophical and psychological foundations underlying the instructional approaches used in designing this course. This overview is provided as an introduction (for the individual who has not previously been "trained as a trainer," or as a review for the previously "trained trainer," and should be used as a supplement to other types of technical preparation as may be available.

In addition, at the back of this document can be found selected reprints of articles on the subject of learning/instructional theory. The trainer is encouraged to review these, and to refer to the original sources and other publications, for additional information on the subject.

### 1.2 The Trainer as Facilitator of Learning

When a trainer begins the development of an instructional activity, one of the first things that should be done is to identify and write learning objectives for the activity. In addition, the trainer must also identify and write the underlying learning tasks that the trainees must perform to accomplish the objectives. In effect, a good instructor can analyze any given objective and list the most appropriate learning tasks that a trainee must perform to successfully accomplish the objective.

This section of the Trainer's Guide provides a conceptual framework that will assist the Trainer in selecting the most appropriate learning tasks and instructional methods for a given learning objective of the course.

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\* Throughout this section, terms such as, "trainer," "teacher," "instructor;" "participant," "trainee," "student," "learner;" "educational," "instructional;" are used interchangeably. The principles discussed apply equally to formal education (in-school), and job-related (training) situations.

### 1.3 The Philosophy of Learning

Learning is generally considered to be relatively permanent, observable, and/or recognizable change in the relationship between a stimulus (i.e., instructional content) that a trainee perceives and the trainee's response to the stimulus, whether overt (i.e., observable, detectable, and public) or covert, (i.e., occurs within the trainee and is therefore not readily observable or detectable) relative to the cultural experiences (or socioeconomic background) of the trainee.

A well known educational theorist, Gagne, has classified learning behaviours into eight categories, or skills, that progress from simple to complex. These are:

- a. Signal Learning - the acquisition of a conditioned response to a given signal (or stimulus).
- b. Stimulus/Response Learning - the connection of a specific response to a given stimulus.
- c. Chaining - The establishment of an interrelated series, or set, or responses (also known as skill learning).
- d. Verbal Association - a type of chaining in which verbal units are linked to a concept, object or skill, (e.g., associating the name of an object with the object itself).
- e. Multiple Discrimination - the ability to distinguish between acquired verbal and skill chains.
- f. Concept Learning - the ability to respond to a stimulus in terms of abstract characteristics, such as colour, shape, position, and number, as opposed to concrete or physical characteristics such as length weight texture, etc.

- g. Principle Learning - the ability to associate and relate two or more concepts, (e.g., recognizing the relationship between "atomic fusion" and "radiation."
- h. Problem Solving - the ability to combine two or more previously learned rules or concepts into a higher order rule or concept (e.g., applying the "laws of biology" to solve a medical problem).

Learning can be characterized in the following ways:

- it is a dynamic perceptual activity that results from direct contact through the senses;
- it progresses from the progressive acquisition of simple skills to more complex skills;
- it is either abstract, (i.e., symbolic or conceptual) or concrete, (i.e., based upon direct sensory experiences);
- and, it is influenced by the socioeconomic environment within which it occurs.

#### 1.4 Learning And Objectives

The importance of defining learning objectives as an initial step in planning learning or instructional systems has been emphasized by educators and instructional designers for more than 40 years. Learning objectives are generally considered to be an integral part of a systems approach that involves three stages: 1) input; 2) process or practice; and 3) output or feedback.

1.4.1 At the input stage the instructor identifies his goals and objectives and determines whether or not they can be accomplished given the available resources and the weakness or limitations of the socioeconomic environment in which the learning system must function.

1.4.2 At the process or practice stage the instructor analyses and selects the quality and quantity of information that

will be needed to support the instructional activities.

1.4.3 The final output stage is an implementation/evaluation activity in which a small experimental learning system is put into operation and evaluated based upon the objectives that were identified in stage one. At this point the system is either ready to become fully operational or is re-examined and altered where necessary.

### 1.5 Writing Learning Objectives

Because learning objectives are such an important part of the overall systems approach to instruction they must be clear, explicit, measurable, and obtainable via instruction. Learning objectives which have these characteristics are called behavioural objectives.

A good behavioural objective describes three things:

- a. the terminal behaviour the learner will be able to perform to demonstrate that the objective has been reached;
- b. the conditions under which the learner will be expected to demonstrate his or her competencies; and
- c. the criteria that will be used to evaluate the learner.

The example provided below illustrates how a good behavioural objective should be written. The terminal behaviour is underlined with a broken line ( \_ \_ \_ ); the conditions are underlined with a single line ( \_\_\_\_\_ ), and the criterion is underlined with a double line ( \_\_\_\_\_ ).

#### EXAMPLE:

Given a list of permanent secretaries, the trainee will be able to list the permanent secretaries who have worked in the Ministry of Health, Republic of Kenya since 1962, with at least 90% accuracy.

## 1.6 Classifying Objectives

A good instructor must analyse learning objectives to determine the most appropriate learning tasks a trainee must perform to successfully accomplish them. To facilitate this process, behavioural objectives have been classified into three domains: cognitive, affective and psychomotor. Each domain has also been further subdivided into "hierarchical variables" that progress from simple to complex based upon their respective order of complexity.

1.6.1 Cognitive Objectives are related to knowledge and the ability to think and understand. This, means that cognitive objectives specify the mental reasoning tasks the student will employ and/or use to learn a given amount of cognitive information. These mental reasoning tasks or "hierarchical variables" commonly associated with cognitive objectives are:

- a. Memorization - the ability to recognize and recall objects, symbols, ideas and facts on a specified matter. For example the terminal behaviour for a typical memorization task, would require a student to write the steps required to perform a patient care procedure; write the name of a specific drug; or; recall the time and place of an important historical event.
- b. Comprehension - the ability to demonstrate an understanding of the significance or meaning of objects, symbols, facts or ideas. The terminal behaviours for a comprehension task would require a student to explain the importance of a patient care procedure; identify the function or effects of a specific drug, or; discuss the significance of an important historical event.

- c. Application - the ability to apply learned principles (facts or ideas), objects or symbols to new situations or problems. The terminal behaviour for an application task might require a student to employ a mathematical procedure to solve or develop an equation; use a diagnostic technique to identify an illness, or; demonstrate the relationship between a historical trend and a current event.
- d. Analysis - the ability to separate an object, idea or fact into its component parts; and name and define each component part and the relationships between them. The terminal behaviour for an analysis task could include the ability to examine the functions and vital processes of the parts of a living organism; calculate the chemical composition of a specific drug, or; formulate the sequence of events that lead to a clinical illness.
- e. Synthesis - the ability to combine parts or elements to form a whole or formulate principles or rules from previously learned facts, ideas or learning events. The terminal behaviour for a synthesis task could include the ability to identify or demonstrate the operation of a medical theory in a clinical case study, or; create a new technique for treating an illness based on previously acquired information.
- f. Evaluation - a problem solving behaviour involving the ability to make accurate judgments based on available evidence or criteria. The terminal behaviour for an evaluation task could include the ability to assess the physiological or psychological effects of a given illness; compare and rate two or more research studies, or; measure effects of a specified treatment procedure.

1.6.2 Affective Objectives specify the attitudes or values the student will acquire as a result of the learning that will occur. Affective objectives, therefore, specify learning tasks which require students to make judgements regarding the degree to which their learning experiences have either positively or negatively influenced their feelings and values.

The hierarchical variables, or learning tasks, associated with affective objectives include:

- a. Attending/Receiving - behaviours which demonstrate the student's willingness to accept and pay attention to a given instructional mode or learning stimulus. An example of a terminal behaviour for an attending task could include the ability to listen and take good notes during a lecture or while viewing a film that illustrates an important topic.
- b. Responding - behaviours that demonstrate the student's willingness to participate in scheduled learning activities. Typical terminal behaviours for responding tasks could include attending a required field trip; designing a chart or graph that illustrates a previously discussed concept, or; asking relevant questions on an ongoing basis during a lecture or group discussion.
- c. Valuing - behaviours that demonstrate a student's preference for a given idea, attitude, instructional mode or learning stimulus. Examples of terminal behaviours for valuing tasks include choosing to read a book rather than view a film on a given topic, or; expressing a positive opinion about a given learning activity.

- d. Organizing - behaviours which indicate that a student has acquired or developed a specific value or set of values that will influence future behaviour. Examples of terminal behaviours for organization tasks include suggesting or developing a method for solving a problem based upon previously acquired information, or; writing a brief essay on the importance of a treatment procedure or the significance of a social issue.
- e. Characterization - behaviours which demonstrate that the student has organized a set of values and attitudes into a consistent philosophy or belief system. Terminal behaviours for characterization tasks could include practicing good personal hygiene; respecting the opinions of others in a small group discussion, or; developing good study habits.

1.6.3 Psychomotor Objectives specify the physical and manipulative skills students will develop as a result of instruction. Thus psychomotor objectives should require a student to learn to use specific skills during actual or simulated work experiences. The hierarchical variables, or learning tasks, for psychomotor objectives include:

- a. Perception - an awareness of a situation which may result in or require a given skill. The terminal behaviour for a perception task could include the ability to identify and name the equipment and/or materials needed to perform a skill; recall the specific sequence in which the skill should be performed, or; recognize and describe the circumstances in which a skill will be used.

- b. Set-adjustment or Readiness (to perform a required skill) - this implies that the student is mentally and emotionally prepared to learn the skill. Terminal behaviours for this affective task could include the ability to gather and arrange the equipment and/or materials needed to perform a skill, or; to express his or her desire or readiness to perform the skill that must be learned.
- c. Guided Response - imitating the instructor's performance of a skill and/or trying various responses in a trial-and-error fashion. A terminal behaviour for this affective task would be the ability to accurately imitate the instructor's performance of the steps required to perform a given skill.
- d. Mechanism - developing an habitually correct response. A terminal behaviour for this affective task could be the ability to perform the entire sequence of steps associated with a given skill with a minimum amount of assistance from the instructor.
- e. Complex Overt Response - performing a given skill with ease and without hesitation or prompting by the instructor. A terminal behaviour for this affective task would be the ability to perform a skill smoothly and efficiently with an acceptable degree of coordination and confidence without being assisted by the instructor.

Thus each of the behavioural objectives written for any instructional system should include the terminal behaviour the learner will be able to perform, the conditions under which the learner must demonstrate his or her competencies, and the criteria that will be used to

evaluate the learner performance. In addition, the objectives should be classified as either cognitive, affective or psychomotor. Finally, the most appropriate learning tasks that the student must perform should be developed, and then ordered from the most simple to the most complex, based upon the hierarchical variables commonly associated with each objective.

### 1.7 Insuring Active Learning

The emphasis that is placed on writing behavioural objectives and utilizing a systems approach when developing an instructional activity illustrates the need to develop and implement learning experiences in which a student is actively involved in the learning process. Active learning implies active teaching. In other words, the instructor must be prepared to perform certain instructor-related tasks to ensure that the students are involved in active learning experiences. These tasks include:

- 1.7.1 Assuming Leadership - Analyse the learning, (i.e., classroom) environment to ensure that the learning activities focus on learning tasks, student feelings and control. Develop and use leadership techniques that increase student morale and production.
- 1.7.2 Developing good communication skills - Learn to interpret the real feelings behind a student's expressions of dissatisfaction or uneasiness with the learning tasks that must be performed. Avoid actions that shut off the student's real feelings and/or discourage open communication.
- 1.7.3 Applying sound student management techniques - Provide reasonable opportunities for student self-management in the classroom. Select and use instructional materials that encourage student participation in the learning

process whether individually or as part of small group skill practice exercises. Develop an activity schedule that will enable you to cover all the material you must present, and provide students with adequate time to accomplish their learning tasks.

1.7.4 Arranging classroom space - Select and use classrooms that are appropriate for the number of students present. Make sure that the space is clean and that classroom furnishings and instructional media are conveniently arranged to allow for the most optimum use by the students.

#### 1.8 Methods of Instruction

The following represents a compendium of instructional methods that might be employed by the Trainer. These methods can be used flexibly according both to the individual teaching style and preferences of the Trainer, and as appropriate to a particular learning task. The Trainer is invited to explore various methods for appropriateness and effectiveness, and to go beyond this Trainer's Guide to learn more about particular methods.

The principal methods by which instruction may be provided are:

Case Study - An activity in which learners are provided with a written description of a hypothetical situation in which others are attempting to solve a particular problem. Through analysis of the hypothetical situation, learners gain insight into the principles and approaches that might work for them when faced with a similar task.

Comparative Analysis - A thought process, structured by the teacher, which employ as the description, classification, and analysis of more than one system, group so as to ascertain and evaluate similarities and differences.

Conference - A one-to-one interaction between teacher and learner where the individual's needs and problems can be addressed. Diagnosis, evaluation, and prescription may all be involved.

Demonstration - An activity in which the teacher or another person uses examples, experiments, and/or other actual situations to illustrate a principle or show others how to do something.

Directed Observation - Guided observation provided for the purpose of improving the study, understanding, and evaluation of that which is observed.

Discussion - An activity in which learners, under teacher and/or student direction, exchange points of view concerning a topic, question, or problem to arrive at a decision or conclusion.

Drill - An orderly, repetitive learning activity intended to help develop or fix a specific skill or aspect of knowledge.

Experimentation - An activity involving a planned procedure accompanied by control of conditions or controlled variation of conditions together with observation of results for the purpose of discovering relationships and evaluating the reasonableness of a specific hypothesis.

Field Experience - Educational work experience, sometimes fully paid, acquired by pupils in a practical service situation.

Field Trip - An educational trip to places where learners can study the content of instruction directly in its functional setting, (e.g., dispensary, data center, or community meeting).

Group Work - A process in which members of the class, working cooperatively rather than individually, formulate and work toward common objectives under the guidance of one or more leaders.

Laboratory Experience - Learning activities carried on by learners in a laboratory designed for individual or group study of a particular subject matter area, involving the practical application of theory through observation, experimentation and research, or, in the case of foreign language, instruction, involving learning through demonstration, drill, and practice. This applies also to the study of art and music, although such activity in this instance may be referred to as a studio experience.

Learning Assessment - The continuous determination of the nature of learning difficulties and deficiencies, used in teaching as a basis for the selection of day-to-day or moment-by-moment content and methods of instruction.

Lecture - An activity in which the teacher gives an oral presentation of facts or principles, with the class frequently being responsible for note-taking. This activity usually involves little or no pupil participation in the form of questioning or discussion.

Manipulative and Tactile Activity - Activity by which learners utilize the movement of various muscles and the sense of touch to develop manipulative and/or perceptual skills.

Modeling and Imitation - An activity frequently used for instruction in speech, in which the learners listen to and observe a model as a basis upon which to practice and improve their performance.

Programmed Instruction - Instruction utilizing a workbook or mechanical and/or electronic device which has been "programmed"

to help pupils attain a specific level of performance by, 1) providing instruction in small steps, 2) asking one or more questions about each step in the instruction, and providing instant knowledge of whether each answer is right, and 3) enabling learners to progress at their own pace.

Project - A significant, practical unit of activity having educational value, aimed at one or more definite goals of understanding and involving the investigation and solution of problems.

Reading - Gathering information from books, periodicals, encyclopedias, and other printed sources of information, including oral reading and silent reading by individuals.

Recitation - Activities devoted to reporting to a class or other group about information acquired through individual study or group work.

Research - An activity in which learners are engaged in investigation or experimentation aimed at discovering and/or interpreting facts, revising accepted theories or laws in light of new facts, or the practical application of new or revised theories or laws.

Role-Play - An activity in which learners and/or teacher take on the behaviour of a hypothetical or real personality in order to solve a problem and gain insight into a situation.

Seminar - An activity in which a group of learners, engaged in research or advanced study, meet under the general direction of one or more staff members for a discussion of problems of mutual interest.

Sensitivity Training - An activity in which a group and a trainer meet to self-consciously examine their immediate

feelings and preceptions about themselves and each other in order to gain skill in authentic communication, leadership, behavioural flexibility, or social sensitivity.

Skill Practice Session - All activity in which learners have opportunity to put into practice those skills and understandings previously learned through other instructional activities.

## 2.0 KENYA HEALTH PLANNING AND EVALUATION COURSE SCHEDULE - FIRST WEEK

The Schedule shown on the following page essentially describes the structure of the course. The order in which sections appear in the trainee's manual, as well as the listing of activities in the Instructional Guide (see pages 22 to 30), generally adhere to the sequences shown in the Course Schedule.

The Schedule has been designed to present the subject matter in a sequence and time frame which will appear logical and manageable to all. The Trainer may, however, observe some instances where adjustments to the schedule might facilitate learning. The schedule should not be modified during the course, but suggestions should be documented as part of the Trainer's evaluation of the course.

KENYA HEALTH PLANNING AND EVALUATION COURSE SCHEDULE - FIRST WEEK

DAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
<b>TIME</b>					
8:30 a.m. to 10:30	<ul style="list-style-type: none"> <li>- Welcome and Introduction of Teams</li> <li>- Overview</li> <li>  Review of Course Goals, Objectives and Schedule</li> </ul>	<ul style="list-style-type: none"> <li>- Value of Planning Theory and Definitions</li> <li>- Problems, Needs, Wants, &amp; Demand</li> <li>- Demographic Data</li> <li>- Morbidity Data</li> <li>- Constraints</li> <li>- Resources</li> <li>- Community-Based Health Care</li> <li>- Review Case Study</li> </ul>	<ul style="list-style-type: none"> <li>- Activity/Time Charts</li> <li>- Systems Analysis</li> </ul>	<ul style="list-style-type: none"> <li>- Performance Standards</li> <li>- Health Information System</li> </ul>	<ul style="list-style-type: none"> <li>- Implementation and Summary of Plan</li> </ul>
10:30 a.m. to 11:00	T E A B R E A K				
11:00 a.m. to 12:45	<ul style="list-style-type: none"> <li>- Statement of Problem by Each Team</li> </ul>	<ul style="list-style-type: none"> <li>- Cost Analysis</li> <li>- Priority Setting</li> <li>- Goal(s), Objectives and Targets</li> <li>  Review of Subject and Discussion</li> </ul>	<ul style="list-style-type: none"> <li>- Evaluation</li> </ul>	<ul style="list-style-type: none"> <li>- (Work Groups Continued)</li> </ul>	<ul style="list-style-type: none"> <li>- Each team gives progress report and proposal for work during phase II (see TC4)</li> </ul>
1:00 p.m. to 2:00	L U N C H B R E A K				
2:00 p.m. to 3:15	<ul style="list-style-type: none"> <li>- Teaching philosophy and learning methods for this course.</li> </ul>	<ul style="list-style-type: none"> <li>- (Continued from Above)</li> <li>- Possible Goals, Objectives and Targets for each Planning Team's problem.</li> </ul>	<ul style="list-style-type: none"> <li>- (Evaluation Continued)</li> </ul>	<ul style="list-style-type: none"> <li>- Budget formulation and fiscal control.</li> </ul>	<ul style="list-style-type: none"> <li>- (Report Continued)</li> </ul>
3:15 p.m. to 3:30	T E A B R E A K				
3:30 p.m. to 4:30	<ul style="list-style-type: none"> <li>- Theory of Planning: definitions and concepts</li> <li>- Importance of specific planning mandate</li> <li>- Use of Planning Activities Checklist</li> </ul>	<ul style="list-style-type: none"> <li>- Work Groups</li> <li>  District teams meet individually to plan, assisted by trainers.</li> </ul>	<ul style="list-style-type: none"> <li>- Work Groups</li> </ul>	<ul style="list-style-type: none"> <li>- Work Groups</li> </ul>	<ul style="list-style-type: none"> <li>- Review and Course Evaluation</li> </ul>

### 3.0 PREPARING FOR THE COURSE

#### 3.1 Logistics

The trainer will be expected to do several things prior to the beginning of the course. First, he/she must identify and reserve the venue, and ensure that all personal amenities of trainees will be provided for. The venue should provide a classroom of sufficient size to accommodate up to 25 persons. In addition, there should be five small conference rooms adjacent to the classroom. These should accommodate teams of five persons. Each room should be furnished with tables and chairs.

The venue should also provide living accommodations for the participants, (including meals and other support services).

Second, the trainer must contact participants and provide all necessary pre-training orientation. This will be done in cooperation with the PMO and the various DMOs. The participants will consist of three to five District Health Planning Teams, each made up of a medical doctor, a public health nurse, a hospital secretary, a public health officer, and a health education officer.

Third, the trainer must arrange for the instructional materials to arrive at the venue prior to the beginning of the course. You will need to order one Trainer's Guide for yourself, one trainee's manual for yourself and for each participant, and one Appendix for yourself and for each participant.

Finally, the trainer must identify and provide appropriate orientation for all resource persons.

#### 3.2 Instructional Resources

The trainer should ensure that the following resources are available at the training site:

- a. The Trainer's Guide
- b. Trainee's manuals entitled "Planning and Evaluation for District Health Planning Teams"

- c. The Appendix to the trainee's manual (handout materials). These should be reproduced in sufficient supply to distribute one set to each participant.
- d. A sufficient supply of paper, pencils, pens, chalkboard and chalk and/or chart paper, tape, felt-tipped pens, etc.

### 3.3 Using the Resources

This Trainer's Guide is intended to assist the trainer in preparing for conducting and evaluating the course. The Trainer should have this document handy in the classroom and use it as a guide to conduct classroom activities.

The trainee's manual is to be given to the participants for their use. Each participant should be given a copy prior to his/her arrival or upon his/her arrival at the venue. Each participant should study the "B" section (i.e., B1, B2, B3, B4), and Sections P1, P2 and P14 before the first class on Monday, since these selections are central to the content of the first day's instructional activities. Thereafter, participants will need to be given specific direction on a daily basis in terms of additional reading assignments (handouts, etc.) that should be completed prior to the next day's events.

### 3.4 Using the Instructional Guide

On the pages immediately following, you will find a guide for conducting the course. Each page of the guide is divided into four columns as follows:

3.4.1 Objectives: In this column the course objectives are referenced in terms of the code numbers found in the trainee's manual, TC3.

3.4.2 Instructional Activities: This column provides instructions for conducting the training activities. Each activity was designed to help the participants accomplish a specific objective. The trainee should,

therefore, conduct all the activities that are suggested, omitting none. The trainer should also conduct the activities in the order given. If any suggestions for changing or improving the course arise during the week, these should be included in the trainer's evaluation.

#### 3.4.3 Estimated Time

This column provides suggestions about the amount of time to be spent on each activity. These suggestions should be treated flexibly. Some groups will need to spend more time on a given activity, others less. As the instructional leader, the trainer must decide this. Nevertheless, it is important that the trainer guide the participants at such a rate that the suggested activities will all be completed in the course of the week. On the Trainer's Assessment evaluation form provided in the Evaluation section of this guide, a place is provided for the trainer to account for actual time, as was found necessary to complete activities. This information will assist course administrators in making appropriate modifications to the guidelines in the future.

### 3.5 Conducting the Work Group Sessions

Some session on Tuesday, Wednesday, and Thursday are dedicated to work groups.

By the end of the week, each District Health Planning Team is required to produce a draft of a plan for improving health services in its own district. The plan must address each of the points found in the Planning Checklist (pages TC6 and TC7) of the trainee's manual.

Since the Planning Checklist provides the basic organizational framework for the plan, the course has be designed to address

the points on the Checklist systematically, comprehensively, and sequentially. Material relevant to points 5.1 - 5.12 is presented on Monday and Tuesday. Material relevant to points 5.13 - 5.16 is presented on Wednesday. Material relevant to points 5.17 - 5.19 is presented on Thursday. Material relevant to the remaining points is presented on Friday.

In order to facilitate the elaboration of the plan, time has been allotted for the Teams to work in small groups. Those sessions that take place during the last work period of the days may, at the trainer's discretion, continue into the evening hours. It is expected that the teams will take great pride in their work and that they will want to continue working until their work satisfies their own criteria for quality.

The trainer is responsible for making these work sessions as fruitful as possible. It is therefore, suggested that the Trainer do the following:

1. Provide an orientation prior to beginning each work session. Such an orientation might take the following form, "Today you were introduced to the following topics.... Each of these topics was elaborated using background essays, the Makutano Case Study, and related discussion. During the work session today, you should begin (or continue) the elaboration of your plan, taking care to address each of the points we have covered so far. Use the Case Study as a model. I will move among the teams to provide whatever assistance I can. Are there any questions?"
2. Once the questions have been answered, assign each of the teams to its own small conference room to begin work on its plan.

3. The trainer should circulate among the teams to provide assistance. At the technical level, the trainer should be prepared to answer any questions about the topics presented in the preceding sessions. At the procedural level, the trainer should help the teams to keep moving toward their goals when they get bogged down in disputes over which of two or more alternatives to adopt. In this case, encourage the team to make a decision, recognizing that this is a draft, and that if they are to complete it, they will have to keep moving.

### 3.6 The Course Evaluation

A detailed description of the evaluation procedures is presented in section 5.0 EVALUATION GUIDELINES. This paragraph is therefore designed only to call attention to the fact that the heart of the evaluation is each team's presentation of its plan to the whole group on Friday afternoon. The participants should therefore be informed prior to the first work session on Tuesday afternoon, that their presentation will be subject to a critique by the trainers and the other participants. Each team should therefore work as carefully and conscientiously as possible in order to make the most effective presentation possible.

#### 4.0 THE INSTRUCTIONAL GUIDE

OBJECTIVE	INSTRUCTIONAL ACTIVITIES	DAY/TIME	INSTRUCTIONAL RESOURCES
	Welcome the participants to the course.	<u>Monday</u> 1 hour (8:30 a.m. - 9:30 a.m.)	
	Present an overview of the course. Be sure to cover the following points: 1. Description (TC1) 2. Rationale (B1) 3. Goals (TC2) 4. Objectives (TC3) 5. Design and schedules (TC4) 6. Underlying philosophy of teaching and learning (TC6 plus Introduction in this Guide) 7. Instructional resources available and their uses 8. Approach to course evaluation	1 hour (9:30 a.m. - 10:30 a.m.)	TC1 TC2 TC3 TC4 TC6 B1
	Invite the members of each District Health Planning Team (DHPT) to present the health services problem on which they will be working over the course of the week. Give each team 15 minutes to make their presentation, followed by 10 minutes for open discussion.	105 minutes (11:00 a.m. - 12:45 p.m.)	Each group will bring a written description of its problem, one copy to be presented to the Trainer.

OBJECTIVE	INSTRUCTIONAL ACTIVITIES	DAY/TIME	INSTRUCTIONAL RESOURCES
3.1 To identify, describe, list, and differentiate social, cultural, economic, and political factors inherent in health planning.	Present a global view of health planning in Kenya. Begin with a general examination of planning theory (P1), then show the relation of that theory to health services and health planning in Kenya (B2, B3, B4).	1 hour 15 minutes (2:00 p.m. - 3:15 p.m.)	P1 B2 B3 B4
	<p>Show how this course fits into Kenya's approach to health planning. Indicate that the course is organized in terms of a Planning Checklist consisting of 21 steps. Emphasize that at each step, there is a three-fold movement.</p> <ol style="list-style-type: none"> <li>1. Study of relevant background papers</li> <li>2. Application of the background material to the development of a health services plan for Makutano.</li> <li>3. Extension of what is being learned to each Team's own problem</li> </ol>	1 hour (3:30 p.m. - 4:30 p.m.)	TC5 "P" documents Case Study (CS) Appendix
	Take this opportunity to review the Planning Checklist (TC5), the "P" and "CS" sections of the trainee's manual.		
	Ask the participants to study the Case Study plus P2, P3, P4, P5, P6, P7, P8, and P9 in preparation for Tuesday's sessions.		

OBJECTIVE	INSTRUCTIONAL ACTIVITIES	DAY/TIME	INSTRUCTIONAL RESOURCES
3.2 To help participants learn to identify, list, critically analyse, and evaluate:	Lead the participants to distinguish among problems, needs, wants, and demand: the art of establishing priorities (let participants establish a prioritized list of problems, etc.)	Tuesday 20 minutes (8:30 a.m. - 8:50 a.m.)	P2
a. Health related problems and needs	Present the content of P3 and P4. Ask the participants to justify their list of priorities in terms of each district's demographic and morbidity data.	40 minutes (8:50 a.m. - 9:30 a.m.)	P3 P4
b. Actual and potential resources	Present the content of P5 and P6. Ask each Team to critically analyse and reformulate their list of priorities in terms of constraints and limitations on resources in their own district.	40 minutes (9:30 a.m. - 10:10 a.m.)	P5 P6
c. Planning constraints	Present the concept of Community-based Health Care and its relation to the policy of decentralization. Refer to P14 as well as to a successful CBHC pilot program that already operates in Kenya.	20 minutes (10:10 a.m. - 10:30 a.m.)	P14
d. Planning priorities			
e. Goals			
f. Measurable objectives and targets			
g. Community-based Health Care			

OBJECTIVE	INSTRUCTIONAL ACTIVITIES	DAY/TIME	INSTRUCTIONAL RESOURCES
3.3 To help participants learn how to develop and write:	Show the participants how to conduct a cost analysis of the first item on the list of priorities.	30 minutes (11:00 a.m. - 11:30 a.m.)	P7 Costing data for Health Services
3.1 A work plan			
3.2 "			
3.3 "	Discuss the content of P8 and determine whether or not any priorities need to be re-ordered.	15 minutes (11:30 a.m. - 11:45 a.m.)	P8
3.4 "			
3.5 "			
3.6 "			
3.7 "			
3.8 "	Lead the participants to distinguish between goals, objectives, and targets; note application to Makutano; apply to practice examples.	135 minutes (11:45 a.m. - 3:15 p.m.)	P9 In Appendix or Trainer's Guide: 1. Verb list 2. Practice Examples
3.9 "			
3.10 "			
	Ask the participants to finalize problem statement. Then, using Planning Activities Checklist, systematically respond to items 2 through 12 (but no further).	60 minutes (3:30 p.m. - 4:30 p.m.)	
	Help the participants to distinguish between activity/time charts which use milestones (events), and activity/time charts which use networks; study use of time chart in Makutano example; establish time sequenced activity list for Team problem; translate list into activity/time chart.	<u>Wednesday</u> 60 minutes (8:30 a.m. - 9:30 a.m.)	P10 (There is a need to develop an example that makes milestone numbers meaningful.)

OBJECTIVE	INSTRUCTIONAL ACTIVITIES	DAY/TIME	INSTRUCTIONAL RESOURCES
3.5 Identify, differentiate and describe key elements of: <ul style="list-style-type: none"> <li>a. A health information system</li> <li>b. A community-based health care system</li> </ul>	On Systems Analysis read P11. Discuss key terms. Study application to Makutano.	60 minutes (9:30 a.m. - 10:30 a.m.)	P11 (Work out a Systems Chart of Makutano)
3.6 Organize, implement and evaluate a quality assurance program: <ul style="list-style-type: none"> <li>a. Define a problem</li> <li>b. Appoint a quality of care committee</li> <li>c. Develop criteria</li> <li>d. Set standards</li> <li>e. Set performance levels</li> <li>f. Monitor performance</li> <li>g. Implement steps to correct any deficiencies found</li> <li>h. Report to District Health Management</li> </ul>	Present a lecture on the theory of evaluation based on the first two pages of P12. Provide clear health related examples of each concept.  Go on to show that evaluation must occur at every stage of planning and implementation as discussed in P12, focus on the following steps: <ol style="list-style-type: none"> <li>1. Review the project with special emphasis on goals and objectives.</li> <li>2. Plan the evaluation</li> <li>3. Review the evaluation plan</li> <li>4. Estimate the reliability of the information obtained.</li> <li>5. Conduct a field-level evaluation.</li> <li>6. Review, analyze, summarize, and interpret data.</li> </ol>	180 minutes (11:00 a.m. - 3:15 p.m.)	P12 CS10 Evaluation Planning Sheet

OBJECTIVE	INSTRUCTIONAL ACTIVITIES	DAY/TIME	INSTRUCTIONAL RESOURCES
3.6 (Continued)	<p>Lead the group in a review of the evaluation plan associated with the Makutano case study. Note that this plan is consistent with the criteria specified in P12.</p> <p>Tell the group that each team will be asked to elaborate an evaluation plan and that they should be guided in doing this through the use of P12, CS10, and the Evaluation Planning Sheet. Ask them to suggest a goal, some related objectives, a procedure that could be used for evaluating the degree to which each objective was accomplished, a suggestion of the person who should be responsible for conducting this evaluation, and the deadline for completing the evaluation. (Ignore the subject of "Performance Standards," for the moment.)</p>	60 minutes (3:30 p.m. - 4:30 p.m., plus evening, if necessary)	P1 through P12 Case Study Planning Checklist Evaluation Planning Sheet
3.7 Identify, list, and evaluate critical elements of an implementation plan.	<p>In work groups, continue the elaboration of project plans. Begin where left off on the previous day. Continue through Step 16 of the Planning Checklist. (Ignore subject of "Performance Standards until Thursday.)</p>		

OBJECTIVE	INSTRUCTIONAL ACTIVITIES	DAY/TIME	INSTRUCTIONAL RESOURCES
3.7 (Continued)	Lead participants in a discussion of performance standards with emphasis on the content of P13.	<u>Thursday</u> 60 minutes (8:30 a.m. - 9:30 a.m.)	P13 CS7 CS11 CS12
	Note the application of the principles of performance standards in the Makutano Case Study (CS7, 11, 12).		
	Use P15 to illustrate the types of information that can be collected. Emphasize that the <u>purposes</u> for collecting health data are: 1. To describe the existing conditions 2. To identify areas in need of improvement. 3. To justify plans for health related projects. 4. To demonstrate the benefits that flow from a given health project	165 minutes (9:30 a.m. - 12:45 p.m.)	P15 Case Study
	Examine the data in the Case Study and identify the purposes for which the data are presented there.		
	Encourage the participants to use P15 in determining the data they will collect for their project and the reasons for collecting it.		

OBJECTIVE	INSTRUCTIONAL ACTIVITIES	DAY/TIME	INSTRUCTIONAL RESOURCES
	Present a lecture using P16 to help participants to understand budgeting procedures in Kenya. Also use the figures in the "B" section. Emphasize the difference between a <u>development</u> budget and a <u>recurrent</u> budget. Similarly, differentiate between an <u>annual</u> budget and a <u>forward</u> budget.	1 hour 15 min. (2:00 p.m. - 3:15 p.m.)	P16 B3 B3.2
	Study the budgeting example in the Case Study. Emphasize that this is the format they must use in tabulating the budget for their project.		CS12
	In work groups, apply this procedure to the elaboration of each group's budget. Please justify each line item.	60 minutes (3:30 p.m. - 4:30 p.m.)	
3.7 Identify, list, and evaluate critical elements of an implementation plan	Reinforce the relationship between planning and implementation. Participants should be instructed to read P17 for homework the night before the class. Each team writes a summary of their work plan.	<u>Friday</u> 60 minutes (8:30 a.m. - 9:30 a.m.)	P17
3.8 Describe and justify a new project or programme sufficiently well to win its acceptance at national, provincial, district, and community levels.	Review the overall planning and evaluation process with emphasis on refining district team health care plans.	120 minutes (9:30 a.m. - 12:00 noon)	District Team Workplans

OBJECTIVE	INSTRUCTIONAL ACTIVITIES	DAY/TIME	INSTRUCTIONAL RESOURCES
3.8 (Continued)	Each team gives a progress report and summary proposal for work during phase II (See TC4 Health Management Course Overview)	120 minutes (12:00 noon - 3:15 p.m.)	
	Distribute forms and instruct participants in completing their evaluation of the course.	60 minutes (3:30 p.m. - 4:30 p.m.)	Participant's Assessment form (See Trainer's Guide)

## 5.0 EVALUATION GUIDELINES

The major purposes for evaluating the course are, 1) to obtain information regarding how the trainees viewed the instructional activities; and, 2) to assess the administrative methods used to conduct the course. Three evaluation instruments, entitled "DHPT Performance Checklist," "Trainers Assessment," and "Trainee's Assessment," are provided on pages 33 - 42 of this section.

The data collected by use of these forms should be summarized in writing. This summary, along with copies of the completed forms will constitute an evaluation package which may be used by those who will be responsible for monitoring the training and making revisions in the course. This evaluative input will be extremely important for those purposes.

Many of the questions shown on these forms may also need to be revised once judgements have been made regarding the various respondent's ability to understand the intent of questions and to answer in a manner that will assist the trainer and course administrators. Unclear or inappropriate questions should be eliminated or restructured after the evaluation instruments have been used once or twice.

The complete evaluation process should take no more than three hours, and should be supervised by an evaluator or other educational coordinator for the course.

The "Performance Checklist" should be used to monitor trainee progress and identify problem areas as the course proceeds. The Checklist should then be used again at the end of the course as part of the final evaluation activities.

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\*Do not write on "master copies." Duplicate forms in the quantities needed for distribution.

The "Trainee Assessment" form should be administered on the last day of training to obtain trainees' views about the administrative and instructional methods used to conduct the course.

When the evaluation forms have been completed, collected and summarized, submit them to the appropriate office as designated by the MOH for review.

DISTRICT HEALTH PLANNING TEAM  
PERFORMANCE CHECKLIST

District Health Planning Team: \_\_\_\_\_

Date of Evaluation: \_\_\_ / \_\_\_ / \_\_\_ Evaluator: \_\_\_\_\_

Instructions to the Trainer:

The following checklist describes the tasks the District Health Planning Teams (DHPT) has been expected to follow in preparation (during Phase I) for, and completion (during Phase II) of the Plan which will solve the problem assigned by the PMO.

Please rate the team's ability to perform each task by placing an (X) in the space that represents the degree to which you have observed the described tasks. The basis for making judgment are given below:

1. The team has not performed this task.
2. The team is often reminded to perform this task.
3. The team is occasionally reminded to perform this task.
4. The team performs this task adequately with few reminders.
5. The team always performs this task accurately.

Planning and Implementation Tasks

1. Reviews planning assignment and indicates further clarification needed.

\_\_\_\_\_  
1      2      3      4      5

2. Reviews existing health services in the area.

\_\_\_\_\_  
1      2      3      4      5

3. Ascertains needed demographic or vital data.

3.1 Population

\_\_\_\_\_  
1      2      3      4      5

3.2 Death Rate

\_\_\_\_\_  
1      2      3      4      5

3.3 Birth Rate

\_\_\_\_\_  
1      2      3      4      5

- 3.4 Morbidity & Mortality Rates
- 1    2    3    4    5
- 3.5 Disease & Accident Incidence
- 1    2    3    4    5
- 3.6 Ascertains reliability of existing data for planning purposes
- 1    2    3    4    5
- 3.7 Ascertains additional data needed and how it can be obtained
- 1    2    3    4    5
4. Estimates time required and resources needed to complete the planning assignment
- 1    2    3    4    5
5. Arranges to meet with PHPT to:
- 5.1 Receive feedback
- 1    2    3    4    5
- 5.2 Obtain needed clarification
- 1    2    3    4    5
- 5.3 Request additional resources needed to complete planning task
- 1    2    3    4    5
6. Reconvenes at the district level and assigns detailed responsibilities to individual team members to obtain detailed information needed to complete the planning task (i.e., demographic and vital data; equipment and supply needs; number and type of staff needed, etc.)
- 1    2    3    4    5
7. Reviews Constraints
- 1    2    3    4    5
8. Identifies needs for intersectoral cooperation and presents the problem and background information obtained to the DDC for information and guidance.
- 1    2    3    4    5
9. Systematically analyzes available resources and outlines various possible solutions to the problem(s)
- 1    2    3    4    5

10. Works out a cost benefit analysis

1   2   3   4   5

11. Prioritizes solutions according to resources available

1   2   3   4   5

12. Defines goal(s) and formulates specific objectives and targets

1   2   3   4   5

13. Identifies and reviews relevant performance standards

1   2   3   4   5

14. Develops Activity/time chart (GANTT Method)

1   2   3   4   5

15. Develops a work plan

1   2   3   4   5

16. Plans the evaluation

1   2   3   4   5

17. Develops an information system indicating specifically, method(s) of recording, retrieving and disseminating data

1   2   3   4   5

18. Prepares a budget

1   2   3   4   5

19. Justifies the budget

1   2   3   4   5

20. Plans the implementation

1   2   3   4   5

21. Prepares a summary of the plan, not to exceed two typed pages

1   2   3   4   5

### TRAINER'S ASSESSMENT

The activities as listed below, respond to the sequence of course "Instructional Activities," as shown in the Instructional Guide. In the third column, please indicate the actual time required for completion of each segment. The fourth column has been provided for you to make necessary and appropriate comments. Those items on which you feel you would like to make comment should be noted in the column. Your detailed comments regarding those items should then be provided on a separate page if need be. Include your observations and findings regarding the adequacy/inadequacy of the materials, your own presentation/discussion, the trainee's response to the session, etc.

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Activity	Estimated Completion Time	Actual Completion Time	Trainer's Comments
- Welcome	1 hour		
- Overview	1 hour		
- Statement of Problem	1 hour 45 minutes		
- Discussion - Health Planning Process	1 hour 15 minutes		
- Theory and Reading Assignment - Case Study	60 minutes		
- Checklist	60 minutes		
- Discussion - Problems and Priorities	20 minutes		
- Justifying priorities	40 minutes		
- Reformulate priorities	40 minutes		
- Community-based Health Care	20 minutes		
- Cost analysis	30 minutes		
- Discussion - P8	15 minutes		

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Activity	Estimated Completion Time	Actual Completion Time	Trainer's Comments
- Goals, objectives, and targets	2 hours 15 minutes		
- Work Groups (Wednesday)	60 minutes		
- Activity Time Charts	60 minutes		
- Systems Analysis	60 minutes		
- Evaluation	3 hours		
- Performance Standards	60 minutes		
- Information and data collection	2 hours 45 minutes		
- Budgeting	1 hour 15 minutes		
- Implementation	60 minutes		
- Plan justification	4 hours		
- Course Evaluation	60 minutes		

PARTICIPANTS' ASSESSMENT OF THE COURSE

Instructions:

Please respond to the following assessment questions by selecting responses and writing comments that best represent your experiences during this training program.

1. Do you feel that you were adequately informed about this health planning course before you came?

Yes \_\_\_\_\_ No \_\_\_\_\_

If not, what information would you have liked to have received?

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2. Place a check in the space provided that represents your reactions to the following program activities:

Activity	Valuable		Amount of time scheduled		
	Yes	No	Adequate	Too Much	Too Little
a. Welcome and Introduction of Team Members	_____	_____	_____	_____	_____
b. Overview	_____	_____	_____	_____	_____
c. Statement of Problem by each team	_____	_____	_____	_____	_____
d. Teaching Philosophy and Learning Methods	_____	_____	_____	_____	_____
e. The Value of Planning	_____	_____	_____	_____	_____
f. Case Study Review	_____	_____	_____	_____	_____
g. Cost Analysis	_____	_____	_____	_____	_____

Activity	Valuable		Amount of time scheduled		
	Yes	No	Adequate	Too Much	Too Little
h. Priority Setting	___	___	___	___	___
i. Goals, Objectives and Targets	___	___	___	___	___
j. Activity/Time Chart (Work Plan)	___	___	___	___	___
k. Systems Analysis	___	___	___	___	___
l. Evaluation	___	___	___	___	___
m. Performance Standards	___	___	___	___	___
n. Health Information Systems	___	___	___	___	___
o. Budget Formulation	___	___	___	___	___
p. Budget Justification	___	___	___	___	___
q. Developing Work Plan Summaries	___	___	___	___	___
r. District Health Planning Team Presentations	___	___	___	___	___
s. Work Group Sessions	___	___	___	___	___

3. Which two topics/aspects of the health planning course do you feel were the most valuable?

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4. Which two topics/aspects of the health planning course could be improved?

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5. Which two aspects of the overall administrative arrangements and support in this programme were most valuable?

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6. Which two aspects of administrative support could be improved?

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7. Do you feel that the instructor(s) were adequately prepared to present the information they provided?

Yes \_\_\_\_\_ No \_\_\_\_\_

8. Were the instructional materials you received appropriate and adequate for the instruction you received?

Yes \_\_\_\_\_ No \_\_\_\_\_

9. Were the instructors available when needed or as scheduled?

Yes \_\_\_\_\_ No \_\_\_\_\_

10. Was the information provided by the instructors presented in a clear, concise and understandable manner?

Yes \_\_\_\_\_ No \_\_\_\_\_

11. Were the goals and objectives for this health planning course clearly explained to you?

Yes \_\_\_\_\_ No \_\_\_\_\_

12. Did the course content adequately cover the course objectives?

Yes \_\_\_\_\_ No \_\_\_\_\_

13. Were the facilities and equipment provided for the course adequate?

Yes \_\_\_\_\_ No \_\_\_\_\_

14. I will be able to plan my health care activities better because of this course.

Yes \_\_\_\_\_ No \_\_\_\_\_

15. Although a certain amount of pressure and stressful activity is expected during any training course, in this course stress could be reduced by:

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Supplement

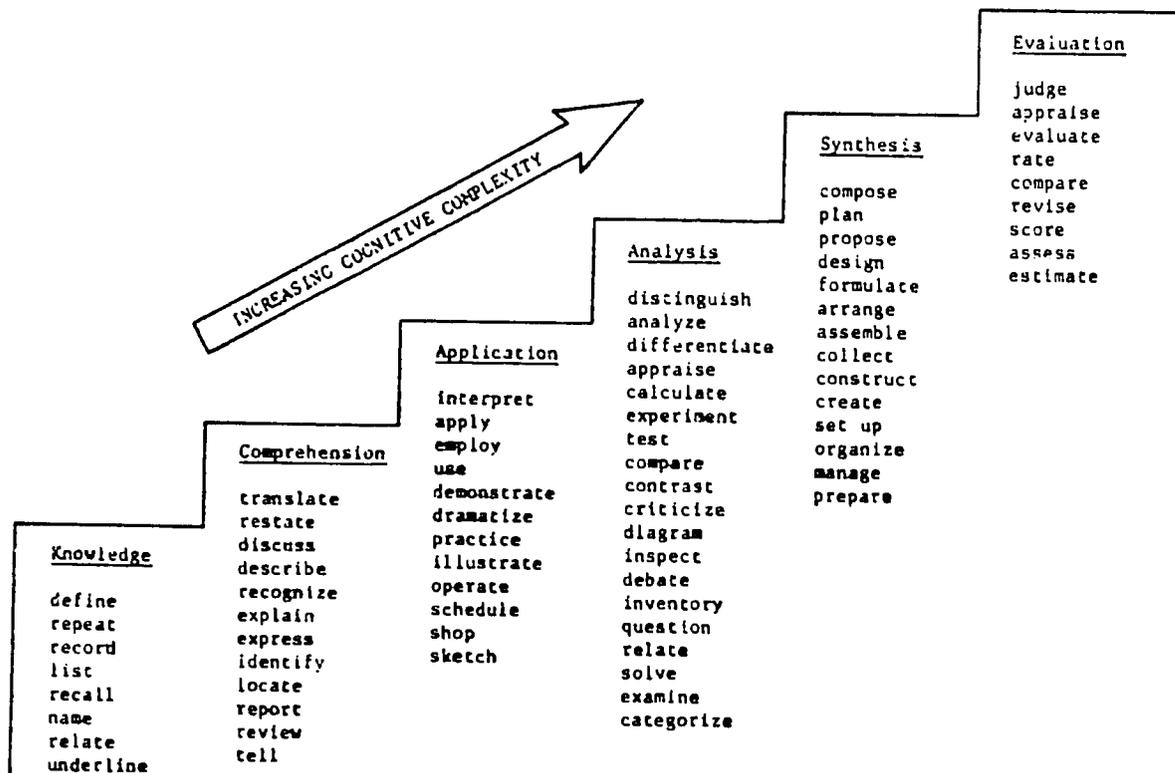
SELECTED READINGS ON LEARNING/INSTRUCTIONAL THEORY

64 / Ways to Improve Your Self-Instructional Unit

4. Analysis (to *examine* a complex communication and break it down into its parts)
  - Learner will compare and contrast the political viewpoints of two newspaper columnists.
  - Learner will decide the steps needed to solve an arithmetic problem.
5. Synthesis (to *put together* information in a *unique* or novel way to solve a problem)
  - Student will construct a physical geography map.
  - Student will produce a plan for political action.
6. Evaluation (to make a *judgment* about something in light of some criteria)
  - Learner will evaluate the paintings and select the one most appropriate for display
  - Student will decide if the poem meets standards for Haiku poetry.

The following chart may be helpful to show verbs for different higher orders of objectives. Using these verbs does *not* guarantee a higher-order objective—but it may help.

Some Possible Verbs for Use in Stating Cognitive Outcomes\*



\*Compliments of Marybelle Savage.

## VERB LIST FOR WRITING EDUCATIONAL OBJECTIVES

### Knowledge

cite	recite
count	recognize
define	record
draw	relate
identify	repeat
indicate	select
list	state
name	tabulate
point	tell
quote	trace
read	write

### Comprehension

associate	express
classify	extrapolate
compare	interpret
compute	interpolate
contrast	locate
describe	predict
differentiate	report
discuss	restate
distinguish	review
explain	translate
estimate	

### Application

apply	predict
calculate	practice
complete	relate
demonstrate	report
dramatize	restate
employ	review
examine	schedule
illustrate	sketch
interpret	solve
interpolate	translate
locate	use
operate	utilize
order	

### Analysis

analyze	distinguish
appraise	experiment
contract	infer
criticize	inspect
debate	inventory
detect	question
diagram	separate
differentiate	summarize

### Synthesis

arrange	integrate
assemble	manage
collect	organize
compose	plan
construct	prepare
create	prescribe
design	produce
detect	propose
formulate	specify
generalize	

### Evaluation

appraise	measure
assess	rank
choose	rate
critique	recommend
determine	revise
estimate	score
evaluate	select
grade	test
judge	

TABLE 1  
An Annotated Cognitive Domain Taxonomy\*

This classification describes, from simplest to most complex, six degrees to which information that is taught can be learned.

1. **Knowledge.** *Recalling information pretty much as it was learned.*  
In its simplest manifestation, this includes knowledge of the terminology and specific facts—dates, people, etc.—associated with an area of subject matter. At a more complex level it means knowing the major sub-areas, methods of inquiry, classifications and ways of thinking characteristic of the subject area, as well as its central theories and principles.
2. **Comprehension.** *Reporting information in a way other than how it was learned in order to show that it has been understood.*  
Most basically this means reporting something learned through an alternative medium. More complex evidence of comprehension involves interpreting information in "one's own words" or in some other original way, or extrapolating from it to new but related ideas and implications.
3. **Application.** *Use of learned information to solve a problem.*  
This means carrying over knowledge of facts or methods learned in one specific context to completely new ones.
4. **Analysis.** *Taking learned information apart.*  
Analysis means figuring out a subject matter's most elemental ideas and their interrelationships.
5. **Synthesis.** *Creating something new—and good, based on some criterion.*  
This creation can be something that communicates to an audience, that plans a successful goal-directed endeavor, or that subsumes a collection of ideas within a new theory.
6. **Evaluation.** *Judging the value of something for a particular purpose.*  
This means making a statement of something's worth based either on one's own well-developed criteria or on the well-understood criteria of another.

\*Adapted from *TAXONOMY OF EDUCATIONAL OBJECTIVES: The Classification of Educational Goals HANDBOOK 1: Cognitive Domain*, by Benjamin S. Bloom, et al. Copyright ©1956 by Longman Inc. Previously published by David McKay Company, Inc. By permission of Longman Inc.

In those cases where you as evaluator are asked to offer an opinion of the quality of the program's aims themselves, you might use the taxonomies as a guide in formulating your response. Ask yourself:

- Does the program contain a sufficient number of high-level objectives, given its time frame and the group of students for whom it is intended?

TABLE 2  
An Annotated Affective Domain Taxonomy\*

This classification describes the various ways in which a person might display an attitude about something. A good way to think of this list is as a progression in the person's willingness to have some phenomenon (an event, a body of subject matter, a person, etc.) affect him. The list describes levels of behavior from barest exposure to deep involvement.

1. **Receiving.** *Paying attention.*  
Most basically, this means just knowing that something exists or is going on. It also includes alert watching and listening.
2. **Responding.** *Active exploration or participation.*  
At base, responding means not-necessarily-enthusiastic willingness to take part in something. A more developed manifestation includes satisfaction, pleasure, or even pursuit of a certain activity, person or thing.
3. **Valuing.** *Consistent behavior showing positive regard for something.*  
This might mean behavior in keeping with advice from others about the right—but not necessary pleasurable—route to a desired goal. At a deeper level, it involves commitment, expression of a particular point-of-view, and assuming responsibilities.
4. **Organization.** *Building and behaving according to a single set of life principles.*  
Organization includes holding consistent points-of-view about many aspects of life, without contradictions or conflict.
5. **Characterization by a value or value complex.** *Being predictable.*  
This means showing a strongly detectable—and effective—pattern of growth or adjustment to life in general.

\*Adapted from *TAXONOMY OF EDUCATIONAL OBJECTIVES: The Classification of Educational Goals: Handbook 2: Affective Domain*, by David R. Krathwohl, et al. Copyright ©1964 by Longman Inc. Previously published by David McKay Company, Inc. By permission of Longman Inc.

**Principle No. 3: Objectives may be written for a whole program as well as for individuals**

You have probably noticed that sometimes objectives refer to goals for a whole program. For instance:

Eighty percent of the students shall score above the 50th percentile on the Iowa Test of Educational Development.

This objective does refer to observable student behavior—test-taking—which is specified in detail in the manual for the administration of the test chosen for the program.