

Lesson plan

Objectives: At the end of this lesson you shall be able to

- explain what is lesson plan and its necessity for teaching/training
- List the advantages of lesson plan
- analyse the four step method followed for vocational Training (Craftsman Training System)
- explain the elements in all the four steps of lesson plan format
- define instruction, objectives
- explain instructional objectives/behavioural objectives
- list the verbs (action words) used to write as objectives for specific kind of learning outcomes
- list the keypoints for lesson plan preparation.

Introduction

Lesson plan is the guidance plan for the Instructor. It is like a roadmap on a journey to reach a destination with the help of lesson that he can conduct classes and teach his subject in a sequential / methodical manner, thereby making it easy for the learner to understand and maintain interest and attention. It is actually a plan for action, and it contains the important information to be imparted about a lesson (subject) in the class and other activities to be followed during the presentation step. Careful planning is the foundation of all good teaching and learning activities.

Necessity of planning a lesson

- Since the Instructor has to teach the prescribed course, if there is no planning he cannot teach the entire course content in time. It is therefore necessary to plan a lesson.
- The Instructor has to achieve some definite results by teaching. If a lesson is taught according to lesson planning, the teacher can teach well.
- Teaching in an improper manner will not bring the desired results. If no aim is fixed, it will be useless to teach a lesson.
- When a teacher/trainer is prepared to teach a lesson, he enters the class with some definite aim.
- He is self confident that he will teach a lesson well he need not depend on his memory.
- He is also prepared to face the learners and answer their probable questions.
- He is able to solve any problem regarding the lesson to be taught.
- He finishes the lesson according to the plan in the prescribed time and schedule.
- It is therefore very much necessary to plan a lesson. In this way, much teaching can be done in time.

Advantages of Lesson plan

The following are the main advantages of lesson plan

- Organization of the subject.
- Much time saved.
- Work is done in a planned manner.
- Selection and utilization of suitable teaching aids properly.
- Unnecessary teaching is avoided.
- Suitable atmosphere is created.
- Lesson plan form the 'record of teaching - learning activity'

Organization of the subject

- By lesson planning, the instructor knows what he has to teach and how he has to teach. He selects the suitable subjects and lessons for teaching; lesson plan serves to organize the whole activity in a smooth way.

Much time saved

- The Instructor knows what he has to teach in a class. He teaches only that much to the learners in the class. He teaches necessary things only. He does not teach what is not necessary. In this way the teacher teaches much in less time. Also unnecessary teaching is avoided which saves instructional time. Thus, much time is saved.

Work is done in a planned manner

- The Instructor begins a lesson in a suitable manner. He develops the lesson in a planned manner. He asks the trainees to do oral or written work in a planned way. The Instructor divides his time according to the needs of the trainees. He is also able to examine the work done by the trainees. All work is finished according to the plan.

Selection and use of teaching aids

- In order to create multi sensation to the learners to understand the importance of the lesson the instructor plans, prepares or selects suitable teaching aids and utilizes them at appropriate situations by making spot hints on the lesson plan itself.

Unnecessary teaching is avoided

- If teaching is done without any plan, there are chances that the teacher may teach unnecessary things to the trainees. If there is a lesson planning, the Instructor teaches the necessary things only.

Suitable atmosphere is created

- By lesson planning, the Instructor creates a suitable atmosphere for teaching and learning. The trainees learn the lesson, which is taught to them in a period. The trainees know that they have learnt the lesson in a fixed period. So that they learn it well.

Lesson plan forms a record of teaching learning activity

- All the Instructors are expected to carry out the teaching activity effectively for each session. Therefore, once prepared lesson plan for a batch is preserved as a permanent record of teaching - learning activity. Depending upon the changes in syllabus if any, the content can be modified as and when required.

Four step method

Today the standardized system, being followed in the field of vocational training, is called as the four step method. It is originated from the German Philosopher and Educationist Herbert. He gave new ideas about teaching method.

Herbert's ideas were later on put into use for teaching technical subject as the following four step method

- Preparation (introduction / why.)
- Presentation (development/ demonstration.)
- Application (recapitulation / imitation.)
- Test/evaluation (Consolidation / repetition)

Thereafter in Germany, USA, and other advanced countries the above Four Step method has been followed. Today this method is considered as one of the effective methods for skill training. Now let us go in detail about what exactly to be considered by each step of this method.

Preparation

This step includes both Instructor preparation as well as trainee's preparation.

Preparation of Instructor: In this step instructor has to prepare him (self), lesson plan (or demonstration plan) for using at the time of presenting the theoretical knowledge (or practical skill). While planning a lesson the instructor should follow certain points as given below:

- Title of the lesson.
- Specific teaching objectives.
- Preparation of teaching aids.
- Review of previous lesson.
- Appropriate motivation.
- Choosing of teaching method.
- Planning for trainees's participation.
- Time and feedback activities.
- Proper summarizing
- Assignment and test.

The Instructor should also prepare other important items such as teaching aids, wall chart / transparency, models /actual object, written instructional material etc.

Arrangement of classroom (Workplace)

Besides planning of the lesson, preparation of the classroom (or workshop) where lesson will be conducted is also necessary for a successful teaching. For preparation of the classroom the following points are to be considered:

- Seating:** There should be adequate number of seats and the same should be arranged properly so that the instructor can supervise learner.
- Lighting and ventilation:-** Suitable and adequate lighting and ventilation should be arranged for the entire class room space.

Layout

Layout of the demonstration bench and their positioning should be done properly. Thus the trainees get maximum visibility while attending the demonstration.

Equipment and materials

The equipment and materials which are necessary for conducting the class should be arranged before hand. This will also be included under the teaching aids.

Removal of distracting items

The items which are distracting, i.e irrelevant to the lesson, such as unwanted charts, chalk board reading, pieces of equipment for future lesson should be removed from the classroom Otherwise, attention of the trainee may be diverted.

Safety equipment

The Instructor should see that the safety equipment is ready and serviceable because the safety of trainees and equipment is full responsibility of the Instructor.

Trainee preparation

Before any new information (knowledge) is being given to the trainees, the Instructor has to prepare trainee's mind to receive the new information. There is a principle which states that, unless the learner is ready to learn he will never learn. So the Instructor has to make ready the learner's mind before giving any new information.

For this, the Instructor has to motivate and review the previous lesson and then he can tell the importance of application of new information to be learnt by them. In this step, the Instructor has to apply the Laws of learning such as the Law of readiness and the Law of purpose. It is therefore, considered absolutely essential to make all necessary preparations before teaching a new lesson.

Step 2: Presentation

After the trainees are prepared to receive the lesson, the subject is taught. According to this step, care should be taken to present the subject before the trainees in a logical, systematic, and effective way.

The Instructor should begin teaching a lesson slowly after giving an introduction of the lesson, and after associating with the subject or lesson already taught. The Instructor should explain the difficult subject and objective so that the trainee may not feel any difficulty in understanding the lesson.

The Instructor should use very simple language in teaching the subject. The subject should be divided into several objectives and each objective explained thoroughly. If the whole subject is taught as one, it will be difficult for the trainees to understand it in detail.

The Instructor should tell about the subject which is proposed to be taught and then explain or teach about the various aspects of the matter in greater detail. This will enable the trainees to learn well.

The Instructor should ask questions from the trainees in order to know whether the trainees understand the lesson being taught. If the subject is presented to the trainees, but if the trainees do not understand it, then it will be useless to teach. The Instructor should therefore find out by asking questions or through some other means whether the trainees understand the lesson being taught.

During this step the following points should be kept in mind

- Follow the lesson plan.
- Develop the topic in a logical order.
- Make use of the teaching aids such as wall charts, models, actual objects, chalk board, and other audio-visual aids effectively.
- Use questions to

- a stimulate the learner's thinking - (introductory review questions)
- b Check the understanding and to develop the subject (Development questions)
- c Encourage the learner to ask questions (application questions)

Step 3: Application

When the trainees have attained some knowledge in the manners stated above it is necessary that they should use/apply that knowledge in their practice. The trainees attain theoretical knowledge by learning in the above manner. But, that knowledge is considered to be incomplete unless it is put into practice. So according to this step, the trainees have to practice the theoretical knowledge gained and then make that knowledge permanent. The Instructor should give chance to the trainees to use and put their knowledge in actual practice.

The Instructor has to ask certain questions from the subject matter dealt/taken in the class. He has to guide, correct, and encourage the learners in telling the correct answer for the questions. In this step, the Instructor has to apply the Law of exercise for the perfect knowledge or skill attainment. After completion of question answer session, the instructor has to summarize all the points - but, emphasizing the key/ important points only.

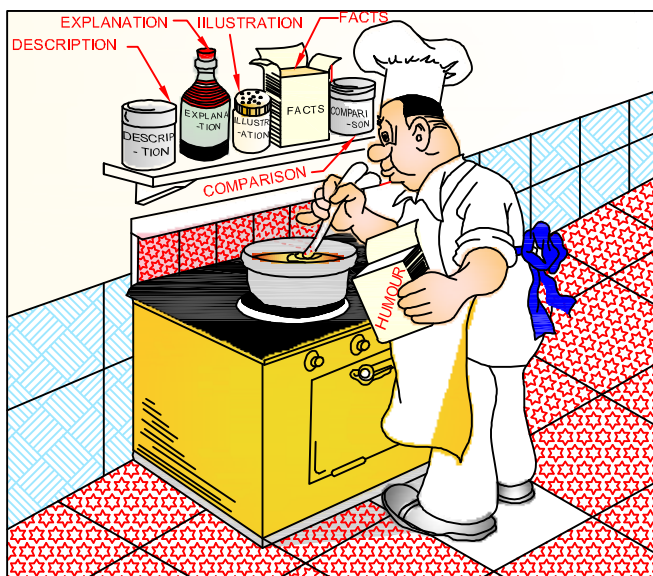
Step 4: Test

This is the step at which the effectiveness of learning will be measured. Teaching will be completed when test is conducted. The result of this step will help the Instructor to decide whether his teaching was effective or not.

Test can be conducted by giving/assigning questions out of the subject matter covered in the class. During this step the learners will answer to the questions comprehensively by written answers, drawing diagrams, also solving problems as their own that is without anybody's help.

This is the only way by which the learner knows his ability and develops confidence in the subject. (Skill test can be conducted by performance/ practice so as to grade the achievement of the learner in this step). The Instructor has to apply the Law of satisfaction by which they will get interest for further learning. The validity, reliability and objectivity should be observed while constructing and conducting the test.

At the time of planning and preparing the lesson plans, the Instructor has to include the facts, descriptions, Explanations, comparisons, Illustrations about the subject matters as well as humour also in the proper proportion like the same way a cook prepares a delicious food (Fig 1)



The specimen lesson plan format being utilized for vocational training is shown below, in which all the four steps of activities and preparations to be made by the Instructor are explained in the following paragraphs.

The detailed description of all the elements of Lesson Plan format is explained below

The major components of 4 step of a lesson plan are

- Preparation step
- Presentation step
- Application step
- Testing step

Elements in the four steps of lesson plan format

Step 1: Preparation

Title

This indicates the name (core idea) of the lesson clearly

Objectives

There are some specific purpose for teaching a lesson which we call objectives. These should be clearly stated in terms of what the learner is expected to learn from this lesson. In each, there may be about 3 or 4 closely related objectives. If the objectives are more, the chances are that the matter to be covered may be too much for the learner and if the objectives are too few there may not be sufficient material for the learner to be interested in during the period of 45 minutes to 60 minutes normally.

Teaching Aids

Learning becomes easier, interesting and deeper, when multiple senses of the learners are employed/involved. Further, in the training of craftsmen, the instruction is almost always on matters such as tools, materials, machines

and processes all of which can be depicted through the actual objects, or through charts, models, films, film strips, slides, or by other manner which would help the learner to see besides listening to the instructor. Such items that the instructor has selected, prepared and planned to use in the class to help the presentation and aid the learning of the lesson are listed here. The instructor will see that all these items are available and ready in the class for use before the class assembles.

Introduction

This is the stage at which the learners are prepared for the lesson of the day. There are five types of introduction as

- Revisionary or review
- Anecdote
- Analogy
- Topical
- Shock

Method of introducing the new lesson in the class must be written briefly. Depending on the subject matter of the lesson and its relation to previous lesson, you have to use this as a link between the known to unknown . It is the stage that effective motivation is done to in the learner and keen desire to the new lesson. Introduction does not have to be a long one. A few relevant points properly developed with realistic examples, which the learner can understand would serve the purpose. The success or failure of the presentation of a lesson would be a large extent depends in the manner in which the introduction to the lesson or preparation of the learner is done. Under review and motivation only brief notes are to be written in the lesson plan with the help of which you should be in a position to explain while presenting the lesson.

Review

The fact that the learners are physically present in the class does not necessarily mean that they are mentally ready to receive your presentation. Before teaching a new lesson to the class, you should make the learners to be ready or prepared to receive, the new lesson. As part of the preparation, one of the first things you have to do in a class is to discuss the important topics of the previous lesson. Here you have to write some small questions about the previous lessons to make sure that the learners have remembered what you taught in the previous class. You may tell the importance of present lesson with previous lesson by linking the main points. If the lesson is a first lesson in a class, in that case instead of linking, discuss about the relevant knowledge gained by the learners.

LESSON PLAN

Name Adm No..... Unit No..... Lesson No.....
 Trade..... Date..... Time.....

I Preparation

- 1 **Title :**
- 2 **Objectives :** At the end of this Lesson the trainee shall be able to
 - a
 - b
 - c
 - d
- 3 **Aids :**

- 4 **Introduction :**
 - i **Review :**
 - ii **Motivation :**

II Presentation (Lesson) :

Topics	Information points	Spot hints

Topics	Information points	Spot hints

III Application:

- a
- b
- c
- d

Summary:

IV Test:

Assignment:

- a
- b
- c

Next Lesson :

Motivation

Motivation is creating willingness. As an instructor, you must create interest and willingness in the minds of learners to learn the new lesson. Method of creating interest in the minds of learner to learn the new lesson must be written briefly.

Topics

The important points of the lesson as planned are to be developed with catch words written clearly so that you can refer and pickup at a glance. Complete sentences need not be written. Write selected topics according to the lesson to be taken so as to reach the aim or fulfill the objectives of the lesson. This has to be written in sequential order.

Information points

Use key words and catch words of points only to be written like telegraphic message. Write the must know information of each topic properly . Information may be written in codes, symbols and abbreviation reference to the objectives and topics as convenient/familiar.

Spot hints

You need to enter spot hints in the appropriate place. Write hints such as codes, symbols or simple diagrams to attract the learner's attention and make the instruction as effective as possible. Hints can be given through charts, models or abbreviations that can make you convenient or familiar, that your efforts are directed towards better teaching. For instruction at a particular stage of development of the lesson a chart is to be shown, may be indicated as "w/c" or "c" and asking a question by "A/Q" or "?" as key word as the entire plan is made and used by you in the presentation stage. Display of teaching aids in an appropriate time is very important.

Application

Learning takes place only when the learner has an opportunity to apply the acquired knowledge to various situations. Necessary time for applications of knowledge may not be available in the class during presentation. Hence the manner in which such opportunities are provided in respect of the subject matter covered in the lesson must be stated in the application stage. Ask simple and direct questions related to the topics. This is an opportunity for the learners to answer the questions and showing their level of understanding. You may clarify the learners doubt. Interact with them. After questioning, remember to receive the answer (yes,yes, nodding your head, etc) Reward the answer (good, very good, etc), and repeat the answer.

In practical demonstration, the instructor has to ask the learners to initiate the steps followed during the demonstration. Write simple questions to make the learner to involve in that particular activities.

Summary

After the above steps and interaction, you may feel good that your learners followed your instruction, and understand the lesson. Now this is a time to sum up all the important topics of the lesson taught in the class. In the summary time, you must emphasise and reinforce the points, which are important to the lesson. Main topics of the lesson may be written under summary or you can recapitulate the main points of the lesson.

Test

At this step, comprehensive questions about the lesson taken should be asked to the learners. This can be done either by oral or in written form.

Assignment

Series of questions about the lesson already taken are to be written under assignment. Related problem, exercises, drawing of sketches including various types of questions like objective and subjective types can be given as separate assignment sheet.

Next lesson

Title of the next lesson to be taken has to be mentioned under this heading. A brief insight into the next lesson must be given to help the learners to think ahead of the subject and make them to understand better.

- Hints
- Developing questions
- Display of teaching aids in appropriate time

Learner's activities such as active participation, interaction, question and answer.

Summary it is an opportunity for you to wrap up the discussion.

Test to know the effectiveness of teaching and the understanding level of the learners.

Assignment include objective and subjective type of questions.

Reference materials information book name and author's name.

Topic for next lesson

Feedback

Instruction

It is a goal directed teaching process which is pre-planned. It is always necessary to identify the pre-determined goals and objectives to be achieved.

Instructional objective

It is the description of the form of the behaviour that instruction is to produce, stated in terms of what the trainee (learner) is to be able to perform (do-explain, describe, discuss, solve) the conditions under which the action is taken and where appropriate, a standard of accuracy or speed. The behaviour described or its consequences should be observable and measurable.

Objectives direct attention to the learner and the types of behaviour they should exhibit. Sometimes these statements are called behavioural objectives.

Objective is a point which one aims at reaching after a certain amount of learning experience. Clearly defined objectives would not only help the teachers and learners to understand what exactly they are supposed to do, but also provide the means for evaluating their own achievements. The statement of objectives is therefore expected to be specific, measurable, achievable, realistic & time bound (The 'SMART approach') and presented in operational terms.

Ambiguous statements of objectives

While writing the objectives, statements that are not clear, vague must be avoided.

When clearly defined objectives are lacking, there is no sound basis for the selection or designing of instructional materials, content, or methods.

Instructional objectives describe the skills, knowledge, abilities or attitudes learners should possess or demonstrate after they complete the training. The starting point for designing a course of study should include these instructional objectives; the objectives determine the intended outcomes of the training. Good instructional objectives describe an observable performance, one that can be observed and measured by an instructor. In a nutshell, instructional objectives:

- Describe a skill that learners are expected to possess after instruction
- Describe a measureable performance
- Describe the performance conditions

Instructional objectives are also called as learning objectives.

Instructional objectives - important tools

Instructional objectives are important tools in the training process, as the use of precisely stated objectives often determines the nature of training methods, media and process of testing. All learning activities are classified under acquisition of knowledge, development of skills, and modification of attitudes and habits.

We are generally concerned with development of skills, but we cannot segregate skill from knowledge and attitude. For effective implementation of the programme of training and in the context of instructional design, objectives play a very important role.

Objectives

An objective is a more restricted term in scope and its finality, and in this context of learning system, it is defined as the terminal behaviour or set of behaviours the instructional designer expects the learners to display as a result of training imparted to the learner. Statement of objectives must be regarded as a vital element in any instructional planning.

A trainee enters the training situation with a certain set of behaviours - which may even be nil - towards certain stimuli. As a result of training, he comes out with a difference i.e. behavioural change and this constitutes the result of training.

This difference is usually measured through pre - testing (given at the end of training activity). Thus the behavioural changes taken place is measured through - in terms of knowledge, attitude and psychomotor skills (muscular action).

Essential ingredients of instructional objectives

Learning is a process. This process of learning is mostly internal. The effect of learning is exhibited by changes in behaviour. We infer that the learning has taken place as a result of these changes of behaviour.

Thus, objectives or instructional objectives are stated in terms of external behaviour exhibited by the learner that are measurable.

Objectives are therefore useful to decide what to learn and what to measure, to find out how much has been learnt by the learner.

A training objective must be a clear, precise statement of what a learner will be able to do at the end of training (Instruction). They are far more than goals; and must be stated ingredients in instructional objectives. They are:

Performance

Statement of what a trainee should be able to do perform at the end of the learning session. (terminal behaviour)

Condition

The objective describes the condition under which a trainee should be able to perform the task to exhibit the terminal behaviour.

Standard

The standard to which he should be able to perform (the criteria) the skill. How well the task or behaviour must be performed to meet the standard.

An example of writing objectives

"The trainee should be able to find the square root of any number, using logarithm tables, and answers correct to three significant figures, Nine times out of ten" - This is a precise statement, using unambiguous terms. This can be stated as the terminal performance that is measurable.

Many words represent either vague or ambiguous concepts and cannot be precisely measured. So, one should avoid using such words.

Ambiguous terms

Knows, understands, appreciates, grasps, enjoys, believes, have faith in etc.

Words which permit fewer interpretations

Writes, recites, identifies, distinguishes, differentiates, solves, constructs, lists, enumerates, compares, contrasts, defines, states, recognizes, demonstrates, locates, labels, measures, categorise, detects, operates, etc.

List of verbs (action Words) used to write as objectives

Related to specific kind of Learning

Specific responding

(Producing a single isolated response)

To associate	To define	To distinguish
To differentiate	To evaluate	To explain
To grasp (with hand)	To hold	To identify
To label	To lift	To locate
To loosen	To measure	To move
To name	To pick up	To place
To press	To pull	To push
To repeat	To reply	To respond
To rotate	To say	To set

To signal

To state

To turn

To slide

To tighten

To twist

To secure

To touch

Motor chaining (producing a sequence of motion)

To activate	To adjust	To align
To close	To copy	To (dis) assemble
To (dis) connect	To draw	To duplicate
To draw	To insert	To load
To handle	To measure	To mix
To open	To operate	To prepare
To remove	To repair	To replace
To stencil	To service	To state
To tune	To turn-off	To dismantle

Verbal chaining (producing a sequence of words)

To cite	To copy	To enumerate
To letter	To list	To quote
To recite	To record	To reiterate
To repeat	To reproduce	To restate
To transcribe	To type	

Discriminating (identifying two or more stimuli)

To choose	To compare	To contrast
To couple	To decide	To detect
To differentiate	To distinguish	To isolate
To judge	To match	To pick
To select		

Classifying (using concept)

To allocate	To arrange	To assign
To catalogue	To categorize	To classify
To collect	To divide	To file
To grade	To group	To index
To inventory	To itemize	To order
To rank	To rate	To reject
To screen	To sort	To specify
To survey	To tabulate	

Rule using (using principles)

To anticipate	To calculate	To calibrate
To check	To compile	To compute
To conclude	To construct	To convert

To coordinate	To correct	To deduce
To define	To demonstrate	To design
To determine	To diagram	To equate
To estimate	To evaluate	To examine
To expect	To explain	To extrapolate
To figure	To generalize	To illustrate
To monitor	To organize	To plan
To predict	To prescribe	To program
To re-project	To schedule	To solve
To translate	To verify	

Key points for lesson plan preparation

- Refer to relevant materials that are WIM, Subject books, etc collect information points for the subject matter for the lesson.
- Decide suitable title for the lesson subject of your trade.
- Select appropriate Specific objectives of the lesson with which you make your learners should be able to do certain definite activities after the lesson.
- Plan and decide your teaching steps/ method.
- Plan and prepare your information sheet, select/ prepare suitable teaching aids.
- Arrange the classroom (and demonstration) area in advance.
- Determine the review item of the previous class subject with respect to what you are going to teach the knowledge, facts by the current lesson.
- Prepare the motivating item appropriate to explain them and link the lesson what they are going to learn (objectives).
- Arrange all the key points in the logical order for learner's participation.
- Present the topics in sequence allowing for learner's participation.
- Plan lesson activity for learners (application), explain and guide them to ensure assimilation (questions, statements, discussions, problem solving etc ensure more time is used for this step.)
- Summarize the topic in sequence (questions and answers, chalk board summary).
- Check your "AIM" has been achieved and evaluate the result.
- Present the points to the learners with assistance to allow them to be perfect and attain the accuracy and also speed, you demand by practice.
- State your next lesson, and issue your information sheet or assignment sheet for further study or preparation for the next lesson.