

Lesson Planning and Preparation

Ahmad Kawesa Sengendo

Introduction

A lesson plan is a forecast on anticipated set of activities to be jointly undertaken by the teacher and the learners when it is time for the lesson. It is the road map of a teacher's journey through the lesson.

Actors. Who are the actors in the lesson planning process? The lesson planning process anticipates three basic actors. These are the teacher, the learners and the environment.

The teacher plays the role of the pilot. He has the responsibility of navigating and steering the learning plane from the point where the passengers are to the destination where the passengers want or ought to go. Although the pilot travels with the passengers, it is actually the passengers who are the objective of the flight. Like wise, while the teacher must stay with the learners throughout the lesson, it is the learners who are the objective of the lesson. It is them who must do the learning.

The route taken by the plane and the smoothness of the flight itself depends a lot on the environment. Bad weather causes flight delays and in extremely bad environmental conditions flights are cancelled altogether. Dense atmospheric air and clouds cause bumpy flights setting passengers screaming and praying. A one hour bad flight can look like eternity. Like wise, bad classroom environment can cause delays in starting lessons. A polluted classroom environment can disrupt lessons, even the best planned ones. In extreme cases lessons can be cancelled. Bumpy lessons in which the learners are forced to hold their souls in their mouths and their hearts pounding heavily as the levels of adrenaline shoot up at the sight of the mighty "master" are not un common. A forty (40) minute lesson can feel like an endless tour through hell once the learning environment is polluted. It is therefore critical that the lesson planning exercise takes into account the need to have a conducive learning environment.

The Purpose of Lesson Planning

As the saying goes, *one who does not plan, plans to fail*. The purpose of lesson planning is to put in as much effort as one can command to avoid lesson failure. In other words, it is an endeavour aimed at achieving the objectives of the lesson. It is a thoughtful effort by the teacher to map out the route he/she will travel through as he/she conducts the learners through the lesson. Suffice it to add, that a good lesson plan is not a guarantee that the lesson will be successful. Many unanticipated things may happen and make the lesson not as successful as planned. A well chosen route is no guarantee that the driver will take his passengers to the desired destination. There could be road blocks, a collapsed bridge, mechanical breakdown, and/or many other obstacles.

Lesson Planning is, however, very important because it helps teachers to avoid taking the wrong routes. It also enables teachers to choose the routes with least or no obstacles. Lesson planning gives a teacher confidence and a mental set up that is conducive for effective teaching. Advance and adequate lesson planning enables teachers to analyse some of the potential instructional problems and devise possible solutions for them. The lesson planning process enables the teacher to contemplate about the

instructional materials that will be necessary to effectively and efficiently teach the planned content. Further, lesson planning avails the teacher an opportunity to select the most appropriate methods and techniques for teaching the planned content to a given set of learners. These and many other advantages make lesson planning a pivotal component of effective teaching.

The Lesson Planning Process

The philosophical basis – The entire lesson planning process is based on the teacher's philosophy and understanding of the teaching – learning process. Questions such as what it teaching? What is learning? What is the role of the teacher in the teaching –learning process?, etc become very vital. The teacher's understanding of the purpose of education also influences his perceptions and participation in the lesson planning process. It is therefore important for each teacher to develop a clear philosophical base upon which to anchor all his/her professional activities. So, what is your philosophical disposition that guides your instructional and professional activities?

Basic guiding questions in the Lesson Planning process.

The lesson planning process aims at achieving an instructional task(s) in the most efficient and effective manner possible. It is important to remember that *"Instruction is a set of events external to the learner which are designed to support the internal process of learning"* (Gagne, 1977 b). Further, it must always be clearly understood that it is the Learner who is to do the learning. The focus of the lesson planning process is on how to help the learner to learn the planned lesson content. This process can be guided by the following questions:

- 1) Who is to do the learning? (The audience)
- 2) When is the learning to be done?
- 3) What is to be learnt? (Content)
- 4) Why that content? (Objectives).
- 5) Where will the learning take place? (Environment).
- 6) How will the learning happen? (Methodology).
- 7) What facilities are necessary for the learning to occur? (Instructional materials and references).
- 8) What background or previous knowledge is required to learn the new tasks?

The Audience:- These are the learners. In defining who is to do the learning, or who the target learners are, the following should be considered:

The School: At this stage you clearly identify the school where the learners are located. Different schools have different learning facilities, environments, cultures, time-tables, etc. The learners in different schools have different attitudes, abilities and limitations which makes them respond differently to a given learning task. Indeed, some schools are boarding while others are not, some are mixed (with both boys and girls) while others have either boys or girls only. In each of these different types of schools the challenges of teaching and learning are approached differently.

In recent times, the location of a school has become an important instructional consideration. For example, most rural schools have far less instructional facilities and generally admit less qualified pupils than urban schools. The other criterion of classification of schools is that of government-aided versus private schools. Most private schools have less facilities, especially for science teaching, than the government-aided ones. There are, of course, exceptions to these general occurrences in that some of the urban schools are far worse than some of the rural schools. Also a few of the private schools have excellent facilities far better than most government-aided schools.

The class and Stream: Once you define the school in which the teaching is to occur, then you identify the exact class to be taught e.g. S.2. If the school has more than one stream in each class or year, then you must also identify the exact stream e.g. S.2B. Each stream has a different set of learners. Therefore, even if one is teaching the same topic/content in S.2A, 2B and S.2 C in the same school, one must make a different lesson plan for each stream.

Number of Learners in Class: The number of learners in class is important in that it determines:

- (i) how many text-books are needed;
- (ii) how many hand outs are to be made;
- (iii) how many copies or sets of test/examination materials are needed;
- (iv) how many sets of equipment/apparatus to have;
- (v) how big visual aids should be;
- (vi) how many groups one can conveniently have in the classroom;
- (vii) how loud audio material should be-and whether or not an amplifying system is needed;
- (viii) the methods and approaches that are likely to be effective in delivering the content;
- (ix) the instructional exercise that can be effectively supervised or monitored during lesson; and
- (x) in the case of field trips and expeditions the transport, feeding, accommodation, and other facilities needed.

So a good lesson should clearly indicate the number of the target learners for each lesson.

Average age of the learners: Age has an influence on:

- i) what pupils are capable of learning. For example according to Piaget, pupils below the age of 14 years may have difficulty learning abstract concepts. It is also known that the learning habits and approaches of adults are different from those of youngsters. The approaches used are therefore dependent on the age of the learners.
- ii) Attention span of learners is known to increase with increase in age up to a point. In other words older pupils e.g. S5 and S.6 usually have a longer attention span than the younger ones say S.1 and S.2. How long learners remain paying attention to a learning tasks (time -on-task) depends in some ways on the age of the learners.
- iii) Some learning tasks demand a certain degree of psycho-motor skills which are developed with age. Operation of certain learning tools or apparatus may also demand psycho-motor skills. Field trips that involve hard tasks e.g. Mountain climbing may best be undertaken by old pupils than the young ones.

The above, and some other possible, reasons make it necessary for teachers to pay attention to the average age of the target learners during the lesson planning process.

In summary, a clear definition who the target learners are is very important. This is clearly understood if one keeps in mind the fact that it is the learners who are to do the learning. Therefore the whole planning process must focus on them.

When is the learning to be done? The considerations to be made in answering this question are:

- (a) **Day of the week**- Lessons that are held on Mondays and Fridays may demand different approaches as compared to those on Tuesday, Wednesday and Thursdays. The Monday and Friday lessons become even more tricky if the school holds week-end social activities that students enjoy a lot such as discos. While on Fridays many may be excited and mentally preparing for the weekend activities, on Mondays some may still be treating the weekend hangovers. Day of the week also includes indicating the exact date. This becomes especially important if one plans over a week in advance.
- (b) **Time of the day**: The teacher needs to know in specific terms, the exact time of the day when the lesson is to take place. One of the obvious reasons for this is to avoid "*collision*" with another teacher. The other reason is that the learners' mental and physical dispositions vary depending on the time of day. While learners are still fresh in the morning, many are not as mentally alert in the afternoon as they are in the morning. The methods used to teach the same group of learners the same content could vary depending on the time of the day they have to be taught.
- (c) **Duration**: This refers to how much instructional time is available within which to teach, the planned lesson content. How much time is available determines how much content can reasonably be taught in a given lesson. Hence when we are considering the time of the day when the lesson is to be taught, we have to consider when it actually starts and ends. This is what constitutes the duration of the lesson.

Besides limiting the content that can be taught, the available time (duration) also can limit the approaches that can be used. For example, in a single period lesson of 40 minutes, with a class of 70 pupils, it may not be advisable to ask them to go outside and collect three different types of flowers come back to class, form groups of fives and discuss the characteristics of each flower and produce a group report. Such a learning task could be achieved in a double lesson.

What is to be learnt? This is the content of the lesson. This includes the topic(s) and sub-topic(s). how does one decide on what content to be taught? Some novice teachers may have a problem with choosing the appropriate content to teach. This should not be a problem if the teacher has already made a good scheme of work. A good scheme of work should indicate the topics to be covered for a period of at least four to six weeks. In some cases, the teachers make schemes of work that cover a whole term.

While the scheme of work helps one to know the topic(s) and sub topic(s) to be taught, the detailed content under each topic and or sub-topic must be decided at the time of planning the lesson. One must always remember that the object of the lesson is to help

the learners learn a certain content. Therefore, we can talk of having prepared well only if an adequate amount of content has been well prepared.

Skills: It is also important to consider what skills will be developed/acquired as a result of the planned learning experiences. Skills such as drawing, speaking, writing, critiquing, etc should be provided for.

Instructional Objectives: Lesson objectives are a statement of the purpose of teaching the content. Objectives, in a sense, help the teacher to define the final destination of the planning process as well as the route to take.

"If you do not know where you are going, any route will take you there."

The above West African saying reminds us to always know where we want to go. If we do not, any route will take us there – where there means anywhere. But the **purpose of lesson planning and teaching is not to go anywhere but somewhere**. Objectives clearly define where the learners should be by the end of the lesson.

Characteristics of good instructional objectives

If objectives are going to guide the instructional process to reach the desired end, they must have the capacity to do so. In designing good objectives, we can use the Knirk and Gustafson (1986)'s **ABCD method**.

- (i) **Audience:** That will perform the objective. Who is to be doing the learning? Objectives must specify the learners.
- (ii) **Behaviour:** What behaviours are expected of the audience?
 - The behaviours should be **observable, measurable and specific**.
- (iii) **Conditions:** Under which the audience will perform when assessed. In other words the conditions under which learning will take place or be observed.
 - What resources will be used?
 - What time limitations or resource limitations will be placed on the learners' performance when they are being evaluated to determine if they have achieved the objectives?
- (iv) **Degree** of measurement used to determine an acceptable performance standard.
 - 80% correct answers
 - List 5 out of 6 factors of...

Examples:

By the end of the lesson, pupils (of S.2B) should be able to:

- Construct at least four of six given molecules using molecular model kits. (science)
- Look at a person or object and list five or more words that describe that person or object. (English composition – creative writing).
- Describe at least four of five characteristics of insect pollinated flowers using the specimens provided by the teacher.
- Within 15 minutes draw and label from memory a map of Uganda indicating all the districts.

How many objectives should a lesson have depends on the content to be covered.

Relevant previous knowledge and experience

This is whatever experience learners have that has relevancy to the new knowledge that is to be learnt. It is not necessarily what the learners last learnt. The teacher ought to identify what this relevant previous knowledge is and then successfully build on it. Research in cognitive psychology indicates that new knowledge is **subsumed** onto pre-existing knowledge. The practice of teaching from the known to the unknown is based on this pedagogical consideration.

"If you do not know where you are, you can not know where you are going."

Yet, *"Unless you know where you are coming from you cannot know where you are."*

The teacher should therefore establish where the learners need to be before they can learn the new content he/she wants to teach. Some of these required pre-requisite experiences may need to be provided before the lesson, while others can easily be reminded or taught to the learners during the lesson. In any case, the teacher should ensure that his/her lesson planning process take into account the needed previous knowledge for learning the planned content.

Methods

Once the objectives are known, and the pre-requisite knowledge identified, then the next question is how will the learning take place? A method is a particular way of doing something. It should be noted that a good behavioral objective suggests what instructional methods to use. Take for example the following objective:

By the end of the lesson, pupils should be able to construct at least four of six given molecules using molecular model kits.

The method(s) to be used in this case should enable the learner to construct, not to define, list, classify, etc. In short, an instructional method should focus on attainment of (an) instructional objective(s). Therefore, a good lesson plan should have instructional methods harmonized with the planned instructional objectives for the lesson. **A method is included in the lesson plan for its definite relevancy and capacity to aid attainment of objectives and not to fulfill a requirement as most student teachers simply do.**

Approach, method, strategy and technique.

Many teachers use the above terminologies inter-changibly. The fact is that they mean different things and serve different instructional purposes.

Approach:	A general way of doing something. (Soccer: Team-work)
Method:	A particular or ordered way of doing something (method of play: 4:2:4 or 4:3:3)
Strategy:	A detailed plan for achieving success in situations such as war, politics, sports, or the skill of planning for such situations. (e.g. Injure the goal keeper or striker, or beat the off-side trap).
Technique:	A way of doing an activity (specific) requiring skill in the arts, science, sports. (e.g. Technique of ball control, free kicks etc.)
Example:	Task: Prepare for examinations.
Approach:	Revise
Method:	Revise with a friend
Strategy:	Revise every morning beginning with the most difficult topics.

Technique: Revise difficult topics using past paper questions

What facilities are necessary for the learning to occur?

In order for learning to occur some instructional facilities are needed. These include:

- Teaching Aids e.g. Charts, maps, flowers, chalkboards
- Apparati and chemicals
- Reference books and materials
- Environmental facilities such as classroom, furniture and electricity.

Like methods, instructional facilities depend a lot on the content and the objectives of the lesson. Using the objective that requires pupils to be able to construct at least four of six given molecules using molecular model kits, one would clearly see that **molecular model kits** would be part of the facilities needed for that lesson.

It is important to note that the mere presence or taking of instructional materials to the classroom does not in itself lead to effective learning. Instructional materials must be effectively integrated in the teaching-learning activities if they are to aid effective learning. It is therefore important for the teacher to plan in advance the strategies and techniques that will be employed to integrate the instructional materials in the lesson. The lesson plan should indicate at what stage or in what step will the instructional materials be used. It should also indicate how the materials will be used. Needless to add, both the teacher and the learners should know why.

Some instructional materials required the teacher and the learners to have special skills before they can use them. It is the teachers responsibility to identify the skills needed to use the instructional materials and help himself/herself and the learners to acquire those skills before the lesson.

Some instructional materials need facilities such as electricity, water or darkness. The lesson planning activity should identify such support facilities and indicate them on the lesson plan.

References. The references to be used should be indicated on the lesson plan. In some cases, it may be necessary to separately indicate the teacher's and pupils' references if the two are different. When writing references, the following order is recommended:- Author(s), year in brackets, Title, Edition (if any), City : Publisher. Page(s).

Example:

Farrant, J.S. (1981). Principle and Practice of Education. New edition.
London : Longman. Pg 175-185

Chalkboard Plan

The chalkboard is the most commonly available and used aid in Ugandan Secondary Schools. Good lesson planning therefore requires that its use is planned in advance. Unless the use of the chalkboard is not envisaged at all, as in the case of a field trip, it is recommended that lesson plans should include chalkboard plans in them.

Factors to consider when making a chalkboard plan include:

- (a) Date
- (b) Need to write main points on C/B.
- (c) Chalkboard illustrations e.g. ,maps, diagrams, figures, etc.
- (d) New world or concepts

- e) Space for display of maps, charts and other visual aids.
- f) Notes writing
- g) Exercises, tests, examinations
- h) Examples and calculations.

Lesson Evaluation

Each lesson plan should provide room for the teacher to make an evaluation of the lesson. The evaluation is made on the basis of the objectives of the lesson. The key question at this stage therefore is:

Have the objectives of the lesson achieved?

If the answer to that question is in the affirmative, then the teacher should try to analyse what made it possible to achieve the objectives. Was it the methods, the teaching aids, etc. or a combination of all those aspects of the lesson? What form did learner participation take and how did this contribute to the attainment of the objectives? Was success a result of the planning that was made or accidental? On the other hand, if it is noted to have been a failure, then the teacher should find out what went wrong. Was it bad methods, wrong or malfunctioning teaching aids/apparati, poor environment, interruptions or total poor planning? May be the learners lacked adequate previous knowledge and experiences. Were the objectives unrealistic or too vague to be assessed properly? Then the teacher should decide on the appropriate corrective steps to take to ensure that the learners learn the content. Re-teaching the content is usually recommended when the objectives are assessed not to have been attained.

In all cases, lesson evaluation should be an analytical postmortem of what happened (and didn't happen) during the lesson. The purpose of it is to make a decision on whether or not to proceed to the next topic/Sub-topic.

Date	Class	Subject	Time	No. of Pupils	Average Age
4/5/2001	S2B	Biology	10.00-10.45 a.m. (45 minutes)	54	15 years

TOPIC : POLLINATION

SUBTOPIC : CHARACTERISTICS OF INSECT-POLLINATED FLOWERS

SKILLS : Drawing and observation

OBJECTIVES : By the end of the lesson pupils should be able to:

- 1) Describe three of six characteristics of insect pollinated flowers using specimens provided by the teacher.
- 2) Draw and label, with the aid of a chart, a diagram of a Hibiscus flower showing all its external parts.

METHODS : Guided discovery, Talk and chalk, Group work.

TEACHING AIDS : 20 Hibiscus flowers,
20 Rose flowers of different colours
Chart showing a labelled diagram of a Hibiscus flower,
Cellotape, Razor blade, Pointer.
[Chalkboard, Duster, Chalk].

REFERENCES

- (1) Stone, R.H, and Cozens, A.B. (1996). **New Biology for Tropical Schools**. 3rd ed. Essex : Longman. Pages 98-99.

STEP	TIME	CONTENT	TEACHER'S ACTIVITY	PUPIL'S ACTIVITY
I	10.00-10.05 (5 mins)	Settling down	Allow order to prevail in class and pupils to settle down	Settle down and get ready for the lesson.
III	10:10 – 10:13 (3 mins)	D E V E L O P M E N T		
		(Group formation and distribution of Hibiscus flowers)	Ask pupils to move to their groups of threes. Distribute one Hibiscus flower to each group.	Move to their groups Received Hibiscus flowers in their groups
IV (a)	10:13 -10:18 (5 mins)	Characteristics of insect pollinated flowers 1) Brightly coloured petals - Why petals are brightly coloured	- Ask pupils to describe the colour of the petals of the Hibiscus flower. - Ask pupils why some people put on brightly coloured clothes - Ask pupils the function of brightly coloured petals on a flower - Ask pupils to describe the colour of Hibiscus flowers and their functions in their notebooks. Move round	- Describe the colour of the petals of the flower i.e. Red Answer the question: - Desired answer. They want to attract attention Answer questions: - Expected answer. To attract insects. Answer the question, in note form, in their notebooks.
(b)	10:18 -10:22 (4 mins)	2) Sticky Stigma - Facilitates pollination by holding pollen that falls on it	Ask pupils to touch the surface of the stigma and describe what they feel Ask them how the sticky stigma facilitates pollination Guide pupils to write notes	- They touch the surface of the stigma and describe what they feel – i.e. it is sticky - Explain how the sticky stigma facilitates pollination - Write notes in their notebooks

(c)	10:22-10:27 am (5 mins)	3) They are often scented - Use of scent to attract pollinating insects	Distribute a rose flower to each group. Ask pupils to get the flower close to their noses and describe what they felt. - Ask them what they feel when someone who has performed oneself passes by Ask them to suggest why insect pollinated flowers are scented. Guide them to make notes.	- Receive rose flowers in their groups. - Pupils, in turns, put flowers near their noses and describe what they feel – i.e. nice smell. - Respond by e.g. saying they smell the perfume and may turn round to see who it is. - Suggest reason – i.e. to attract insects - Write notes.
V	10:27-10:42 am (15 mins)	Drawing of a Hibiscus flower	Ask pupils to get ready to draw. -Pin up chart showing a labelled diagram of a Hibiscus flower. -Ask pupils to draw a diagram in their books -Move round to monitor pupil's work.	- Get ready to draw by getting their pencils, rubbers, etc. - Draw and label the diagram of a Hibiscus flower in their books
VI	10:42-10:45 am (3 mins)	R E C A P I T U L T I O N		
		Summary of characteristics covered i) Brightly coloured petals ii) Sticky stigma iii) Scent	Ask pupils to describe the three characteristics of insect-pollinated flowers covered in the lesson. Inform pupils that the next lesson will cover three other characteristics of insect-pollinated flowers, which they should have read about by then.	Describe the characteristics covered in the lesson. Note that they are required to read about the other three characteristics

CHALK BOARD PLAN

Main points	Chart Display	Date
-------------	---------------	------

SELF-EVALUATION

References

- Brown, J.W., Lewis, R.B., and Harclerod, F.F.C (1983). *AV Instruction: Technology, Media and Methods*. 6th Ed. McGraw-Hill Book Co; NY.
- Farrant, J.S. (1981) *Principles and Practice of Education*. Longman, UK
- Gagne, R.M. and Briggs, L.J. (1979). *Principles of Instructional Design*. 2nd Ed. Holt, Rinehart and Winston. NY
- Joyce, B. and Weil, M. (1980). *Models of Teaching*. 2nd Ed. Prentice-Hall, New Jersey.
- Knirk, F.G. and Gustafson, K.L. (1986). *Instructional Technology : A systematic Approach to Education*. Holt Rinehart and Winston New York.
- Matiru, B., Mwangi, A. and Schlette, R. (Eds). (1995). *Teach Your Best: A Handbook for University Lecturers*. DSE.
- Skinner, B.F. (1968). *The Technology of Teaching*. Appleton Century-Crofts, New York.
- Treffinger, D.J., Hohn, R.L., and Feldhusen, J.F. (1986). *Reach Each You Teach: A Handbook for Teachers*. D.O.K. Publishers, New York.