NATIONAL OPEN UNIVERSITY OF NIGERIA

SCHOOL OF SCIENCE AND TECHNOLOGY

COURSE CODE: NSS411

COURSE TITLE: EDUCATIONAL AND CURRICULUM DESIGN

GUIDE

NSS411
EDUCATIONAL AND CURRICULUM DESIGN

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Introduction

Educational progammes are set up to teach or instruct learners about knowledge, ideas, thoughts, principles and theories of old and current knowledge. Programmes are also set to advance progress of the societies.

This course deals with the theory and practice of educational and curriculum design. You would find the course useful as a professional nurse to meet the varying needs of changing society.

Curriculum involves all the experiences and knowledge (school activities) the learner has under the guidance of the school or all the courses offered within the school system inclusive of activities like drama, excursions, recreation e.t.c. which are classified as co-curricular activities. It therefore includes the totality of the knowledge and experiences got by a child in and out of the school walls.

Most teachers of health assume teaching responsibilities without having had training in teaching techniques and processes. It is usually assumed that a good health practitioner is automatically a good teacher. But this is not always true, hence the need to train nurses in teaching methods, management and sometimes research methodology.

What You will Learn in this Course

The overall aim of this course NSS411: Educational and Curriculum Design is to expose you to the basics in educational and curriculum design. Some of the topics covered include: Introduction to educational and curriculum design, Curriculum Development and design, Stages of Curriculum Development; Curriculum Designs, Methods of Teaching-Learning, Teaching and Learning Resources, Assessment of Learning and Teaching, Application of Learning and Managerial Skills.

The Aims of the Course

The aim of this course can be achieved by answering the following questions:

1. What is a curriculum?

2. Differentiate between a curriculum and a syllabus.

3. Describe curriculum theory.

4. Explain curriculum model.

5. Discuss curriculum development and design.

6. Design the stages of curriculum development.

7. Explain curriculum designs.

8. Outline teaching-learning processes.

9. Discuss various methods of teaching-learning.

10. Describe the teaching-learning aids.

11. Explain assessment of learning and teaching.

12. Discuss application of teaching and managerial skills.

Course Objectives

In order to achieve the aims of this course, there are overall objectives as well as specific objectives is contained in each of the units. You need to acquaint yourself with these objectives as you can always refer to these in the course of your studying the units. Find below the overall objectives of this course.

On successful completion of this course, you should be able to:

- explain the concept of curriculum
- differentiate between curriculum and syllabus
- describe curriculum theory
- explain curriculum model
- describe curriculum development and design
- discuss the stages of development and design
- explain curriculum designs
- discuss the teaching-learning processes
- discuss methods of teaching-learning
- discuss the teaching-learning aids
- describe assessment of learning and teaching
- explain application of teaching and managerial skills.

Working through this Course

To successfully comp lete this course NSS 411: Educational and Curriculum Design, you are requested to read the study units carefully, read the references/further reading books and any other materials provided for you by the National Open University of Nigeria (NOUN).

Each unit also contains Tutor-marked assignment that will assist you greatly in your knowledge acquisition.

Course Materials

The major components of the course are:

- Course Guide.
- Study Units.
- References/Further readings.

Study Units

The Study Units in this course are as follows:

Module 1

Unit 1 Introduction to Educational Curriculum Designs
Unit 2 Curriculum Theory and Model
Unit 3 Curriculum Development and Design
Unit 4 Stages of Curriculum Development
Unit 5 Curriculum Designs

Module 2

Unit 1 Teaching-Learning Processes I
Unit 2 Teaching-Learning Processes II
Unit 3 Methods of Teaching-Learning I
Unit 4 Methods of Teaching-Learning II
Unit 5 Teaching and Instructional Resources

Module 3

Unit 1 Assessment of Learning and Teaching
Unit 2 Application of Teaching and Managerial Skills

Textbooks and References

Abbatt, F. and McMalwn, R. (1993). *Teaching Health-Care Workers.* Ibadan: Macmillan.

Amri, M., Ngatia, P. and Mwakilasa, A. O. (2005). *A Guide for Training Teachers of Health Workers.* Nairobi: The African Medical and Research Foundation.

Cox, K. R. and Evvan, C. E. (1988). *The Medical Teacher*. London: Churchill Livingstone.

Esu, A. E. O. (1987). Educational Objectives and the School Curriculum: An Analytical Approach, *Nigerian Journal of Curriculum Studies 5(2)* 48-58.

Gagne, R. M. (1988). *Essentials of Learning for Instruction.* Prentice Hall.

Kelly, A. V. (1982). *The Curriculum Theory and Practice.* (2nd Ed.) London: Harper & Row Publishers.

Manson, E. J. and Bramble, W. J. (1989). *Understanding and Conducting Research*. New York: McGraw Hill Book Company.

Moronkola, O. A.; Akinsola M. K. and Abe, C. V. (2000). *The Nature of Curriculum,* Ibadan: Royal People (Nigeria) Ltd.

Nicholls, A. and Nicholls, H. (1978). *Developing a Curriculum: A Practical Guide*. London: George Allen and Uwin.

Onwuka, U. (1981). *Curriculum Development for Africa*. Onitsha: Aficana Fep. Publishers.

Saylor, J. G. and Alexander, W. M. (1974). *Planning Curriculum for Schools*. New York: Holt Rinehart and Winston, Inc.

Stenhouse, L. (1975). *An Introduction to Curriculum Research and Development.* London: Heinemann.

Werner, D. and Bower, B. (1982). *Helping Health Workers Learn.* Hesperian Foundation.

WHO. (1987). Educational Handbook for Health Personnel. Geneva: WHO.

Assessment

There are two aspects to the assessment of the learners in this course NSS 411: Educational and Curriculum Designs. These are Tutor-marked assignment and a final written examination at the end of the semester to be determined by the University (NOUN). In attempting the TMAs, you are expected to apply information, knowledge and strategies you have gathered during the course of your study. The tutor-marked assignments

are expected to be submitted to your course facilitator through the study centre in accordance to the instructions given by the University and it will be of your utmost interest and benefits to follow the directives you are given.

Tutor-Marked Assignment

All the units have tutor marked assignment question at the end of the units for your benefits.

Summary

This course NSS411: Educational and Curriculum Designs, upon its completion, equips you with required knowledge of meeting the needs of your clients/patients and their families. You will be able to design and develop the curriculum for Nursing education programme having acquired the basic knowledge needed to perform the task.

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MODULE 1

UNIT 1 INTRODUCTION TO EDUCATIONAL AND CURRICULUM DESIGN

CONTENTS

1.0 INTRODUCTION

Educational programmes are set up to teach or instruct learners about knowledge, ideas, thoughts, principles and theories of old and current knowledge. Programmes are also set to advance progress of the society.

This unit will therefore look into the concept of curriculum and its related terms for better understanding.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- define the concept of curriculum
- explain some terms that are related to curriculum.

3.0 MAIN CONTENT

3.1 Defining Curriculum

By traditional interpretation, curriculum involves all the experiences and knowledge (school activities) the learner has under the guidance of the

school or all the curses offered within the school system inclusive of activities like drama, excursions, recreation etc. which are classified as extra-curricular activities. Modern interpretation sees the curriculum as all the knowledge and experiences got by a child in and out of the school walls, either on the timetable or outside it, i.e. the experiences the learner has regardless of when or how they take place (Moronkola, Akinsola & Abe, 2000) Curriculum means a written description of what happens in the course. A curriculum differs from a syllabus in that a syllabus is an outline of subjects or even topics students will cover in a course.

3.2 Related Terms in Curriculum Studies

For better understanding of the course, it is essential we also have knowledge of some associated terms like:

- **Syllabus:** It is a document containing suggestion on programmes or topics to be learnt (content) for each class, subject or course. The outline of topics must be designed in such a way that it will be suitable to the age, interest, capacity and need of each class.

- **Scheme of Work:** The breaking down or simplification of a syllabus into sub-division or units of instruction so that teachers may use weekly, monthly or termly as a guide in teaching the students.

- **Lesson/Lesson Plan/Note:** A lesson is a specific procedure of a subject or course content meant to be taught within a specified period of time usually in a school setting. An outline of what to take place during a teaching-learning process written down by a teacher before the lesson period is known as a lesson note or plan. It is like a guide for effective teaching and learning during a lesson period.

- **Continuity:** Repetition or reoccurrence of concepts, theories and principles learnt in a curriculum.

- **Sequence:** This is related to continuity but while continuity connotes repetition of concepts, sequence of theories implies degree of complexity as the learner moves up the ladder.

- **Domain:** This means learning opportunities in a large group so that educational goals for a programme may be achieved.

- **Objective in Curriculum:** This is a statement on specific overt changes expected in the behaviour of a learner usually after

undergoing a learning task or participation in a unit of learning activity.

- **Instruction:** It connotes implementation of the curriculum plan usually through the teaching-learning process.

- **Curriculum Development:** A c yclical process revealing creation of what learners need to learn through objective statements, choosing and/or providing the right methods, learning experiences, learning resources and evaluation techniques.

- **Curriculum Planning:** A description of the process of creating a curriculum that entails developing, monitoring and evaluating the total curriculum plan.

- **Curriculum Guide:** A document usually developed by state or local school agencies. The content may be recommendations for teaching a subject on content, teaching resources, learning experiences or opportunities to be provided and evaluation techniques or methods.

- **Curriculum Design:** A substantive entity of a curriculum revealing the arrangement of the components or element of the curriculum like aims, goals and objectives, subject matter or content, learning activities and evaluation.

- **Curriculum Models:** Graphic models that enable curriculum planners to visualize curriculum components, their relationships, process of development as well as implementation. They facilitate theory building through provision of clues of what to think about thereby stimulating further research and theoretical constructs.

- **Curriculum Change:** Change in the educational curriculum of a society due to new expectations from the education system of a country.

- **Curriculum Foundations:** These are areas that determine what a curriculum will look like. These are nature of knowledge, society, culture, learning theories, the individual learner.

4.0 CONCLUSION

Curriculum provides a mirror of what the goal, perhaps, of education should look like and for a better understanding of the concept

"curriculum" It is considered essential that some related terms as discussed in this unit be understood.

5.0 SUMMARY

Curriculum needs to be seen as the reconstruction of knowledge and experience, systematicall y developed with the guidance of the school or relevant agencies which will enable the learner to have better mastery of learning experiences for the learners' and the society's well-being.

6.0 TUTOR-MARKED ASSIGNMENT

1. What do you understand by "curriculum".
2. Differentiate between:

a. Scheme of Work and Objective
b. Curriculum and Syllabus
c. Curriculum Development and Curriculum Planning
d. Curriculum Guide and Curriculum Design.

7.0 REFERENCES/FURTHER READING

Amri, M.; Ngatia, P. and Mwakilasa, A. O. (2005). *A Guide for Training Teachers of Health Workers.* Nairobi: The African Medical and Research Foundation.

Moronkola, O. A.; Akinsola, M. K. and Abe, C. V. (2000). *The Nature of Curriculum.* Ibadan: Royal People (Nigeria) Ltd.

UNIT 2 CURRICULUM THEORY AND MODEL

CONTENTS

1.0 INTRODUCTION

In the previous unit, you were exposed to the basic meanings of curriculum and its related terms. An understanding of the terms lays a solid foundation for you to easily grasp further knowledge of the course. You can therefore reflect on what you consider to be the meaning of terms like: syllabus, scheme of work, etc. This unit is on curriculum theory and models. You will find it interesting as you read along.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- explain the curriculum theory
- list and discuss the models of curriculum theory.

3.0 MAIN CONTENT

3.1 Curriculum Theory

Theory connotes interpreting established knowledge that is real and factual i.e. it is practical, valuable but not speculative and not something we can refer to as common sense. A valid educational theory is one of morally acceptable assumptions about aims, correct and checkable assumptions about knowledge and verified assumptions about the effectiveness of methods. It is logically complex and multidisciplinary in character, a field in which all the main disciplines of educational study may be used to support practical recommendations and its validation will depend on work of a critical kind at various logical levels (Moore, 1978).

Two of the earliest educators and philosophers documented by Ozmon and Craver (1976) and Schofield (1982) will be considered here:

(a) Jean-Jacques Rousseau

A naturalist cum pragmatic thinker who believed among others that there should be connection between nature and experience. According to him, children should not be viewed as miniature adults but organisms going through the different stages of developmental processes. Educators should therefore, ask questions about what is natural for children and education should be guided by the child's interest and that the child has an autonomy but the child must also prepare to suffer for the natural consequences of his/her behaviour.

(b) John Dewey

He was a pragmatic thinker among others. He believed that there is n eed for genuine investigations into experience directed to real life problems. According to him, genuine thoughts start with a problematic situation. Educators must be sensitive to novelty and variations and must seek to be creative in dealing with problems. Experience cannot be separated from nature and so the child should be in the natural environment that facilitate social relationships and the educator must facilitate democrati c education, unify both the mind and the body of the learner in thinking and doing.

3.2 Curriculum Models

Models are blueprints of curriculum that are miniature samples that summarize data and methods which help the reader to have an understanding of the whole package within a short period of time. The y help in theory building in curriculum work. Depending on the nature and complexity of what they represent, models generally are used in four categories:

(a) **Physical Model:** It is known as working model. It is a three dimensional device showing how things work, as in cluster of coloured balls used in chemistry class to show the structure of molecules.

(b) **Conceptual Model:** Known as verbal model where a verbalized concept is essentially stuck to on phenomena as an aid to comprehension. It might be sociological as in systems and games metaphors or industrial/business whereby students are regarded as raw materials processed in the factory.

(c) Mathematical Model: This is the most complex and reduces phenomena to mathematical expressions as in chemical equations.

(d) Graphic Model: It is the commonest which involves drawings or diagrams which make it possible for one through visual means to describe the components of the thing being modeled and to explain the relationships among its parts.

A curriculum model should allow quick comprehension of curriculum components and must be useful in theory building through suggestion of questions that need to be asked in data and in providing clues to possible answers. It should be possible to use model as a tool for stimulating research and theoretical construct. Some models shall be considered here:

(1) MacDonald's Model

MacDonald's Model depicts curriculum as one of our interacting systems involving other systems such as teaching, learning and instruction. Teaching depicts a personality system involving a teacher performing his professional roles, learning as another personality system wherein the students perform task-related activities or behaviours which produce learning while instruction is the social system in which formal teaching and learning processes occur which involves principally, the teacher and the learner while the curriculum is regarded as the social system which culminates in a plan for instruction.

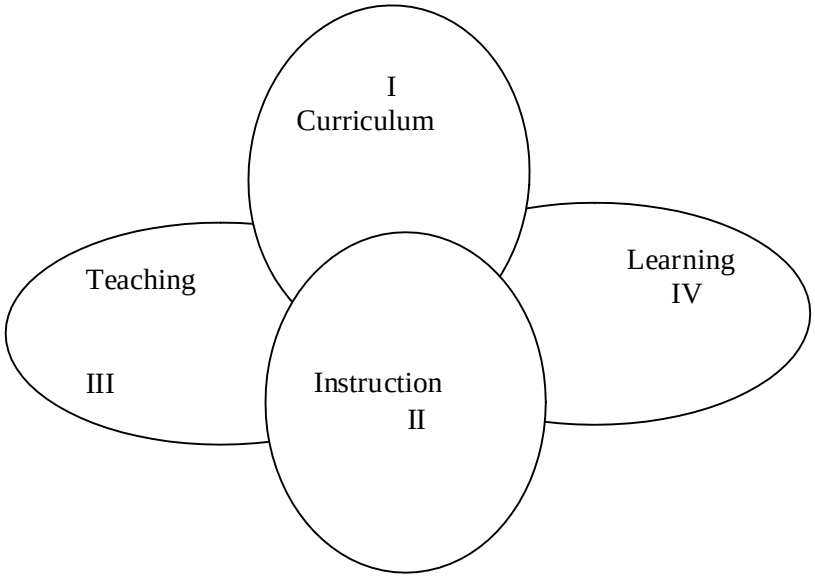

Figure 1: Showing Macdonald's Model
Adapted from Moronkola, Akinsola and Abe,(2000).

The figure indicates the point of congruence where curriculum goals are operative in the instructional setting through the agency of effective teaching activity as evidenced by the changed behaviour or learning of students. This model brings to light the relationship between teaching/learning, instruction and curriculum as an individual system.

(2) Johnson's Model of the Dynamics of Curriculum and Instruction System

Johnson's model reveals the curriculum as the output of a curriculum development process which can be visualized as the structured series of intended outcomes and later serves as an input for the instructional system. Using the curriculum as a guide, the instructional system uses instrumental content and teacher's behaviour to ensure learning outcomes. While MacDon ald also sees the role of curriculum in struction as that of guidance, it is a static representation with no visible processes built in, which is the focus of Johnson's by indicating the dynamics of the process of curriculum construction, development and implementation. However, it has the weakness of not expressing the complex relationships between teaching, learning, instruction and curriculum as MacDonald does.

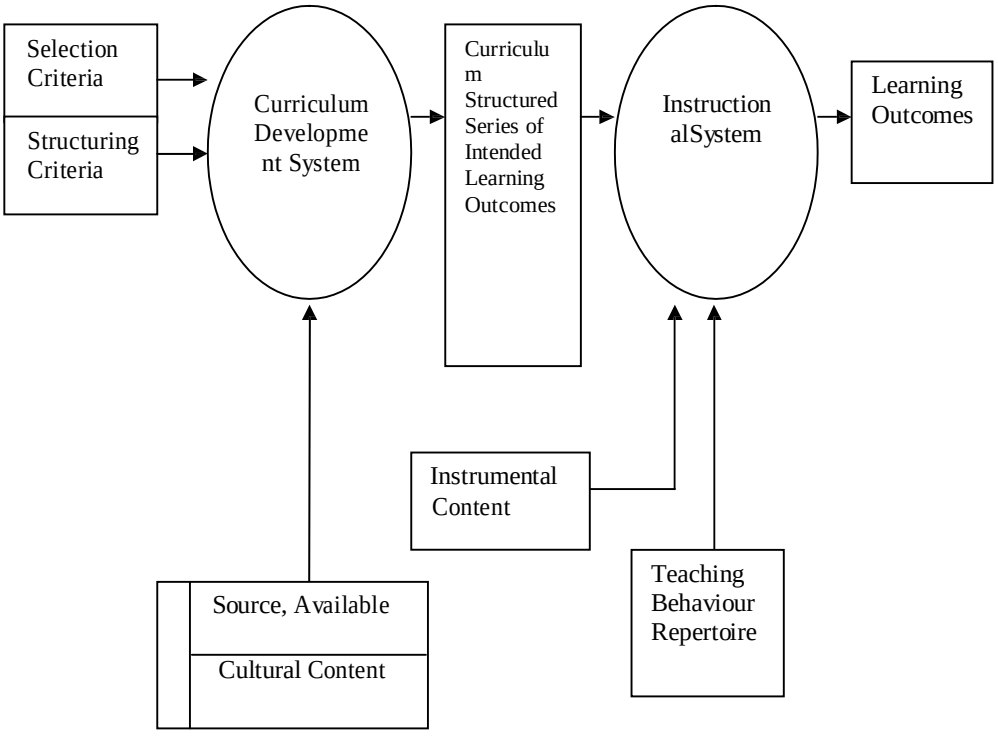

Figure 2: Johnson's Model

Adapted from Moronkola, Akinsola and Abe (2000)

(3) Zais' Eclectic Model (The Foundations and Nature of the Curriculum)

Zais' Model of curriculum d evelopment attempts to show in static terms the curriculum components and the principal forces that influence its substance and design. Its principal concern is to show graphically the principal variables and their relationships that planners need to consider in curriculum construction. As shown in the model, the curriculum boundaries are not well defined but it is an integrated unity. Within the model line, the four components making the curriculum are:

(a) aims, goals, objectives

(b) content

(c) learning activities

(d) evaluation are separated by jagged lines like a jigsaw puzzle which is meant to indicate the relatedness of each component to the rest fitting well to give a well articulated picture.

The philosophical assumption serves as the basement which influences the valu e judgments of the foundational areas which are also interrelated as the arrow shows but not a unified whole. The shaded arrow links the foundations to the components of the curriculum which shows the influence of curriculum foundations on the content and organization of curriculum components (i.e. the curriculum design).

The Curriculum

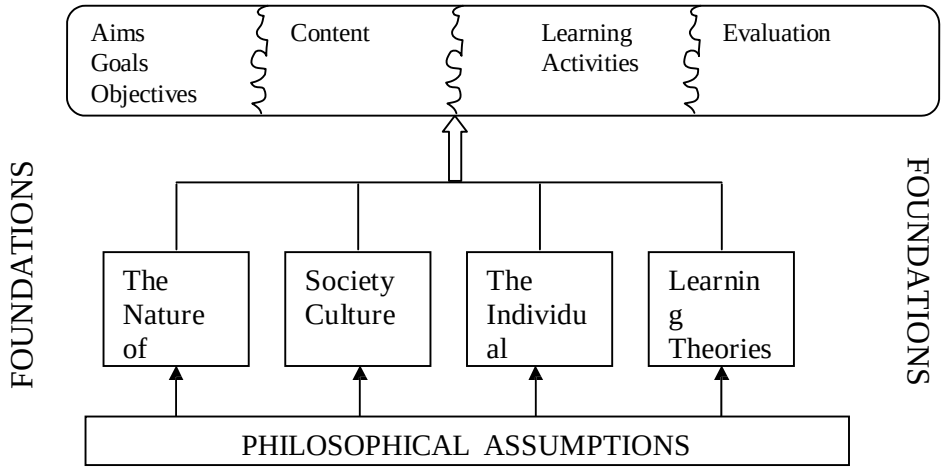

Figure 3: An eclectic Model of the Curriculum and its Foundations
Adapted from Moronkola, Akinsola and Abe (2000)

4.0 CONCLUSION

Theory connotes interpreting established knowledge that is real, factual. It is valuable but not speculative and not something we can refer to as common sense. Models should be seen as blueprints of curriculum that are abstractions of reality that summarize data and methods which help the reader to have an understanding of the whole learning tasks(curriculum development) within a short period of time.

5.0 SUMMARY

We have looked into curriculum theory and curriculum models in this unit. I do hope that the information here will make a better understanding of the subject matter.

6.0 TUTOR-MARKED ASSIGNMENT

Critique MacDonald's, Johnson's and Zais' eclectic models of curriculum development.

7.0 REFERENCES/FURTHER READING

Moronkola, O. A.; Akinsola, M. K. and Abe, C. V. (2000). *The Nature of Curriculum.* Ibadan: Royal People (Nigeria) Ltd.

Nicholls, A. and Nicholls, H. (1978). *Developing a Curriculum: A Practical Guide.* London: George Allen and Uwin.

Onwuka, U. (1981). *Curriculum Development for Africa.* Onitsha: Aficana Fep. Publishers.

UNIT 3 CURRICULUM DEVELOPMENT AND DESIGN

CONTENTS

1.0 INTRODUCTION

The primary aim of this unit is to expose learners to the development of curricula and to expose them to critically review and develop health training curricula. The unit covers the elements and factors which influence the development of curriculum.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- list and describe the process of curriculum
- develop a curriculum
- explain factors influencing curriculum development.

3.0 MAIN CONTENT

3.1 The Constituent Elements of a Curriculum

The constituent elements of a curriculum are:

1. A statement of rationale: This outlines the general philosophy of the training programme and why it is required.

2. Outline of the physical, administrative and financial requirements for such a course (resources).

3. Definition of the optimal facilities in terms of buildings, equipment and personnel.

4. A precise statement of entry requirements for students and methods of selection.

5. A statement of course goals, specific objectives and course content.

6. An outline of main learning experiences which should be arranged to meet the objectives.

7. An outline of programmes giving a logical sequence of events.

8. Specification of how long each unit or learning block should take.

9. Specification of methods of continuous evaluation, final certification, remedial activities and referral of failed candidates.

3.2 Factors Which Influence Curriculum Development

A number of factors influence the process of developing a curriculum. These include academic, social, economic and political factors.

(a) Academic factors: These factors are significant in influencing curricula. They represent the views of the teachers who teach the main subjects of a given health discipline.

(b) Social factors: The needs of the society dictate to a great extent what learners should learn. With this consideration, the curriculum is designed to reflect the social and cultural needs of the local population, thus rendering it relevant.

(c) Economic factors: Curriculum development is money consuming especially if it is to be done at the national level. The inputs of experts both at the local and foreign levels and other different groups of people and associations are to be sought for. To get the curriculum document itself tested and evaluated and to carry out some other necessary activities, will certainly require a huge expense. It should also be stressed that the kind of economic policy a country wishes to have in operation may also be a factor in influencing curriculum development.

(d) Political factors: This factor is very crucial and should not be ignored as the number and type of students to be trained is sometimes a political decision. In democracy, the manifestoes and the promises of political parties during electioneering campaigns may lead to development of curriculum.

3.3 Participants in Curriculum Development

The participants in curriculum development are those individuals or groups of individuals who exert some influence, either direct or indirect in determining the nature and activities of the curriculum. These individuals and groups can be classified into external or internal participants.

Internal Participants

The internal participants are those individuals or groups who have direct connection with the curriculum under consideration. Because of their direct influence, the internal participants exert a greater force in determining the nature of the curriculum. In developing a curriculum for health workers, six major groups of internal participants can be identified: students, teachers, administrators, boards of examiners, ministries of health and education, professional associations publishers and textbook writers.

External Participants

Many external participants in curriculum development may not exert direct influence on the process of curriculum development. But the power that these individuals or groups can exert cannot be underestimated. These are: the community, business and industry and non-governmental organizations.

3.4 Approaches to Curriculum Development

Several approaches have been used in the development of curricula but only three will be discussed here.

(a) The Subject-Centred Approach

In this approach, subject specialists define the content required for a particular level of student. In general, the content is ordered from pre-clinical subjects through to clinical subjects. The approach assumes that nursing is a series of discrete, independent disciplines, the sum of which form the required body of knowledge for a competent individual. Discussion as to how much of each subject should be included in the training programme revolves around the total time available. The decision regarding total time for the course tends to be taken by policy makers and health planners rather than learners.

Although this approach makes curriculum development an orderly process, it poses various problems. It puts the subject before the student.

The needs of the students are virtually ignored. Too much time is taken in acquiring knowledge and not enough in learning necessary skills.

(b) The Integrated Approach

This approach is still subject centered and the only variation from the straight subject-centered approach is that teaching units are fused together with larger structures or organ systems such as the Cardiovascular, Central Nervous System, GIT, Respiratory, Endocrine Systems etc. The emphasis in an integrated approach is on providing learners with less discrete chunks of information. It is hoped that the learner perceives regularities and principles in the nursing discipline and hence develops higher-order intellectual skills which are more easily transferable to the problem-solving situations which arise in their work. Such an approach can be used in conjunction with the competency-based approach.

(c) The Competency-Based or Task-Based Approach

The approach is used mainly in training. Usually, it is the best approach in training of health workers. Some typical features are:

1. The curriculum is organized around the functions of a health worker in a specified setting.

2. The output of training is a health worker who can practice at a defined level of proficiency in accordance with local conditions.

3. It is assumed that the majority of individuals can master the required level of proficiency, given appropriate instruction and sufficient time.

The approach emphasizes that the setting within which the health workers will be expected to operate is an extremely important determinant of the required level and type of competence.

4.0 CONCLUSION

In developing a curriculum that will meet the demands of the society, factors that influence curriculum development and the participants must be properly considered as these variables determines to a great extent the relevance and usefulness of the curriculum.

5.0 SUMMARY

In this unit, the constituent elements of a curriculum, factors which influence curriculum development, participants in curriculum development and various approaches to curriculum development were explored and in the subsequent units, they will be further expanded for the learners.

6.0 TUTOR-MARKED ASSIGNMENT

1. Explain the factors which influence Curriculum Development
2. What is the relevance of the participants in the Curriculum Development?

7.0 REFERENCES/FURTHER READING

Abbatt, F. and McMalwn, R. (1993). *Teaching Health-Care Workers.* Ibadan: Macmillan.

Werner, D. and Bower, B. (1982). *Helping Health Workers Learn.* Hesperian Foundation.

WHO. (1987). *Educational Handbook for Health Personnel.* Geneva: WHO.

UNIT 4 STAGES OF CURRICULUM DEVELOPMENT

CONTENTS

1.0 INTRODUCTION

In the last unit, we have looked into the various approaches in the curriculum development, this unit will critically look into the stages of curriculum development process. Most experts believe that there are four major stages in curriculum development process namely: selection of objectives, organization of contents, organization of learning experiences or methods and evaluation of the curriculum.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- identify the major stages in the process of curriculum development
- construct a goal objective in curriculum development.

3.0 MAIN CONTENT

3.1 Stages of Curriculum Development

Onyiuke (1981) identified the following major stages in the process of curriculum development:

(a) Situational Analysis

(b) The Selection of aims, goals and objectives

(c) The Selection of appropriate learning experiences and content for the achievement of the aims, goals and objectives.

(d) Organization of learning experiences and

(e) Evaluation of the extent to which the objectives identified in Step (b) have been achieved.

The need for curriculum development for any course, subject or level of education is based on the principle that there is a need in the society to which the educational system must respond. This means the products of such courses must have achieved certain measure of competency to meet those societal needs. Therefore, the objectives of the curriculum development are strongly based on prevailing situation (needs) which our curriculum effort must find solutions to.

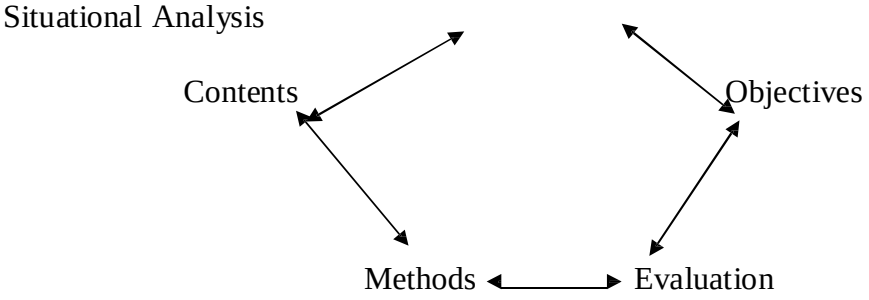

Fig 1: Stages in the process of Curriculum Development

3.1.1 Situational Analysis

Taking time to analyse current happenings in the society and the school is so crucial since it is the start of the curriculum development and if we accept the fact that the curriculum is a dynamic process, then we must be interested in what the educational institutions should do for the society. Also we must be able to analyse the quality and quantity of staff available as well as facilities, teaching methods, textbooks, evaluation techniques. The question of funding must also be addressed.

3.1.2 Selection of Objectives

A teacher has certain goals or objectives in mind when planning a course. He/she wants students to learn certain things and decide what activities will achieve these objectives. Due to the need for accountability in education, curriculum and lesson planning are usually done in a more relevant approach through the use of behavioural

objectives. Behavioural objectives spell out specifically what students would have accomplished after implementing a teaching unit or programme. Thus, there are ways or methods of measuring observable behaviour by writing objectives in the following three domains:

(i) Cognitive (knowledge)

(ii) Affective (feelings)

(iii) Psychomotor (action)

Stenhouse (1975) wrote that the school is a purposeful institution, and the objectives of education must be formulated to reflect learners uniqueness, contemporary life, the nature of the subjects, the psychology of learning and a philosophy or a set of values.

Aims are general expectations while objectives are more directional, specific in terms of curriculum study.

Too often, educational objectives are stated so that only the coverage of the content is explicit without specifying what learners should do, or use the content for, to show that learning has taken place. Expected behaviour should be specified so that we can know whether learning has taken place or not. Also specifying behaviour generally like, to think logically or to express oneself clearly is not adequate unless there is an indication of the kind of content in which the behaviour is to apply.

Esu (1987) said that Taba, 1962 believed that educational objectives provide an orientation to the main emphasis in educational programmes and they help to translate the needs and values of a society into an educational programme. They serve as a means for attaining goals of self realization at school and in later life and as a guide for assessing goals and achievement.

In the light of the aforementioned, we should have a fairly wide range of objectives clearly and precisely stated which can be used to plan the learning opportunities of the pupils as well as devise means of assessing the extent to which the pupils have achieved the pre-stated objectives. The most useful and clearest statements of objectives are those which specify both the kind of behaviour, reaction that is expected and the content to which it applies such as the ability to interpret accurately data, on causes of anaemia, or the ability to differentiate between facts and opinions. If the behaviour denotes knowing and remembering, the statement of objectives should also indicate what is to be known or remembered. If the statement specifies attitude, then it should also state what the attitude is about.

Orlosky and Smith (1978) recorded that Ojemann, 1968 asserted that objectives need to be stated in behavioural terms because the general purpose of all education is to change behaviour, therefore, course objectives must be stated in behavioural terms. Moreso, behavioural objectives are more meaningful.

A look at the situational analysis reveals what type of objectives need to be stated, which curriculum development or the teacher behaviours will benefit the learners and the society at large. In describing both the kind of behaviour expected and the content and context to which the behaviour applies, objectives must be the major determinant of the content of a course or subject of study.

Objectives must be simple, realistic and specific enough so that there is no doubt as to the kind of behaviour expected or what the behaviour applies to but must be broad enough to accommodate all types of outcomes for which the school is responsible.

Major Characteristics of Behavioural Objectives

Behavioural objectives indicate the intended behaviour of the learner as a result of his interaction with a particular curriculum. If for example a student is to name ten communicable diseases within a minute after instruction in a health education class, the behavioural objective may be stated in such a way that the learner will be able to name at this rate as a result of his/her exposure to a curriculum which emphasizes recollection of names and facts.

In formulating behavioural objectives for a curriculum, care should be taken to:

(i) Specify some form of performance (e.g. trace the mode of transmission of yellow fever).

(ii) Set appropriate conditions of performances (e.g. pupils to draw the course of schistosomiasis infection on a cardboard within ten minutes)

(iii) Indicate what should serve as evidence of satisfactory performance (e.g. drawing).

(iv) Use action verbs – name, draw, sketch, list, describe, suggest, specify etc. (WCOTP, 1987).

The real goals and long term objectives of a curriculum are the real starting points for formulating objectives at a more specific level.

Behavioural objectives specify what is expected to be performed, so that they are often called performance objectives. Since the performance has to be observable, verbs like *to understand, to know, to love, to appreciate* are not normally used, they are not action verbs. The need for treating objective as an important concept in curriculum planning and development led Tyler, (1949), Mager (1962), and Popham (1969) to affirm that the most useful form for stating objectives is to express them in terms which identify both the kind of behaviour to be developed in the students and the context or area of life in which this behaviour is to operate. A statement of an objective is useful to such extent that it specifies what the learner must be able to do or perform when he/she is demonstrating his/her mastery of the objective. Instructional objective must therefore describe an observable behaviour of the learner or a product which is a consequence of learner behaviour (Kelly, 1982).

Below are the behavioural objectives stated on pages 59-60 of National Curriculum for Senior Secondary Schools Vol. 10 Health Education.

Unit 1 - Growth and Development

Year - 4

Topic - Growth and Development

Behavioural Objectives:- At the end of the lesson, the students should be able to:

(i) explain the meaning of growth and development

(ii) distinguish between the terms growth and development

(iii) explain the different types of cell division

(iv) distinguish between mitosis and meiosis

(v) state the stages of cell division

(vi) draw the stages of cell division

(vii) draw and label correctly different types of specialized cells.

There are three main domains of stating behavioural objectives:

1. Cognitive Objectives (Knowledge and Information)

It sets to see ability of students in recalling facts and ideas during instructional programme which is one of the major objectives of education. Knowledge of facts must also include understanding of principles, concepts, trends and generalizations which will serve as basis for doing well in affective and psychomotor domains.

Onwuka (1981) recorded that behavioural objectives of knowing, emphasise what is to be remembered or rather the reproduction of something learnt which means it involves some intellectual tasks which therefore implies that the learner determines the essential problems and reorders or combines materials, ideas, methods or procedures available so as to tackle the problems. Akinboye (1987) also noted that the cognitive domain describes the information processing attributes of an individual when such issues like achievements, aptitude, the intellectual (the broadest) ability are considered. The information domain (cognitive is usually arranged into six major classes which move from simple to complex, from concrete to abstract hierarchies.

(i) Knowledge (information)

(ii) Comprehension

(iii) Application

(iv) Analysis

(v) Synthesis

(vi) Evaluation

Kinds of learning becomes difficult as one moves down.

2. Affective Objectives (Attitudes and Appreciation)

The affective objectives emphasise feelings and attitudes, so that they are usually difficult to define and even more difficult to measure or evaluate e.g. when and how does a student prove that he "appreciates" a desirable health "attitude".

What the teacher/curriculum developer or the student does and what instructional resources and procedures are using in arranging suitable learning activities will be integrally involved in achieving these outcomes. It is also in a form of hierarchies i.e. from simple to complex:

(i) Receiving

(ii) Responding

(iii) Valuing

(iv) Organising

(v) Characterisation of a value or value complex.

Quoting Krathwohl et al (1964), Mason and Bramble (1989) stated that objectives in the effective domain are arranged from receiving (attending) at the lowest level of characterization by a value or value concept at the highest level as follows:

(i) Receiving (Attentive)

Awareness of, or sensitivity to, stimuli, or characteristics of the environment and willingness to be attentive to them:

- Awareness
- Willingness to serve
- Controlled or Selected Attention

(ii) Responding

Contains an element of motivation so that the learner responds by listening more actively. This is the beginning of interest:

- Acquiescence in Responding
- Willingness to Respond
- Satisfaction in Response

(iii) Valuing

A sense of worth or value is attached to an object, idea, phenomenon or behaviour as a function of the person's own internalized experiences and assessments and society's values:

- Acceptance of a value
- Preference for a value
- Commitment

(iv) Organising

Values are organized or structured so that they can be called upon as appropriate in different situations. This involves two things:

- Conceptualization of value
- Organization of a value system

(v) Characterisation by a Value or Value Complex

A consistent and dependable value structure which characterizes an individual and aids in developing a philosophy of life:

- Generalized set
- Characterization

3. Psychomotor Objectives (Skills and Performance)

Psychomotor objectives are interested in a learner being able to coordinate his/her brain and physical powers (e.g. skills in studying, using the library, handling data, manipulate things, playing soccer etc). Onwuka (1981) believes that psychomotor domain, according to Gronlund, (1970), is mainly concerned with motor skills so that in instructional objectives, performance skills are prominent. Onwuka however stressed that most psychomotor tasks reside in the human organism that develop naturally. Nevertheless, for effective performance of a wide variety of life tasks, it is necessary for educators to assist learners develop various skills of a more complex nature in addition to the inherent ones. The six categories of psychomotor domain from ascending order are:

(i) reflex movements

(ii) basic fundamental movements

(iii) perceptual abilities

(iv) physical abilities

(v) skilled movements and

(vi) non-discursive communication.

Generally, objectives are necessary as they are guides to:

(a) specific content to be studied by the learner in a specific learning programme

(b) specific changes in behaviour that are sought in the learner with respect to content as in (a) above

(c) selection of learning opportunities that best enable the learner to achieve and or promote the desired behavioural outcomes

(d) what to evaluate in terms of the content studied and the behaviours sought in the learner

(e) the evaluation of teacher's effectiveness

Saylor and Alexander (1974) noted that the arguments for explicit behavioural objectives and the goal should be stated in behavioural outcomes as postulated by experts and which can be summarized as:

(i) Since the purpose of instruction is to change behaviour in one way or another, the objectives of instructions should state specifically and overtly the pattern of behaviour (performance) we want the learner to be able to demonstrate.

(ii) Communication among all of those involved in the schooling process is greatly enhanced by the use of behavioural objectives.

(iii) Behavioural objectives indicate clearly what the teacher should do in providing classroom experiences to enable students to achieve a goal. They provide direct, useful guidance to the curriculum planner and the teacher in selecting content, choosing instructional materials and methods and directing classroom activities. This is the only efficient method of educating young people.

(iv) The school becomes a much efficient institution. Instruction is promoted to clearly defined aims so that all learning experiences may be selected and developed to achieve specified objectives. The student knows from the outset what he/she is expected to accomplish. The aimless, confused behaviour often noticeable in the classroom is eliminated; everything proceeds with a specific purpose. A student can readily note progress in goal attainment; thus directed, purposeful behaviour is reinforced. Appropriate practice activities are easily selected, hence there is no wasted

effort. It assists students to readily establish their level of entry behaviour and proceed from that level of accomplishment.

(v) Behavioural objectives may be differentiated more readily for each student and may be stated for an individual student or for small groups of students at comparable levels of development. This procedure is particularly used in computer assisted instruction or in individually prescribed learning activities.

(vi) Behaviourally stated objectives provide the only meaningful basis for evaluating the outcome of instruction learning which can be overtly demonstrated in behaviour, otherwise it is very likely that it does not exist. Evaluation is readily made, for the objective itself defines what kind of behaviour is demonstrated.

In conclusion, the three characteristics of objectives are performance, condition and criterion, though it is necessary always to include the second but not always necessary to include the third characteristic. The more we talk about them, the better our objectives will communicate and this is what education should do.

3.1.3 Selection and Organization of Content

What goes into the curriculum in terms of content needs to be well built in especially in this time of knowledge explosion. Content areas that are relevant to the socio-economic and cultural needs of the society need to be given a pride of place in the curriculum.

The specified or stated objectives are always the determinant of what should be presented to the learner to learn as well as the psychological makeup of the learner, the nature of the society, the necessary teaching materials and so on.

Orlosky and Smith (1978) believed that it is the defining of objectives that makes clearer the area of curriculum design which enables both educational planners and researcher to bring their practical knowledge to bear on the matter. It is therefore necessary to look at the curriculum as a sequence of content units that may be accomplished as a single act provided the capabilities described by specified prior units (in the sequence) have already been mastered by the learner. Therefore we say that a curriculum may be of any length, that it may contain any number of units. A curriculum is specified when:

(1) the terminal objectives are stated

(2) the sequence of prerequisite capabilities is described and

(3) the initial capabilities assumed to be processed by the student are identified.

The World Confederation of Organization of the Teaching Profession (1987) wrote that:

The content element in a curriculum refers to that aspect of the package which deals with the body of knowledge which is to be absorbed by the learner. Curriculum content can be seen in different forms:

- a concept: a particular principle to be learnt e.g. the concept of heat, wind direction number, etc.
- a topic: a body of knowledge made up of a body of related concepts, and the links between them, e.g. how rains are formed, how an internal combustion engine works.
- a discipline: a traditional distinct area of scientific inquiry, e.g. history, geography, mathematics, science.
- survival Kits: a body of knowledge drawing on the orthodox disciplines but designed to tackle specific life problems, e.g. family life education, population education, drug education, road traffic education.
- a set of skills: activities to be carried out, using a set of scientific principles, e.g. swimming, typewriting, cookery.

The curriculum content should represent an appropriate balance and depth (sequence) and should provide for a wide range of objectives which leads to scope. Scope delimits the content to be taught and also involves the depth and breadth of the subject matter to be taught at a given class. Level/Maturity level is important. Also important are needs, interests and concerns of the students.

Continuity

Continuity according to Fodor and Dallis (1974) refers to the repetition of concepts and generalizations of principles as they are continuous ly revisited throughout the curriculum. This simply means that a given concept permeates the learning of students as they move to higher classes, but what is also important is that each higher level must have something new to be learnt. In other words, the composition of a specific lesson/curriculum must have order as well as progress. With increasing complexity or depth, this plan makes provision for vertical organizations.

Sequence

Sequence is more than the ordering of the subject matter to be taught and also beyond continuit y to which it is very closely related. The latter centres on repetitions of concepts, but the former emphasizes succeedingly higher levels or complexity. That is, at each class level, concepts and behaviours sought are considered in greater depth and breadth. The application o f this criterion of sequence is the planning, for example, health instruction allows for vertical organization.

Integration

Integration is the relationship which subject matter or concept has with another. The implementation of this criterion of integration provides for *horizontal organization* of the curriculum. This also presents a subject in a unified view as against segmented one e.g. it relates learning in nutrition to learning in disease prevention and learning in health education to learning in related subject fields such as science, physical education, social studies, home economics and even mathematics.

P.E	H.E	Science

Nutrition	Growth and Development	Disease Prevention

Figure showing integration of subjects (a) and topics (b)

Lassa (1984) said that Evans (1968) advised that selection of content must only be limited by an essential criterion – "utility" which means the content selected must be useful to students both in and out of the subject matter area. Utility has generally been viewed as the usefulness of concepts and skills in solving "real world" problems (called transfer of training)" by psychologists. Nevertheless, we must ensure that contents are organized and sequenced behavioural outcomes specified for each element of content. Translation of content into behavioural objectives is very essential as it gives direction to the development of measuring instruments that are needed to evaluate students' progress.
Therefore content must be related to prestated objectives of the curriculum, reflect on the knowledge of the past, deal essentially with the current knowledge in a discipline and also stimulate thinking in teachable form for utilization and advancement of the learner and his/her society.

3.1.4 Selection and Organization of Methods

The method by which the teacher presents his/her material to learners may promote or hinder learning. It may also sharpen mental activities which are the basis of social power or else it may hinder initiative and curiosity thereby making self reliance and survival difficult (Onwuka, 1981).

The importance of using appropriate teaching methods is so important that Okorie (1979) wrote that;

> For effective teaching to take place the skillful teacher needs to use the many different methods and techniques at his/her command. Even though there is a great diversity in teaching methods and techniques, there is no one of them that can be regarded as the best for every teaching situation. A carefully planned teaching method can work wonders in making learning effective. The success in the use of the methods depends on an intelligent analysis of the educational purpose, the pupils in the class, and the curriculum content of the moment or the type of subject matter being taught.

Since we want to facilitate learning and see that learners gained knowledge, attitude, practices are better than when learning was initiated, appropriate methods need to be specified for each subject teacher to choose from (but it is not mandatory for the teacher that he/she must use any of them) to facilitate learning.

Methods to be chosen by teachers must take the age, interest, cultural background, experience, extent of content areas to be learnt, pre-stated objectives, evaluation techniques to be used, into consideration. This implies that the methods must blend well with other tasks the teacher needs to perform in the course of teaching-learning process.

In addition, methods to be used need not be teacher domineering but making the learners to be active through talking, demonstrating, explaining and not passive or aggressive. It should also enable the learners to pay attention, listen and think in problem solving or learning situations.

World Confederation of Organization of the Teaching Profession (1987), Table on Major Types of Methods

Approach to Teaching	Major Characteristics	Advantages	Disadvantages
(a) The Lecture	(a) Communication from teacher to student (b) Run-on talk	(a) Speed (b) Suited to large class	(a) One way communication (b) Unsuitable for slow learner
(b) Discussion	(a) Exchange of ideas among teacher and learners	(a) Involves thinking (b) Promotes interaction	(a) Could lead to noise (b) Needs a highly competent teacher.
(c) Demonstration	Learner taken on a "tour" of a process (e.g. how a motorcar works)	(a) Involves a learner knowing-why not simply knowing-that	(a) Could lead to monologues+passivity on the learner, if not well managed
(d) Practical Activities	(a) Emphasis on the learner actually doing something	(a) Very suitable for practical subjects. (b) Learning becomes more permanent	(a) Needs competent teacher to organize meaningfully
(e) Confrontation	(a) Seeing, feeling, sensing events, objects, phenomena in direct contact	(a) Makes learning meaningful	(a) Requires an imaginative teacher.

One thing we must know is that no method is either absolutely right or wrong and the best is to combine some or all, depending on the learners and teachers' competencies.

3.1.5 Evaluation

Evaluation can be regarded as a series of processes which entails a systematic processing of looking analytically into educational problems through the asking of appropriate questions, examining the answers correctly and using them as a basis for further decision-making. It is in-

built into every process of systematic curriculum development. Since curriculum work involves conceptualizations, planning, development of materials and monitoring, at each stage, necessary questions need to be asked and critically examined so as to know what step to take next.

The success or failure of any programme, in education or any other sphere of human endeavour, to achieve a particular set of objectives may be judged in many ways. These include; the amount of activity expended towards the accomplishment of the objectives and the magnitude of the outcome or the effect produced by the programme activity. Since evaluation is a process of determining programme performance for the purpose of improving service delivery, the process should be a continuous one (Adeyanju, 1987).

The evaluation process must enable us to see whether our objectives are being met, help us to diagnose and give guidance at every stage of curriculum development, see the need for curriculum reform or change as well as promote further curriculum research.

World Confederation of Organisation of the Teaching Profession (1987), Table of Curriculum Evaluation Framework

Phase of Project	**Major Questions**	**Types and Sources of Data**	**Instruments for Data Collection**
(i) Conceptualization	(a) What exactly? (b) How can it be introduced? (c) Why it is needed? (d) Who could be involved?	(a) Opinions (b) Research reports (c)Specialized literature (d)All sorts of persons and all sorts of written sources	(a) Questionnaires (b) Interviews (c) Library search (d)Analysis of documents
(ii) Planning	(a) To what extent is the rationale for the project clearly stated? (b) To what extent do the objectives make sense?	(a)Opinions of specialists in the subject in question, teachers, other possible specialists and pupils	(a) Questionnaire (b)Achievement tests (c) Rating scales (d) Observation of classes (e) Interviews (f) Discussions

	(c) To what extent are the contents and methods appropriate ?		
(iii) Material Development Try-out and Revision	(a) To what extent are teachers able to interpret the new curriculum	(a) Teachers (b) Attitude and achievement measures (c) School inspectors	(a) Questionnaire (b) Interviews (c) Classroom observations schedules (d)Achievement tests
(iv) Centralization	(b) What specifies outcomes have resulted from the new curriculum?	(d) Learners (e) Parents	(e) Informal reports e.g. newspaper comments (f) Results of formal examination

The following questions should be asked according to Saylor and Alexander (1974) when evaluation is determining the value of the curriculum itself: Is the curriculum fulfilling the purposes for which it was designed? Are the purposes themselves valid? Is the curriculum appropriate for the particular group of students with whom it is being used? Are the instructional modes selected, the best choices in the light of the goals sought? Is the content the best that may be selected? Are the materials recommended for instructional purposes appropriate and the best available for the purposes envisioned?

In any prevailing situation, we must have a situational analysis in the curriculum development effort and see the curriculum as a cyclical process as indicated below:

4.0 CONCLUSION

Curriculum development is a serious academic business involving consideration of analysis of societal needs, formulation of specific objectives, societal needs, formulation of specific objectives, selection and integration of content, identification and selection of appropriate instructional methods, materials and provision of appropriate evaluation strategies.

5.0 SUMMARY

In this unit, attempts have been made to discuss another major aspect of curriculum development. We have examined various stages in curriculum development with specific discussion of situational analysis, selection of aims, goals and objectives, selection of learning experiences and contents, organization of learning experiences and evaluation as the main stages involved in curriculum development.

6.0 TUTOR-MARKED ASSIGNMENT

1. Why is appropriate objective a determining factor to a sound curriculum development?
2. Critically examine the various stages of curriculum development.

7.0 REFERENCES/FURTHER READING

Saylor, J. G. and Alexander, W. M. (1974). *Planning Curriculum for Schools.* New York: Holt, Rinehart and Winston, Inc.

Onwuka, U. (1981). *Curriculum Development for Africa*, Onitsha: Aficana Fep. Publishers.

Manson, E. J. and Bramble, W. J. (1989). *Understanding and Conducting Research*. New York: McGraw Hill Book Company.

Stenhouse, L. (1975). *An Introduction to Curriculum Research and Development.* London: Heinemann.

Esu, A. E. O. (1987). Educational Objectives and the School Curriculum: An Analytical Approach, *Nigerian Journal of Curriculum Studies* 5(2) 48-58.

World Conference of Organisations of the Teaching Professions (1987). A Curriculum Development Manual.

Kelly, A. V. (1982). *The Curriculum Theory and Practice* (2nd ed). London: Harper & Row Publishers.

UNIT 5 CURRICULUM DESIGNS

CONTENTS

1.0 INTRODUCTION

This unit is about the systematic organization and planning of curriculum. It is a work plan through which the curriculum content is implemented in order to achieve the curriculum goals and objectives which may be done either in a short-term or long-term basis. The key to good course design is forming educationally sound and logical links between objectives, teaching and learning methods and the assessment of learning. It is also important to remember that course design or planning involves thorough consultation among staff in order to avoid planning errors.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- design, plan a curriculum in health education and health education related subjects
- prepare lesson plans for use in teaching health education
- outline factors to be considered when planning a curriculum in health education.

3.0 MAIN CONTENT

3.1 Introduction

Curriculum design is the arrangement of the components or elements of a curriculum which may also be referred to as curriculum organization

i.e. it is the nature of elements present in a curriculum and the patterns or organization in which they are brought together. According to Saylor and Alexander (1974) design is the element that makes a difference between one curriculum from another. This is because it is a particular shape, framework or pattern of learning opportunities; thus for any particular population, the scope and type of learning opportunities identify a curriculum design. Since the opportunities are difficult to provide at once and since they lack the permanent structure of a building or the texture and the colour of a dress the design is not usually visualized rapidly. The key features of curriculum designs are:

(a) their pattern of content organization

(b) activities organization

(c) areas of living organization

However, the most prominent feature of curriculum is its pattern of content organization. This is because we cannot deny that content or subject matter is an important element in the curriculum design. However, all the activities and experiences that go along with them must be purposeful.

Curriculum designers must have the following at the back of their minds: scope, sequence, continuity and integration to have a good design at the end of the day. Curriculum design may be considered along (1) subject centred design (2) learner-centred design and (3) problem-centred design (Udoh, 1992).

3.2 Subject-Centred Designs

(a) The Subject-Design

It is traditional since most schools organize their curriculum along this design. Majority of teachers passed through this in their schools especially at primary and post primary levels and they find it difficult to change.

Nicholls and Nicholls (1978) wrote that in vast majority of schools, the curriculum is organized on a subject basis, but teachers may hold different views about the value of subject-matter. In this design, the curriculum is organized into a variable number of subjects each of which represents a unique and homogeneous body of content. Since there is knowledge explosion, men have sought to classify knowledge in order to facilitate study and research, but they seldom do so with the thought of teaching others. Attempts to deal with the quantitative aspects of the

environment, for example, led to he discovery of many facts as well as principles which we regard as mathematics and when it grew out of practical need of man for number, knowledge relationship and a way to describe them, we label it subject, while classics was described for culture. Other names for this design is, the separate-subject curriculum, subject matter curriculum and the scientific subjects curriculum. This design is common in primary and secondary schools.

Here, students are made to study bits of each subject in each school da y and little regard is paid to the interrelationship of the school subjects. For example, teaching health education/science is taught without reference to family living, Physical Education, Home Economics and Agricultural Science i.e. Health Science is taught as a separate subject by itself.

Assumptions

(i) The acceptance of the Brunerian contention that a child's cognitive functioning is essentially the same as the adult scholar, it differs in matter of degree.

(ii) The belief that the major role of the school is to transmit the cultural heritage from generation to generation and that most significant parts of the heritage can be grouped into parts , or "subjects".

(iii) The belief or notion that each subject has an internal order which can be presented from simple to complex.

(iv) The assumption that this organization is such that will enable the students to develop the capacity to deal with the culture as he/she meets it.

(v) That an authoritarian presentation is superior to a democratic approach.

(vi) The belief that this pattern has stood the test of time and hence has merit. It provides security for the teacher, the learner and the parents because of its time-honoured status.

Characteristics

(i) Learning a subject is based upon language activities – talking, listening, writing, reading. Hence, it is expository in nature.

(ii) Adults select and organize the content before it is presented to the learners.

(iii) The content is universally true and hence is not affected by the local situation.

(iv) Each subject is in its own "a compartment" with little genuine concern for things outside its walls.

(v) Emphasis is on the processes of absorption and memorization. Methodology will include considerable drill to establish the content in the learners mind.

Advantages

(i) Since it is systematically arranged, it is an effective organization for bequeathing the important societal cultural heritage on the learners i.e. youths.

(ii) As stated before, most teachers passed through this type of design, as a result it will make their jobs easier.

(iii) It is acceptable by parents since they also passed through it.

(iv) Its organization from simple to complex makes it easy to administer.

Disadvantages

(i) Due to knowledge explosion, there is an increase in fragmentation of knowledge and adding of more subjects to the school offerings. This makes the teachers to be less confident in their ability to handle the subject. To give attention to different subjects, it means the school's day time will be broken down the more.

(ii) There is little or no regard for individual differences among learners and it seems it is detached from happenings in the real world.

(iii) The misconception about the subject-centred approach is that learning the information presented will eventually transfer to life situations which some psychologists have about, serious doubt as the likelihood of transfer of learning when knowledge is broken down into discrete parts.

(iv) In most cases, the interest of the learner is not taken into consideration which is against the psychological stand that learners' interest affects learning.

(v) Rote memorization is encouraged rather than the process of thinking and as a result it is not an efficient arrangement of the curriculum for learning and use.

(vi) It encourages passive learning and structured knowledge.

3.3 The Discipline Design

This is the arrangement of organized knowledge for instruction by men of knowledge who command respect among academic colleagues and possess authority in their fields of endeavour. It is considered to be one of the traditional academic area of inquiry and commonly used in higher or tertiary institutions like Colleges of Education, Polytechnics and Universities. Hence we have disciplines like Physical Education, Health Education, Mathematics, Economics, Chemistry, Geography, Philosophy, Psychology, Agriculture etc.

Advantages

(i) It is more systematic and effectively organized than the subject designer in the transmission of societal cultural heritage.

(ii) It gives room for rational thinking on the part of the learner.

Disadvantages

(i) There is still problem of non integration of knowledge since the learners are presented with "bit by bit" curriculum.

(ii) Interest and experiences of learners are inadequately taken care of.

(iii) It is more academic and intellectual in nature and as such not an efficient way for learning and use.

Generally, on knowledge and disciplines Lawton (1975) wrote that to answer "Why disciplines, or why different forms of knowledge?" four answers may be examined:

(a) Disciplines justified in terms of the nature of reality, to him, a naïve realist point of view is that world exists 'out there', with certain fixed characteristics, and man's search for knowledge is a

simple cumulative process of gradually uncovering more and more of "Nature's Secrets". This might be described as the man-in-the street or common sense of view of reality. Many scientists are of the opinion that knowledge is a comp lex process of puzzle-solving within theoretical framework and many social scientists see human contributions by way of theories and ideologies, there is even greater difficulties in accepting the above picture.

Authentic disciplines can then be equated to the dishing out orders of reality and making known of the paths by which learners may come to realize truth in their own being and b y this, the disciplines are viewed as the sole proper source of the curriculum.

(b) Different disciplines ask different questions and make different kinds of statement e.g. the 'size'/shape will be seen by a geolo gist who might be interested in the rock formations, a historian analysis is important in the rock formations or a health educator who might be interested in the food pattern, exercises and diseases of people living in the area. With this, schools have often only succeeded in differentiating between disciplines at the cost of ignoring the relationship between them which must not be so.

(c) Disciplines and the nature of children's development – This postulates that children can better learn through basing curriculum on disciplines having the work of Piaget at the back of the mind where he said that the process by which children classify experience is not simply the result of the social norms of the culture they happen to be born into: there is something in human mental structure that facilitates certain kinds of conceptualization. However, a child's development is neither simply a matter of socialization into cultural norms nor is it a question of automatic maturation but a very complex process of the interaction of a developing child with the social and physical environment. So, important distinctions need to be made between the logical ordering of a particular discipline and the "natural" psychological development of the child.

(d) Disciplines and efficient learning – This is a psychological argument different from what you have been reading in b and c, though there are overlappings. Simplification of understanding of knowledge, through structure is very important in this aspect of our discussion.

3.4 The Broad Field Design

This is out to cater for fragmentation of knowledge which the subject and discipline designs are accused of. Here, related subject matters are grouped together and organized with emphasis on large fields or areas rather than on separate subjects. Language Arts may have topics on spellings, reading, language-grammar, - oral communication and literature under it, while Integrated Science topics may have Health Science, Biology, Physics, Chemistry, Home Economics, Agricultural Science under it.

Advantages

(i) It presents to the learner in an orderly and systematic experience the society's cultural heritage and values.

(ii) It integrates different subjects that are related together and so presents a harmonious package to the learner.

Disadvantages

(i) It tends to make teachers master of "all subjects".

(ii) If a teacher trained in one field is made to handle the subject, his/her major interest may dominate the topics covered or well explained to learners.

3.5 The Progressive or Learner-Centred Design

According to Dewey, instead of the society fitting its children to the school curriculum, the curriculum should be tailored to the child's own experiences, needs and interests. Thus, a child learns how to comb, brush his/her teeth, bathe, because the child needs to have good personal health. What one is saying here is that the children's mind should not be a dumping ground of knowledge which is a teacher-centred curriculum but the knowledge must be one that is carefully selected and tested and of interest and use to the learner.

It emphasizes on individuality or individual development and as a result they are less practicable and place heavy demand on the teacher's competence.

Features

(i) The interests of the student do facilitate his/her learning. Most interests are socially derived, hence, attention to them makes the programme more life related.

(ii) Finding common interests and working together in terms of those unifying elements afford growth in life related skills.

(iii) The curriculum is flexible.

(iv) Teachers need to know a greater deal about the growth and development of children and youth.

The curriculum organization is from the students' ability and interest and not from prescribed content which are not pre-planned and these have been its major characteristic.

Here, with emotional involvement of the learner, the whole learning process would become more vivid and hence more valuable. However, for it to be successful, the learners must be active rather than passive, activity must be built along psychological problems rather than around logical topics, the programme must be flexible rather than rigid, democratic rather than authoritarian, must be community oriented and cut across subject lines.

Learner centred designs require a favourable or conducive environment for children to work well and benefit from what they are doing since children come from d ifferent homes. The learning environment will also ensure that the learner or the child does the following:

(a) be considerate to other people's needs.

(b) accepts and operates within the regulations and rules of his/her class but not be timid in giving constructive criticisms on some of them.

(c) shows sign of self discipline and inquisitive mind

(d) recognizes his/her limits and capabilities. All the above can only be achieved through the guidance of a well experienced, and trained teacher.

Since this design, placed much demand on teachers, it is more popular in literature than in actual practice. The three examples of learner-centred designs are the activities/experience design, open classroom and

humanistic design education. The commonest among the them is the activities/experience design which Rousseau and Pestalozzi are best exponents. In this design, children are kept busy all the time with one interesting work and going to another after finishing the first according to the learners' needs and interests. But, this has to take place in a type of environment discussed earlier which is good but very tasking because the teacher is in the dilemma of differentiating between "genuine" needs and interests and whims and fancies of the learners.

For this not to be theoretical on pages of texts, more researches need to be done, but we ask: do we need general interests of learners of certain groups? If yes, it is learner-centred again i.e. where is the individuality in it? If not, what is the option?

Criticisms

(i) Since activities and processes take much of its totality, it is often criticized for its lack of content. However, this is an oversight because it got its knowledge from almost all spheres of human knowledge.

(ii) Students who exclude what does not interest them now may come across them in future.

(iii) Its lack of definite sequence, scope and organization pattern.

(iv) The design demands an extraordinary teacher whose knowledge is very wide in virtually all the fields of endeavour; however, few teachers are trained for this.

(v) Most schools ' textbooks and teaching materials are not t ailored to this design.

(vi) The cost of running this design is enormous.

(vii) Writing, word recognition and numeracy can only be mastered by systematic practice.

Advantages

(i) Learning is relevant to the learners' needs, which makes it meaningful and real.

(ii) The problem solving activities will enable learners to face similar situations in real life.

To justify this design, Taba (1962) wrote that:

People learn only what they experience. Only that learning which is related to active purposes and is rooted in experience translates itself into behavioural changes. Children learn best those things that are attached to solving actual problems that help them in meeting real needs or that connect with some active interest. Learning in its true sense is an active transaction.

Childhood has a meaning and value in itself, apart from its value as a step on the way to maturity. The better the child, that is, the truer he is to his child nature, as such, the better man will he make when the proper time comes. (John Adams, Evolution of Educational Theory, 1915).

3.6 Problem-Centred Designs

Problem-centred designs is like the learner-centred ones developed in man's centred, philosophical assumptions with their structures based on democracy with emphasis on group welfare (man is neutral).

The designs' area of focus is the problem of individual and social problems of living which are very general, broad and all embracing.

With an all embracing organization, its coverage are contemporary issues-socio-geopolitics, areas of living, life situations, social concerns of youths, socio-economic reconstruction of society like the Structural Adjustment Programme (SAP), AIDS/HI V, environmental related issues and community health.

As can be clearly seen, what distinguishes it from other designs is the emphasis placed on group welfare i.e. social needs rather than individuals or the relative degree of emphasis they place on individuals as opposed to social needs.

Characteristics

(i) They are essentially prior-planned or fore-planned but there is room for flexibility to build in necessary developments that might affect the learners.

(ii) They stress both the content and the learners' development by taking their needs, abilities, interest into consideration through scope and sequence.

(a) **The Area of Living Design:** Herbert Spencer's essay (1885), stated that the curriculum should tailor learners to function

effectively in the five basic areas of living that affect all known societies of the world which are:

(i) direct self-preservation
(ii) indirect self-preservation (e.g. getting food, shelter, clothing etc).
(iii) parenthood
(iv) citizenship and
(v) leisure activities all of which are not in place in a subject design curriculum. This can be regarded as the earliest movement towards this design.

Taba (1962) wrote that:

Organising the curriculum around the activities of mankind will not only bring about a needed unification of knowledge but will also permit such a curriculum to be of maximum value to students' day-to-day life, as well as to prepare them for participation in a culture.

The above, together with the work of Herbert Spencer earlier mentioned, can and will continue to guide and motivate this type of design admirers. Its outstanding feature is the organization of traditional subject matter around areas of living and it is also its dilemma because of the determination of the essential areas of living that will constitute the organizing principles of the curriculum.

Advantages

(i) It is a pre-planned reorganization of content that cuts across traditional subject matter lines.

(ii) It focuses on problem solving methods of learning i.e. discouraging passive information but integrating process objectives like skills analysis, human relation skills as well as content objectives.

(iii) The experiences and prevailing situations of learners are utilized as an initial step towards learning.

(iv) Ability to bring learners interest and curriculum goals into the closet functional relationship, thereby making the learners relevant to the societal needs.

(v) Subject matters are presented in a useful form which makes it relevant by transforming content to knowledge which the learners internalized.

Criticisms

(i) Inability to thoroughly determine its scope and sequence.
(ii) Lack of integration and continuity.
(iii) Inadequate exposure of learners to the societal cultural heritage.
(iv) Since learners learn mostly about current appealing issues, the learners might not be futuristic in outlook or be conservative.

Disadvantages

(i) Majority of teachers are not trained along this design and its implementation might prove difficult for them.

(ii) Parents are likely to resist the designs they themselves have not gone through.

(iii) Scarcity of books and other teaching-learning materials produced along this design.

(b) The Core Design

Movements against separate subjects curriculum with fragmentation of knowledge and a call for a coherence of the total curriculum led to the clamouring for a unifying core of studies which the other subjects wou ld be related and subordinate.

Characteristics

(i) It comprises all the parts of the curriculum that teach the needed concepts skills and attitudes needed by the learners to function well in the society i.e. it has the intention of providing common learning or general education.

(ii) Employing a block of time consisting of two or more periods for teaching the core component. This block-time class is just an administrative way which does not greatly affect curriculum design.

There are different types of core curricula which are:

(a) The Separate Subject Core – This consists of a series of required individual subjects taught separately by subject matter specialists. Since it does not legitimately represent a distinct curriculum design and makes no provision for the integration of content, it cannot be properly addressed as core curriculum. It is

just another device of the subject curriculum which we have discussed about before.

(b) The Correlated Core – It is deeply rooted in the subject-centred tradition. It aims to provide common learning in a more coherent form by showin g the relationships between the two or more subjects included in the core.

(c) The Fused Core – Also rooted in the subject-centred tradition, it is based on the integration or 'combination' of two or more separate subjects. History, Economics, Sociology, Political Science may be fused and taught as Social Studies while Physics, Botany, Geology, Chemistr y, Zoology can be combined together and taught as General Science. With this, it looks more of a segment/part of broad fields than core design.

(d) The Activity/Experience Core – It bases ultimate curriculum content and organization on the classroom planning and decision making of learners and teachers. It is normally taught in an extended block time class and embedded in the learners' interest.

(e) The Areas of Living Core – It is regarded as the authentic core design because it is

- problem centred rather than subject centred
- essentially preplanned
- considers the common needs, problems of the learners
- make provision for student-teacher planning
- Practicum in health education course can fix into it.

Finally, on curriculum designs, - the possibility of getting a variety of opinions and answers to the multifaceted questions. The following opinion will clarify many issues:

The way a curriculum is conceptualized in theory and then designed, organized and developed for practical implementation depends on a country's particular philosophy of education, on its national, social, cultural, economic, developmental aspirations, on where it considers the main stream of emphasis should lie.

Should cultural and societal needs or the demands for economic development determine the nature of the curriculum? Should the curriculum be geared to the interests of the child or should it be based on the disciplines of knowledge? Should the emphasis be on generalism or on specialism? Should there be a common curriculum for all students or should there be different curricula for different students? How much

emphasis should be given to psychological and pedagogical considerations, such as learning theory, methodology; how much to situational (local) considerations, e.g. urban, rural, ethnic, community schools? Depending on one's answer to such basic questions of curriculum as to what should be taught, why, to whom, in what manner (i.e. how), where, will our conceptualization of the pattern of curriculum take shape?

4.0 CONCLUSION

Whatever the educational administrators, planners, managers, experts, teachers, students, think about education, it is basic that we can't solely rely on one curriculum design. However, in deciding the curriculum design to use at any stage, the guiding objectives must be well stated, incorporated and at the end evaluated, to see how far we have been successful.

5.0 SUMMARY

In this unit, we have extensively deliberated on the various forms of designs by which curriculum has been fashioned out. The designs range from subject centred, discipline centred, broad field progressive or learner centred to problem centred. We are reminded that there is a need for you as a teacher to familiarize yourself with the details of each of the designs so that if you are called upon to develop a curriculum using any or a combination of the various designs you would be able to do so without any problem. As someon e who is to implement the curriculum at the classroom/instructional level, your knowledge of curriculum design would be found useful.

6.0 TUTOR-MARKED ASSIGNMENT

Differentiate between the progressive or learner centred and problem-centred curriculum design.

7.0 REFERENCES/FURTHER READING

Amri, M.; Ngatia, P. and Mwakilasa, A. O. (2005). *A Guide for Training Teachers of Health Workers*, Nairobi: The African Medical and Research Foundation.

Abbatt, F. and McMalion, R. (1993). *Teaching Health-Care Workers*: *A Practical Guide*, (2nd ed). Macmillan.

MODULE 2

Unit 1 Teaching-Learning Processes I
Unit 2 Teaching-Learning Processes II
Unit 3 Methods of Teaching-Learning I
Unit 4 Methods of Teaching-Learning II
Unit 5 Teaching and Instructional Resources

UNIT 1 TEACHING – LEARNING PROCESSES I

CONTENTS

1.0 INTRODUCTION

Learning can occur as a result of repeated presentation of a stimulus and each person's effort to react to its effects. Some people see it as a modification of behaviour that involves a series of progressive approximations to a successful performance. It is a deliberate act that usually involves the operation of goals and motives and it usually results in gain to the individual. This unit will take the learner through principles of teaching and learning.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- explain what learning is
- list the principles of learning
- discuss what learning is not
- enumerate the factors which affect learning.

3.0 MAIN CONTENT

3.1 Introduction

1. Bower and Hilgard (1986) see learning as the change in a subject's behaviour or behaviour potentials to a given situation provided that the behaviour change cannot be explained on the basis of the subject's native-response tendencies, maturation or temporary states such as fatigue, drunkenness, drives and so on.

2. Onwuegbu, (1979) says learning is a process through which behaviour is initiated, modified or changed.

3. O'Connell (1973) defines learning as a relatively more or less permanent change in behaviour which comes about as a result of experience.

4. Mukherjee (1978) says learning may be defined as the inference from some performance of an organism manifesting a change of behaviour which imply a gain to the organism for his survival values in the organisms.

5. Learning, to Thorndike, was discrete accumulation of stamped in S-R bonds.

6. Learning is a relatively permanent change in a behavioural potentiality that occurs as a result of reinforced practice. (Hengenhann 1982)

7. Gagne, (1970) describes learning as a human disposition or capability which can be retained and which is not ascribable to the process of growth.

3.1.2 Kinds of Learning

Psychologists have classified learning as motor affective, verbal or cognitive. Others say learning may be classified as habit, social, trial and

error, observational, insightful learning and verbal associate learning. Others classifying learning as multiple discrimination, learning of concepts, learning of principles and problem-solving.

3.1.3 Aspects of Learning

There are some notable aspects to the definitions given above. These are:

a) A change in behaviour
b) The change is not temporary but a relatively permanent one
c) Relative to experience
d) It is not directly observable but it is inferable

These aspects need further explanation to make the meaning of learning clearer. Learning brings about a change in behaviour, refers to a new or improved way of doing certain things. This implies a gain to the individual for his survival. The change is usually end uring in nature or it lasts till it is needed. It is recallable. It should help learners to transfer initial knowledge to other situations.

Behaviour may be described as a response to a stimulus which may be external or internal. An example of external stimulus is the effect of naked fire on a child. If a child touches fire, it burns and pains him/her. He/she will remove his hand and not touch fire again. This is because he/she has had a painful experience of fire. An example of internal stimulus is hunger. If one is hungry, from experience, one goes to eat to stop the hunger and the continuous pains. Also, the student who recognizes that he/she must pass his/her examination (stimulus), studies conscientiously (behaviour). This is so because he/she has learnt from experience that good study habits lead to academic success and vice versa Experience is what obtains as a result of having interacted with an environment. It may be direct or indirect experience.

Direct Experience may be regarded as first hand or pragmatic type; a sort of experience by doing. It is characterized by being a times relatively costly, time-consuming, painful and difficult. However, its effects are more enduring, convincing or more readily observable. It enhances learning the more. Extinction does not occur readily when learning is done through direct experience. Examples of direct experience include touching fire or a hot pressing iron. The experience is no longer lasting and more painful than just being told that it is painful. Carrying out an experiment, operating an instrument or doing practical work as in fine art, home economics or the various science subjects lend themselves to learning through direct experience.

Indirect Experience may be regarded as secondhand, vicarious or delegated. This type of experience includes what one is told or reads from print electronic media or what one observes. Extinction readily occurs through indirect experience. Experience obtained is fast, cheap or less painful but at times unreliable. Examples of indirect experience include being told that touching acid is painful and dangerous. Literature, History and Religious Studies are examples of subjects in which indirect experience operates well.

Okoye (1981) sees experience as being dependent on interaction between a learner's innate and environmental factors. The environmental factors should be very stimulating and powerful enough before they can evoke high quality learning.

3.1.4 Evidence of Learning

It is difficult to observe when learning is occurring. It may be inferred that it has occurred in a person's behaviour. However, often, it is exhibited in an individual's reaction to a given stimulus. This indicates the learner's ability to think reason and solve problems. Oladele (1987) said that evidence of learning includes when an individual discovers or invents an original solution to a problem or thinking; or forming a habit or the way a task is handled or performed.

3.1.5 What Learning Is Not

It is helpful to tease out what should not be regarded as learning. Learning is not just ability to write or read. It is not just what happens in the classroom. It is more than these. It is not a temporary change in behaviour. It is not as a result of some physiological changes such as weariness, fatigue or boredom. Instinctive or inertly controlled behaviour or that used on reflex or automatic response system and their accompanying emotions are not learning. For instance, imprintings has shown by ducklings which followed the first moving mother object at a critical period in their lives. Lorenz (1952) made ducklings to follow him as they would follow their mother duck. Other forms of instinctive behaviour include suckling of the mother's breast by a neonate or a goat; and bird or fish migration. Other species-specific behaviour such as cock-crowing, first neonatal cry, walking of a new goat are not examples of learning. Learning is not a process that can be observed directly. It is not a function of the child alone but it incorporates factors and approaches which lie both within and outside the world.

Fatigue

Effects of fatigue are not permanent; often they reflect loss of quality in motor activity performance before rest. The performance may be slower, uncoordinated or disinterested. After adequate rest, fatigue is removed; previous quality of performance may be re-enacted.

Illness, intoxication, administration of drugs, alcoholic drinks or hypnosis may lead to temporary change in behaviour of individuals by either becoming hypoactive, hyperactive or act in any new way such as staggering or un guarded or uncoordinated talk. Any of such may lead to loss in good quality of performance, the type that may not be repeated once their influence is over. Therefore, the change in behaviour may not last and thus could not be regarded as learning.

Maturation

Learning excludes all the changes that result from genetic forces that produce growth such as maturation. Maturation involves the biological processes of growth and differentiation. It is an increase in adaptability and competing according to one's aging process. Humans beings will not be able to do certain things unless they are naturally ripe to do so and no amount of practice or training will assist them to do this. For instance, a neonate cannot eat solid food or a two-month-old baby cannot walk whereas a two-year-old child can eat solid food or walk. For learning to occur, a child must attain a particular level of maturation.

In essence, an exhibition or display of behaviour associated with natural maturational growth is not to be regarded as learning.

Importance of Learning

It is important for every normal individual to learn. It is pertinent to his/her survival. He/she has to learn how to adapt and adjust to the ever changing conditions in today's everyday living. Akinboye *et al* (1981) summarized the importance of learning thus "…if he is to survive and become a successful adult, he (neonate) has to quickly and continuousl y learn to change his behaviour when n eed be and assimilate the norms of his society in langu age, custom, beliefs, personal and social adjustments, attitudes, motivational roles, academic and occupational patterns and goals. Learning produces habits and skills. It contributes to the development of attitudes, motives and prejudices in individuals.

Importance of Learning to Teachers and Students

Knowing learning process will assist teachers to know the best or other alternative strategies to aid them in teaching others. The teachers will come to understand individual differences among his students. He/she can then adapt and use various strategies to teach them. A key contribution of psychology of learning is the concept of motivation. The teacher can know what motivates children of various ages and arrange his/her lessons to satisfy the diverse interests, of such children. He/she can emphasize his/she lessons to satisfy the diverse interests of such children. He/she can emphasize what interests arouses or stimulates, learning efforts of his/she students and eliminate or de-emphasized what may create disinterest or fear in the learners.

With the knowledge of learning, the teacher can know what aids remembering and factors responsible for forgetting. He/she will make efforts, to make learning efficient for the learners by highlighting what can aid their memory. The trend in psychology of learning is to emphasize social psychology of learning. The teacher can arrange his class in a more socially conducive ways. This can lead to better learning for the learners. Psychology of learning has been described as a critical area in teacher preparation, the curriculum structure as well as methodology to be used in classes. Learning can be used to improve the quality of life of individual and his society. It is expected to surpass the satisfaction of biogenic needs. It is applicable to various disciplines and subjects. It is comprehensive in nature in that it involves cognitive, affective and psychomotor dimensions of behaviour.

Apparatus Used For Learning

Bakare (1969) postulated a hierarchy of cognitive skills thus: perception, conception, language, memory, reasoning and creativity. In other words, in order to learn, someone must be able to perceive things around him/her. Each normal person has five sense organs. These are two eyes for seeing, two ears for hearing, nose for smelling, tongue for tasting and skin for feeling sensation. Learning occurs best when all the sense organs are present and are working efficiently. Any loss or defect in any of the sense organs adversely affects learning. All the sense organs have exteroreceptors on the body surface as well as internally, interoreceptors i.e. nerve endings which radiate the body. The nerves pick up messages and relate them to the Central Nervous System (Brain in particular).

3.2 Principles Involved in L earning

Akinboye *et al* (1981) listed the following general principles of learning:

- Learning is experiencing, doing, reacting and undergoing.
- In learning, responses are modified by their consequences.
- Learning is accelerated when the learning task and strategy are meaningful to the learner.
- Learning occurs around varied experiences with a unified purpose and with something or somebody.
- Learning initiated by need and purpose may be very energetically pursued.
- The extent to which learners persist inspite of difficulties, obstacles and unpleasantness is partly determined b y the extent to which he perceives the learning objectives as useful.
- Learning is affected by individual differences.
- Individuals learn better when the experiences, goals and materials are adjusted to the maturational level of the learner.
- Learning is to a large extent affected by the inspirational level of the learner.
- Individuals learn better when satisfying result follow previous learning episodes.
- Learning is affected by the learner's attitude to authority e.g. teachers.
- Learning is a product of socially useful patterns of actions, values, meanings, attitudes and self concept.
- Learning is complex, dynamic, continuous and adaptable.
- Learning activities can be transferred.
- Repetition is an essential strategy in learning.

- Learning in groups is accelerated when criticisms within the group is removed.
- A motivated learner learns faster and better than the unmotivated.
- Both positive and negative reinforcement principles accelerate learning when skillfully, consistently and contingently used.
- Vicarious experience e.g. through provision of adequate model helps learning.
- Learners with adequate learning readiness learn faster and better.
- All learning principles can help the teacher to be more effective.
- Learner's personality is a product of learning experiences.
- Learning is accelerated when the learner's security is presumed.
- Factors that affect learning are almost limitless.

The above list embraces the major aspects of learning. Many of these principles will be discussed subsequently.

3.3 Factors Which Affect Learning

Several factors affect learning. For convenience, they may be classified into two groups: natural and environmental. It is now accepted that both groups, nature and nurture (environment) play complementary roles in each person's ability to learn.

3.3.1 Natural or Hereditary Factors

These are factors one is born with or what one inherits from one's parents. The factors may also be termed genetypic or internal or genetic factors. According to Akinade (1989), they include:

- Genetic endowment e.g. brain quality.
- Intellectual ability e.g. giftedness, above average and below average.
- Quality of sense organs e.g. normal or defective eyes, ears, nose etc.

- Personality types (introvert, or extrovert types).
- Cognitive styles (e.g. reflective or impulsive, independent or dependent).
- Attitude to learning (positive or negative).
- Aptitude.
- Interest; participation of the learner.
- State of anxiety (high or low); parental background.
- Loss of control.
- Emotions felt by learner's level of maturity.
- Sex; age and self-concept.

3.3.2 Environmental Factors

These may also be termed acquired, external or phenotypic factors. These are factors acquired after one is born. Examples include the home, school, teachers, peers and culture of the people.

3.3.2.1 Home Factors

Home factors that may influence learning include:

a. Home environment with particular reference to its location (affluent or slum area). It could be educationally stimulating, good or bad. It could be emotionally fertile or barren.

b. Socio economic status of parents or guardians i.e. how rich and respected in their neighbourhood. The rich ones may help to provide educational toys, materials, gadgets and electronics such as radio, television and computers.

c. Attitude of parents to schooling. Parents – child (learner) relationship.

d. Quality and quantity of feeding at home.

3.3.2.2 School – Related Factors

The factors related to the school include:

- Type of ownership of school – Is it federal, armed forces, university, private, state government or community owned school?
- Quality and moral tone of the school and its products.
- Location of the school, rural or urban.
- Types of curriculum available-wide or narrow? What subjects/courses are taught in the school?
- The types of facilities available for students.
- Class size – manageable or overpopulated?
- System of examination – use of continuous assessment.
- Child's sociometric status/popularity in his/her class or school.
- The tradition of the school.

3.3.2.3 Teachers Factors

- The number of teachers; th e more adequate the better the learning by students.
- Quality of training received by the teachers; the higher the training, the better.
- Relevance of teacher's qualification to what subject the teacher teaches – the more relevant the better.
- Work load (teaching and administrative) of teachers the lighter the better.
- Quality of teaching methods and materials used by the teachers-the higher the quality the better.
- Teacher's personality and respect commanded by him/her.
- Quality of his/her interest in the job.
- Teacher's attitude to work – the more positive the better as opposed to truancy, lateness, absenteeism and general disinterestedness.

Other factors which affect learning include:

a. Role of Parents Teachers Association (PTA) in the school

b. Cultural influences; situational opportunity.

c. General attitude of people in the society to education.

d. Role of government – the more encouraging or supportive, the better.

e. Climatic factors e.g. too much cold or heat is bad for learning.

The above reveal the fact that several factors inter-act in diverse ways to influence human learning.

4.0 CONCLUSION

It is important for every normal individual to learn. It is pertinent to his/her survival as he/she has to learn how to adapt and adjust to the ever changing conditions in today's everyday living. If he/she is to survive and become a successful adult, he (neonate) has to quickly and continuously learn to change his/her behaviour when need be and assimilate the norms of his/her society in language, customs, beliefs, personal and social adjustments, attitudes, motivation roles, academic and occupational patterns and goals. Learning produces habits and skills, it contributes to the development of attitudes, motives and prejudices in individuals.

5.0 SUMMARY

Learning is said to be a relatively permanent change in behaviour due to experience. Learning occurs in all humans. Learning is important for every normal individual especially learners and teachers. All factors that affect learning must be well managed by the teacher so that learning can be enhanced.

6.0 TUTOR-MARKED ASSIGNMENT

How can school-related factors affect learning?

7.0 REFERENCES/FURTHER READING

Saylor, J. G. and Alexander, W. M. (1974). *Planning Curriculum for Schools.* New York: Holt Rinehart and Winston, Inc.

Onwuka, U. (1981). *Curriculum Development for Africa*, Onitsha: Africana Fep. Publishers.

Manson, E. J. and Bramble, W. J. (1989). *Understanding and Conducting Research*. New York: McGraw Hill Book Company.

Stenhouse, L. (1975). *An Introduction to Curriculum Research and Development.* London: Heinemann.

Esu, A. E. O. (1987). Educational Objectives and the School Curriculum: An Analytical Approach, *Nigerian Journal of Curriculum Studies* 5(2) 48-58.

World Conference of Organisations of the Teaching Professions (1987). A Curriculum Development Manual.

Kelly, A. V. (1982). *The Curriculum Theory and Practice,* (2nd ed.) London: Harper & Row Publishers.

UNIT 2 TEACHING – LEARNING PROCESS II (THEORETICAL FRAMEWORK)

CONTENTS

1.0 INTRODUCTION

In the previous unit, we attempted a detailed discussion on the concept of teaching and learning. Remember, we gave some definitions of the two terms. By now, you are expected to have thought of your own. If you have not, don't hesitate further to do so. Further reflect on what you consider to be answers to the following questions: What is learning? How do people learn? What is teaching? What is the job of a teacher? Which learning and teaching activities are effective? and how can I choose and use?. Let us take further steps in getting to know mo re about teaching-learning process by considering some learning theories as propounded by their proponents.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- identify the main theories of teaching and learning
- explain briefly the contributions of some theorists to teaching-learning development.

3.0 MAIN CONTENT

3.1 Theories of Learning

3.1.1 The Major Learning Theorists

There are three main groups:

1. Behaviourists
2. Cognitive theorists
3. Humanistic/Social Psychologists

The following is a brief description of the contributions of these educational theorists.

3.1.2 Behaviourists

B. F. Skinner

Skinner's theory suggests that learning will occur and behaviour will be shaped in the direction the teacher wants if the behaviour is rewarded. In order to maintain the strength of that learning behaviour, reinforcement or continued rewards are necessary. To be effective, the reinforcement must be immediate and positive. Successive steps in the learning should be as small as possible, each successful act being followed by a reward.
Comment: Skinner's research was based on the behaviour of rats and pigeons. Application of his theory has been with young children; it is not very successful with adult learners. Programmed learning was based on this theory.

Other behaviourists of the 1920s

Thorndike proposed that learning is more meaningful when the outcome (objective) is made clear.

Pavlov dealt with conditioned reflexes, punishment and reinforcement.
Watson recommended active participation/learning by practice.

R. M. Gagne

Gagne categorized learning into different domains so that the different conditions for learning in each category can be identified. In this way, teaching and assessment can be planned accordingly. The domains

identified by Gagne are motor skills, verbal information, intellectual skills, cognitive strategies and attitudes.

Comment: Gagne's approach is a useful one in planning effective learning experiences, e.g. skills cannot be learned unless students are given opportunities to practise under supervision and given feedback on their performance.

3.1.3 Cognitive Theorists

B. S. Bloom

Bloom proposed three domains: Affective (attitudes), Cognitive (knowledge) and Psychomotor skills.

Within each domain it is proposed that there is a hierarchy of learning objectives: from the more basic types of learning to the more complex types of learning.

Comment: Bloom's contribution serves as a reminder that learning objectives should be set as high up the hierarchy as is appropriate for a given students group. This is particularly true at the tertiary level where it is hoped that students will learn higher level skills rather than just remembering facts.

N.B. There is an overlap in the domains proposed by both Gagne and Bloom. Many learning tasks will consist of knowledge and skills or attitudes e.g. most skills involve a certain amount of knowledge and appropriate attitudes for their proper performance.

D.P. Ausubel

Ausubel dealt with learning within the knowledge domain. He proposed that details of a discipline are learned only when they can be filled into a framework consisting of a stable and appropriate body of general concepts and principles. New information should fit into existing information rather like a key fitting into a lock.He suggests that teachers begin by introducing material at a fairly general level and making explicit the relevance of that material to the task to be learned.

Comment: The theory is the basis for the practice of beginning with the learner's existing knowledge and building on to it.

Example: In teaching about the knee joint one could begin by saying that the knee joint resembles a hinge and asking the class to recall the features of a hinge joint.

J. Bruner

Bruner takes the learner as the focus for his theories and as an active participant in learning. The learner actively selects and transforms information. Students should be encouraged to work out things for themselves. He believes, as does Ausubel, that the student constructs knowledge by relating new information to a previously acquired psychological frame of reference which gives meaning to the new information.

Comment: Bruner is largely responsible for the trend towards discover y learning in schools. Discovery learning provides students with goals and resources and allows them to work out answers to problems through their o wn efforts and the use of appropriate resources. In this setting, th e teacher becomes a manager of resources rather than an instructor. Innovative medical school curricula have followed this approach.

3.1.4 Humanistic and Social Psychologists

Carl Rogers

Rogers provided a learner-centred view of learning. His main propositions are that:

- All humans have a natural potential and desire to learn.
- Learning occurs when the student perceives relevance related to his/her own purposes.
- Learning is more effective when external threats are eliminated.
- Significant learning is acquired through doing.
- Learning is more effective when the learner is responsible for choosing his/her direction, discovering resources, formulating problems etc.
- Most learning is self-initiated and involves the whole person, including feelings as well as intellect.
- Self-evaluation is a basic skill and necessary for effective mature learning.
- Learners should retain a continuing openness to change.

Comments: Rogers' approach contributed to adult learning principles. The use of small discussion groups where the teacher is a guide and friend rather than a leader has become increasingly popular and is based on Rogers' philosophy.

Abraham Maslow

Traditional teaching and learning concentrated on force-feeding and prescribed knowledge which neglected the development of the student as a person with a role in society. Maslow says that education should help students to look within themselves and from this self-knowledge to develop a set of values which will guide them in life.

Comment: Malsow has emphasized the importance of learning for self-enhancement rather simply for utility. This view is relevant to adult learners who decide to continue their education out of interest rather than in order to gain qualifications. Implicit in this approach is the importance of the individual in deciding what to learn and how to learn it.

It has already been noted that teaching is helping people learn. Some of the ways people learn have also been considered. If we consider again some of the conditions of learning in the section "Learning is the main activity", we can see some of the ways the teacher can help learning. In this section, some ways a teacher can use to help students learn have been identified. Teachers should:

1. consider students as individuals, each engaged in learning on their own. Try to make sure that each student gets what he/she needs.

2. motivate students to learn.

3. give feedback to students: tell them how they are doing; correct their mistakes, encourage them to continue. Also encourage students to provide their own feedback; check their work for mistakes, etc.

4. help students to make sense of what they are learning by showing how it is relevant to them.

5. provide plenty of practice and repetition of what they learn.

6. organize what is to be learned so that students find it easy and systematic.

7. help students see very clearly what they are learning.

All these suggest in general terms what the teacher can do. Let us sum up the roles of the teacher.

3.2 What Makes a Good Teacher?

To teach is to help people to learn. Teaching is effective if it results in desirable learning. In teaching healthcare, the fundamental aim is to prepare students to provide effective and appropriate health care. So the question of how good the teaching has been can (in theory) be best answered by finding out how well the student provides health care after the course.

In practice, this approach is not always helpful to the individual teacher. Firstly, learning is not affected just by one teacher. Learning is influenced by many teachers and by conditions over which the individual teacher has little control. Secondly, information about how graduates perform in practice often reaches the teacher too late. The teacher cannot use such information to help the students affected. Thirdly, information about the effect of teaching alone does not help to improve teaching because it does not tell us what went wrong and how teaching should change. You may then want to ask – Why then are we teaching health education as a school subject? You should not have an impression that there is no means by which the teacher can influence positively the behaviour of the learners under his/her care in the class or in the school situation. One means by which the teacher can ensure effective teaching is by continuously engaging him/herself in self-evaluation.

Self-evaluation of teaching skills

To assess your own teaching we suggest that you follow a number of steps. The first step in self-evaluation is to recognize that improvement is possible for you. If you don't believe that you can improve, this course may not be as useful to you as it should.

The second step is to become aware that teaching is a complex activity that has many parts. To study your own teaching you will need to become aware of the parts of the teaching process.

The third step is to decide what aspect of your teaching you are most interested in examining. You may choose aspects that you are simply interested in pursuing or that you feel need the most attention at this time. The point is that we would like you to make a commitment to look at those aspects of your teaching that are of the greatest interest to you.

The final step involves using the materials provided in this course to look carefully at what you do as a teacher and the effect you have on your students.

3.3 The Six Tasks of a Teacher

Planning

- Decide what students should learn (prepare objectives/tasks).
- Put the content in a suitable sequence.
- Allocate amounts of time to different learning activities.
- Select learning activities and teaching methods.
- Choose assessment procedure (including methods and timing).
- Identify resources needed.
- Inform the students about the plan.

Communication

- Tell, explain, advise.
- Help students to exchange ideas.
- Provoke students' thinking.
- Use varied teaching techniques.
- Check whether students understand what you are teaching.

Providing resources

- Prepare, select or adapt educational materials (audio visual, realia(real-objects), hardware, software, etc)
- Arrange learning experiences, especially opportunities to practise skills (field visits, attachments and projects).
- Involve health service personnel in teaching.
- Arrange access to materials (such as libraries, audio-visual programmes and microscopes).

Counselling

- Show students that you care. Listen and show empathy.
- Help students to identify their options and to make their decisions.
- Provide advice and information that helps students.

Assessment

- Design an assessment that measures how much students have learnt.
- Use the assessment to guide students' learning.
- Use the assessment to give feedback that modifies teaching.
- Use the assessment to decide whether students are competent to provide health care.
- Encourage students to use self-assessment and peer-assessment.

Continuing self-education

- Know the subject matter that is taught and where to find relevant information.
- Know the way in which health care is provided locally.
- Set an example as a continuous learner.

When you have looked at the six tasks of a teacher:

- Go through the list again and consider whether you have done each of the tasks.
- Decide which aspects are of the greatest interest to you.

4.0 CONCLUSION

Many people learn many things on their own from books or from their friends, without actual teaching. But teaching that does not produce learning is just hot air, it may appear to be teaching from the outside but

if there is no learning there cannot be real teaching. The real activity that we are concerned with is getting, helping or encouraging people to learn.

5.0 SUMMARY

You have gone through some basic theories of teaching and learning in this unit with the contributions of the theorists to the development of teaching/learning process.

6.0 TUTOR-MARKED ASSIGNMENT

Describe how teachers can help people to learn.

7.0 REFERENCES/FURTHER READING

Saylor, J. G. and Alexander, W. M. (1974). *Planning Curriculum for Schools.* New York: Holt Rinehart and Winston, Inc.

Onwuka, U. (1981). *Curriculum Development for Africa*, Onitsha: Africana Fep. Publishers.

Manson, E. J. and Bramble, W. J. (1989). *Understanding and Conducting Research*. New York: McGraw Hill Book Company.

Stenhouse, L. (1975). *An Introduction to Curriculum Research and Development.* London: Heinemann.

Esu, A. E. O. (1987). Educational Objectives and the School Curriculum: An Analytical Approach, *Nigerian Journal of Curriculum Studies* 5(2) 48-58.

World Conference of Organizations of the Teaching Professions (1987). A Curriculum Development Manual.

Kelly, A. V. (1982). *The Curriculum Theory and Practice,* (2nd Ed.) London: Harper & Row Publishers.

UNIT 3 METHODS OF TEACHING – LEARNING I

CONTENTS

1.0 INTRODUCTION

Variety is the spice of life. This simple expression underscores the importance of variation in teaching methods. Learning can be great fun but it can only be fun if the right method is applied at the right time to the right type of learners and the learners benefit from the experience. Short of this, learning continues to be torture and a waste of time. One way of making learning fun is to vary the teaching methods. There are as many teaching methods as there are things to be taught. This unit will take you through several methods of teaching which you can vary when teaching is done.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- explain the various teaching methods
- discuss the advantages and disadvantages of the various teaching methods
- select appropriate teaching-learning methods for use in a particular learning activity/situation
- assess the effectiveness of the various teaching methods.

3.0 MAIN CONTENT

3.1 The Meaning of Methodology and Teaching.

3.1.1 Methodology

The term methodology is generally used to mean the study of methods. In terms of the present content, methodology is used to refer to the study of methods of teaching. According to the National Teachers' Institute (2007), methodology is both the study of different methods and the systematic means of presenting subject matter and learning experiences. The *Oxford Advanced Learner's Dictionary* describes method "as a particular (systematic) way of doing something". By inference therefore, teaching methods are systematic ways by which knowledge is imparted.

3.1.2 Teaching

The most noticeable task of the teacher is "teaching". Indeed, it is named by the word "teaching". Teaching is a deliberate act of systematic planning of a set of interrelated activities usually between th e learners and the teacher with a view to producing a desirable effect on the learners. In carrying out teaching, whether in a classroom, within a school or outside the school environment, there have been tested methods that have long been established as a means by which the job of teachers can be done. In short, while you will be introduced to some methods of teaching, from the onset, you are to note that in teaching, we emphasise understanding and usage of a variety of methods of teaching.

This is because of the following reasons:

- Individuals are different, one method may be effective for one learner but not for the other.
- Every task involves a number of sub-tasks which are carried out differently. One teaching method may not be appropriate for all sub-tasks.
- Variations of teaching methods result in variation of stimulus. This is important for sustaining attention and interest.

3.2 General Principles in Teaching

Helping the students learn is a major task of the teacher. The old concept of the teacher being the donor of knowledge and the student a mere recipient of the donation is replaced by a more realistic approach in which a teacher acts as a facilitator or helper of learning. There are several ways in which you can help students learn.

- **Active Learning**

Give students some activity to do, e.g. ask questions, set problems or projects. Students learn by doing these activities. Give feedback; tell students how well they are doing things, what was done poorl y and how they could have done better.

- **Clarity**

Make your teaching clear, speak loudly, write neatly, use visual aids and make your teaching meaningful to the students and to the problems.

Ensure mastery

Assess individual students' knowledge of the subject.

- **Individualize**

Allow for individual differences and abilities. Vary your teaching methods.

- **Motivation**

Make your teaching interesting, relevant and rewarding.

3.3 How knowledge, Skills and Attitudes Are Taught

As we said, there are many teaching methods. A group of trainers was asked to quickly list the methods they use in their teaching. They came up with the following:

- Drama
- Brainstorming
- Field visit
- Symposium
- Value clarification
- Seminar
- Job attachment
- Story telling
- Small groups
- Songs
- Apprenticeship
- Workshop
- Congress
- Poems
- Research
- Practicals
- Programmed instruction
- Correspondence
- Reading assignments
- Case studies
- Tutorials
- Simulation and models
- Role play
- Nominal group process
- Syndicate groups
- "Snowballing"
- Games
- Debates
- "Using triggers"
- Using idioms and sayings

- Panel discussion
- Interview
- Lecturing
- Role-modelling
- Radio, newspapers
- TV, films
- Critical incident technique

There is no shortage of teaching methods as this list shows, but people do not always agree on what are, or are not, teaching methods.

SELF ASSESSMENT EXERCISE

1. Examine the list above and add to it. Discuss those items which you feel are not valid teaching methods.

2. Examine whether the methods teach skills, knowledge or attitudes. Note that some methods can be used to teach more than one domain. Mark each item in the list according to whether you think it teaches skills (S), knowledge (K) or attitudes (A).

Good teaching involves much creativity and planning. A teacher who relies on one method only is not likely to help students learn much.

3.4 Teaching and Learning Methods

In this section, an attempt is made to review several teaching methods. The amount of information given is limited to a brief overview, advantages and disadvantages.

3.4.1 Lecture

A lecture is a lesson given orally by a teacher, with virtually no student participation. It can be distributed in printed form. This lack of student participation is the main characteristic of the lecture in its traditional form.

Advantages	Disadvantages
1. It provides an economical way of using staff time	1. It is a one-way learning process in which students are just listeners. There is no active participation by students or practice of what has been learned.
2. It provides a wide field of knowledge in a limited time	2. It is relatively ineffective for changing attitudes
3. It provides an up-to-date view of the subject and the latest result	3. It pays little regards to individual differences of students

4. It is an alternative method of teaching when books are in short supply	4. It does not provide immediate feedback to lecturer
5. It can include material that is not readily accessible in textbooks	5. It does not encourage creative activity on the part of the students
6. It can save a student's time by summarizing a field of study	6. It is not capable of helping to achieve all educational objectives
7. It is a good means of introducing a subject	7. The student tends to regard knowledge as a closed system.
8. The lecturer can inspire the audience with his/her enthusiasm	8. It cannot provide necessary repetition
9. It is as effective as other methods for imparting information but not more so	9. It cannot teach the skills to be acquired by the students.
10. Where the lecturer has not provided a syllabus, lecturers will indicate to students the subject matter that is likely to be examined.	10. Students' rate of learning declines as the lecture proceeds.
	11. Information comes from a single source.
	12. It usually provides little time for questions
	13. It does not provide for team work
	14. It does not help develop inter-personal relationships between students and teachers
	15. It is less popular with students than other methods when there are many lecturers.
	16. Students of lower ability are probably helped more in their acquisition of knowledge by discussion
	17. For the interpretation of knowledge and problem solving, discussion is probably more effective than lectures.
	18. To achieve the required standard of clinical performance other forms of learning and actual practice are essentials.

3.4.2 Practical

Practical work is a situation where students learn in their future working areas.

Advantages	Disadvantages
1. It provides a better understanding of lecture and demonstration presentation.	1. It is not an economical way of using manpower and resources.
2. It provides activities and leads to creativity on the part of the student.	2. It takes time to carry out practical work.
3. It is effective for stimulating independent thought and changing attitudes.	3. It needs administrative staff for preparation and maintenance of materials.
4. It is a good way of achieving a desired competence for the student.	4. It needs special accommodation.
5. It provides immediate feedback on performance of the teacher.	
6. It provides time for the individual student to be helped by the teacher.	
7. It provides an opportunity for developing interpersonal relationships between teachers and students.	
8. It provides as opportunity for detailed discussion of the students' work.	
9. It is a two-way learning process.	

3.4.3 Field Visit

Courses for health-care staff often include field experience. In this case students go away from the training school to actually do the work for which they are being trained.

Advantages	Disadvantages
1. It provides the actual situation in the field; something that cannot be learnt in school.	1. It is not an economical way of using manpower and resources.
2. Students can observe and/or participate in the use of theory through first-hand experience in an actual field situation.	2. It creates administrative problems in arranging programmes.

3. It provides a situation for creative and independent thought on the part of the student.	3. It may confuse students because there is usually a wide gap between field practice and academic theory.
4. It provides an opportunity for developing interpersonal relationships between students, teachers and field staff.	4. If it is not well supervised it might become just like a picnic.
5. It can help promote the desired competence and attitudes.	
6. It provides time for questions and discussions.	
7. Information comes from multiple sources.	

3.4.4 Demonstration

Advantages	Disadvantages
1. It provides an economical way of using manpower and materials.	1. It is a one-way learning process from instructor to students.
2. It provides audio-visual observation of the subject.	2. Students are just passive observers.
3. Students will understand the subject better when they see a demonstration of a lecture.	3. It may not provide for activity on the part of the students.
4. It may be a good means of teaching where the resources are in a supply.	4. It may not provide necessary repetition depending on the individual's pace of learning.
5. It provides a way of pacing a student's rate of working.	5. It has little regard for student's individual differences.
6. It can provide a wide field of knowledge in a limited time.	6. There is no immediate feedback to instructor on what has been learnt.
7. It provides opportunities for learning how to do something, well as what to do (e.g. gentle, sympathetic).	7. It is relatively ineffective for achieving competence, unless students are given opportunities for practice.

Note to Facilitators: Wherever possible demonstration should be followed by practice on the part of the students.

3.4.5 Individual Learning

Advantages	Disadvantages
1. Students can work at their own individual pace	1. It is an uneconomic way of using resources.
2. Students can learn at the time and place of their choice.	2. The programmed materials have been maintained.
3. Students can request teaching whenever necessary.	3. It needs administrative staff.
4. Students can omit any parts they already know.	4. Information usually comes from a single source and may be a one-way learning process.
5. Teachers can prepare a standardized body of information beforehand.	5. No team work and no interpersonal relationships between students.
6. Students are exposed to a standardized body of information.	6. It takes time to prepare materials for individual learning.
7. The method can provide for creativity and independent thought on the part of the student.	
8. It has regard for students' individual differences.	
9. It can help achieve the desired competence.	
10. It can provide immediate feedback to the teacher.	

3.4.6 Seminar

A seminar is a session headed by a teacher, a trained senior student or an enthusiastic student from the class, where an assigned subject is discussed. The subject has to be prepared beforehand and presented by different students. The other students will then discuss, criticize and comment on the material presented. When the teacher is not present during the seminar, he/she should be available to be consulted by the group. This is important as the students may need to confirm factual information with the teacher.

Advantages	Disadvantages
1. It promotes interpersonal relationships between students.	1. It is not an economical way of using manpower unless senior students act as supervisors and teachers are only called in as consultants.
2. Students can learn a lot from each other.	2. It is too slow to be able to cover more than a limited amount of subject matter.
3. It allows for team work and personal flexibility.	3. It may suffer from interruptions.
4. It provides a method of learning in the future.	4. It cannot provide the repetition necessary for individual needs.
5. Teachers can encourage full participation by all students.	5. Some active students might become dominant.
6. It provides creativity and independent thought on the part of students.	
7. It provides immediate feedback of knowledge gained.	
8. It facilitates exchange of ideas.	
9. It trains students to work independently in preparing papers for presentation.	
10. It provides greater control of communication between students and teachers.	
11. Students' performance does not decline with time.	
12. Students learn how to express themselves clearly.	

4.0 CONCLUSION

It has been seen that for teaching-learning to be effective, methods of teaching learning must be varied. Also, no single method of teaching-learning is perfect in getting information across to the audience rather the teacher should know which methods should be adopted for the benefits of the learners and teachers.

5.0 SUMMARY

Varying methods of teaching will make a better teaching-learning process so you must adopt several methods of teaching. You must have enjoyed this unit as you are already assessing yourself over the previous teachings you have done.

6.0 TUTOR-MARKED ASSIGNMENT

Discuss the advantages and disadvantages of lecture and demonstration methods.

7.0 REFERENCES/FURTHER READING

Saylor, J. G. and Alexander, W. M. (1974). *Planning Curriculum for Schools.* New York: Holt Rinehart and Winston, Inc.

Onwuka, U. (1981). *Curriculum Development for Africa*, Onitsha: Aficana Fep. Publishers.

Manson, E. J. and Bramble, W. J. (1989). *Understanding and Conducting Research*. New York: McGraw Hill Book Company.

Stenhouse, L. (1975). *An Introduction to Curriculum Research and Development.* London: Heinemann.

Esu, A. E. O. (1987). Educational Objectives and the School Curriculum: An Analytical Approach, *Nigerian Journal of Curriculum Studies* 5(2) 48-58.

World Conference of Organisations of the Teaching Professions (1987). A Curriculum Development Manual.

Kelly, A. V. (1982). *The Curriculum Theory and Practice*, (2nd ed). London: Harper & Row Publishers.

UNIT 4 METHODS OF TEACHING – LEARNING II

CONTENTS

1.0 INTRODUCTION

This unit covers teaching-learning methods as tutorial projects, small-group discussion, simulation, role-play, critical-incident technique. We will also look at how to decide which method to use and how attitudes are taught. No doubt you will find this unit interesting as you will gain a lot from it as you are prepared for the task ahead.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- describe and state advantages and disadvantages of four of the teaching-learning methods
- explain how to decide which method to use in teaching-learning process
- discuss how attitudes are taught.

3.0 MAIN CONTENT

3.1 Tutorial

A tutorial is a discussion session between a teacher and a small number of students. The smaller the number of students the more effective the tutorial. The number of students in a tutorial should not be more than eight. The best teacher teacher-student ratio is 1:1. a tutorial must not be

a mini-lecture given by the teacher. The teacher should talk as little as possible and encourage the students to think and learn independently.

Advantages	Disadvantages
1. Communication of knowledge is two-way between teacher and students.	1. It is not an economical way of using manpower.
2. It provides personal contact between students and teachers.	2. It moves too slowly to cover more than a limited amount of subject matter.
3. It provides activity for the students.	3. Students need to do some work on the subject beforehand.
4. Teachers can give full attention to individual differences between students.	4. It is liable to interruptions.
5. It provides an opportunity for detailed discussion of students' prepared work.	5. It cannot provide the repetition necessary depending on the individual.
6. It provides immediate feedback for both teacher and student.	6. It may be dominated by the instructor or an active student.
7. Less able students can be helped by the teacher.	
8. Students' performance does not decline as time proceeds.	
9. It encourages creativity in students, including the application of knowledge and problem-solving.	
10. The students tend to regard knowledge as an open system.	
11. It is relatively effective in changing attitudes.	
12. It provides time for questions.	
13. It provides more understanding of the lectures.	

3.2 Project

A project is an assignment given to an individual student, a pair of students or a group of students in which they carry out a piece of independent work on a particular topic. The students have to organize the assignment and prepare a written report to submit to the teacher. A project may be relatively simple, e.g. to be carried out within a week, or it may be more complex, e.g. to be carried out over a period of several months or even a year.

Advantages	Disadvantages
1. It provides activities and calls for creativity on the part of students.	1. It takes time to carry out a project.
2. It encourages initiative in the students.	2. Students may find the project adds too much to their work load.
3. It encourages students to be independent.	3. It creates administrative problems in arranging programmes.
4. The results of a project provides feedback of students' progress to the teacher.	4. Unless sufficient time is allowed, the student may produce a superficial report and gain the impression that this standard of work is good enough.
5. It provides opportunities for interpersonal relationships between students.	
6. Students can work at their pace.	
7. It may provide opportunities for interpersonal relationships between students and people from other departments.	
8. Information comes from multiple sources.	

3.3 Small Group Discussion

Small-group discussion is an appropriate technique for encouraging students to analyse, synthesize and evaluate the knowledge that they acquire (higher order cognitive skills). For example, this method would be highly inefficient for teaching the psychomotor skills of tonometry but, on the other hand, the most appropriate for helping students analyse some of the causes of glaucoma. Group discussion can be instructor-centred or student-centred.

Advantages	Disadvantages
1. Allows use of the resources of the members of the group; there is shared commitment to learning; students help each other with difficult points.	1. Dominance of vocal and aggressive members over others in a group may hinder equal growth of all members in the learning process.
2. Provides students with opportunities to interact with the instructor and fellow	2. Group discussion does not guarantee that an objective will be accomplished within a fixed

students.	time.
3. Students learn to evaluate the logic of and the evidence for their own and other's positions, i.e. learning is through self-expression and inter-communication.	3. The members of the group must bring to the discussion a body of information sufficiently broad and deep.
4. Allows learners to become active participants in the learning process rather than passive recipients of information from one source. Work becomes more interesting; there is greater motivation to learn.	4. Lack of planning by the group leader or the group itself concerning the agenda and specific learning objectives.
5. Provides an opportunity for the synthesis of varied experiences and data derived from lectures, laboratories, clinics and readings. The student grasps the idea of self-learning without fear of going wrong because mistakes are corrected by the group or teacher, i.e. there is immediate feedback.	5. As the size of the group increases, the efficiency and effectiveness of the method will decrease.

Note to Facilitators: To be successful, group discussions must have a specific content and clearly defined goals or outcomes.

3.4 Simulation

This instructional method is used to enable students develop skills in dealing with "real-life" situations and "problems" in a classroom setting. Simulation is the general instructional process which is usually classified into two types: simulation games and simulators.

Examples of simulation games are written case histories with multi-choice questions or presentation of a laboratory report on interpretation of chest sounds on a tape.

Examples of a simulator are operational models such as the obstetrical phantom or model for incubation.

Simulation games are educational games designed to provide students with the opportunity to practice and develop skills in problem solving,

decision making and communicating. Simulation games enable students to act out, through the technique of role play, real-life situations.

A simulator is a device or a model that represents a real-life situation and permits the student to interact with it in practising skills relevant to that real-life situation.

Advantages	Disadvantages
1. Simulation can make a link between the training situation and the real-life situation. The more similar the stimuli in the situations, the more positive transfer there is from one to the other.	1. Simulation techniques cannot simulate all dimensions of a real situation.
2. Simulations provide a responsive environment. There is always some immediate feedback.	2. The planning and development time required for a simulation technique may prove to be costly.
3. Simulation is a relatively cheap method and often provides experience in a low-cost model for a high-cost environment.	
4. Simulations can telescope time. Problems of real life can be programmed in advance and dealt with over a variable length of time. The opportunity to confront real problems in hypothetical settings means subsequent problems cause less alarm, greater confidence and less harm to all involved.	
5. Simulation allows learners to make their first serious mistake in a simulated situation rather than in a real one.	

Note to Facilitators: The usefulness of simulation depends on its fidelity (i.e. its accuracy or nearness to reality).

3.5 Role Play

Role pla y is when the teacher suggests a situation and students are given roles to play. This technique is somewhat like an ordinary play in which each participant is assigned a character, but in this case no lines are

learned. The individual playig a specific role provides his/her responses to the situation. Tis technique is appropriate for an instructional objective in the higher cognitive and affective domains.

Characteristics of role-play techniques

- Role-play deals with a well-structured problem situation.
- The problem situation should not be concerned with the personal problems of the role players. However, the situation should be familiar enough for the student s to be able to understand the roles and their potential responses to the problem.
- The objectives of the role-play session should be made explicit.
- Students should volunteer for the various roles rather than be assigned to them.
- Role-play sessions should be analysed by the group after the session and guidelines for the analysis be provided before the session.

Advantages	Disadvantages
1. The learner gets an opportunity to practice what he/she has learned	1. Not all students may be able to dramatize or play roles in different hypothetical settings.
2. The learner is able to express his/her feelings under the guise of make-believe.	2. Teachers may not be able to construct a real problem situation or different roles to deal with it.
3. This technique provides the learner with an opportunity to actively participate in the learning process and also to get immediate feedback.	

3.6 Critical – Incident Technique

In this method, the learner learns from a crucial incident which occurs in the course of study or work. Due to the alarm it causes he/she learns to prevent a future occurrence, e.g. a nurse who didn't observe a post-operative case sufficiently may cause her patient to bleed to death. Another example is a Health Inspector who p asses diseased m eat as safe for human consumption which causes the consumers to become infected.

Advantage	Disadvantage
Learning not easily forgotten!	Such teaching cannot be planned.

3.6.1 How to Decide which Method to Use?

There are a few guide posts to this:

1. Decide what you want to achieve

What do you want your students to be able to do at the end of the session?

Examples

- Do you want your students to be able to list the steps in taking a patient's blood pressure?
- Do you want the students to be able to take a blood pressure reading accurately?
- Do you want the students to be able to explain something clearly to a patient e.g. explain to a pregnant woman that her blood pressure is elevated and what this implies?

The skills involved in the three examples are all different.

Example 1 is a knowled ge problem therefore a lecture discussion would do.

Example 2 is a skill and demonstration through practice is necessary. We are interested in accuracy so students could practice taking each other's blood pressure.

Example 3 is a difficult problem. It involves the skills of explaining, thinking and making decisions and having the right attitude. The students must go through the experiences described in examples 1 and 2 first.

Suitable methods for teaching this may be a simulation and later a practical in the real situation. A practical clinic or ward attachment may be necessary here.

2. Consider the practicality of the method

How much time does it require? Where is the teaching to take place? How many students are involved? What level are the students?

3. Gather the resources and plan the lesson

Whatever method you choose, keep in mind that effective learning should always be fun.

3.6.2 How Attitudes Are Taught

An attitude is a tendency to behave or think in a certain way, e.g. respect for ideas that other p eople have. Certain attitudes are formed or changed during training. Attitudes are rather vagu e things; they are hard to define or explain. Despite these problems, try to teach students to acquire the right attitudes.

Methods for teaching attitudes

Providing information to shape attitudes: by lectures, films, stories etc.
Providing examples: The teacher acts as a model or advertisement.

Providing experience to shape attitudes:

- Seeing patients suffering with particular diseases
- Eating vegetables you have grown
- Looking after animals; doing, manual work.

Providing discussion to shape attitudes: Small-group discussion with 7-12 participants.

Role playing exercise: Students act the parts of different people or patients to reveal some of the feelings involved.

How skills are taught

There are three types of skills.

1. **Communicating skills:** Persuading, talking, encouraging

2. **Cognitive skills:** Thinking skills, making decisions, choosing appropriate alternatives.

3. **Psychomotor skills:** Using hands, doing things.

Methods for teaching skills

Describing a skill
Explain the reasons and stages in performing it.

Demonstrate a skill

Students see an expert perform the skill correctly with an explanation of what he/she is doing.

Practice

Students perform the skill through projects, simulations, job experience, fieldwork, workshops, laboratory case studies, ward rotation and apprenticeship.

How knowledge is taught

Knowledge includes the facts that a health worker must know. Sources of facts are the teacher, manuals, books, films, posters and models.

Methods for teaching knowledge

Lecture, seminar, symposium, conference, panel etc.

4.0 CONCLUSION

Having known that no single method is perfect and that teachers need to use various methods to convey messages to audience, the teachers must have the mastery of the teaching-learning methods so that they can be used at will and with ease.

5.0 SUMMARY

You have learnt various methods used in teaching-learning process in this unit, which of the methods have you used in the past? Which of the methods have you enjoyed in the course of your learning process?

6.0 TUTOR-MARKED ASSIGNMENT

Explain how decision for a particular method is made as a teacher.

7.0 REFERENCES/FURTHER READING

Esu, A. E. O. (1987). Educational Objectives and the School Curriculum: An analytical approach, *Nigerian Journal of Curriculum Studies* 5(2) 48-58.

Kelly, A. V. (1982). *The Curriculum Theory and Practice*, (2nd ed). London: Harper & Row Publishers.

Manson, E. J. and Bramble, W. J. (1989). *Understanding and Conducting Research.* New York: McGraw Hill Book Company.

Onwuka, U. (1981). *Curriculum Development for Africa*, Onitsha: Africana Fep. Publishers.

Saylor, J. G. and Alexander, W. M. (1974). *Planning Curriculum for Schools.* New York: Holt Rinehart and Winston, Inc.

Stenhouse, L. (1975). *An Introduction to Curriculum Research and Development.* London: Heinemann.

World Conference of Organisations of the Teaching Professions (1987). A Curriculum Developer Manual.

UNIT 5 TEACHING AND INSTRUCTIONAL MATERIALS

CONTENTS

1.0 INTRODUCTION

In the previous units, we looked at the teaching-learning methods. In this unit, you would be acquainted with a good number of instructional media through which the content could be disseminated for effective teaching-learning. There is element of truth in the statement that "without a teaching aid, the teaching may not be successful as a teaching aid is like a teacher, it is meant to facilitate learning" However, you should note that a teaching aid is not a miracle device, neither does it induce learning on its own. It has to be used properly.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- describe common types of teaching-learning aids
- prepare appropriate teaching and learning aids
- use common teaching and learning aids
- determine the usefulness of the various aids.

3.0 MAIN CONTENT

3.1 Types of Instructional Materials

Communication and consequently teaching is more effective when more than one sense is used. The teacher who relies only on the spoken word to deliver the message is less effective than one who uses several senses (a multisensory approach). One sure means by which the teacher

attempts making the contents anc communication understandable to the learner is the use of instructiona materials. Instructional materials are go-in-between channel through which information is disseminated from the teacher to the learner. They are classified in different manners. The y come in a form of audio, visual, audiovisual, projected, non-projected, hardware, software, specimen, realia/real objects, etc. Attempts shall be made to explain some of them in details. A multisensory approach improves reten tion (the ability to rememb er), which is vital in education. The commonest instructional materials are audio-visual ones where the teacher combines the senses of seeing and hearing. These can be classified into projected and non-projected aids.

3.1.1 Projected Aids

Projected aids include the overhead transparency (projector), kaleidoscopes, films, video cassettes and slides. They are powerful aids if you can obtain appropriate ones, but they are expensive and difficult to maintain. The overhead projector is relatively cheap and easy to maintain and is easily available. It will be described here in detail to enhance its use in training institutions.

The overhead projector

The overhead projector (OHP) projects large transparencies from a horizontal table via a prism or mirror and lens. A bright image appears on a screen behind the teacher.

Setting up your projector screen

The setting up of the screen depends on:

- The type of room
- The size of the audience

There are two possibilities of projection:

- Project behind
- Project slightly to the side (better viewing)

When lecturing, stand to right or left of the projector.

How to prepare transparencies

- When preparing transparencies do not write too close to the edge – you might loose half the image. Leave at least an inch of margin all round.

- For more complex drawings, prepare a pencil sketch then lay the transparency over the sketch and cop y onto the transparency. You can also copy a diagram from a book.

- Lettering should not be too small – about 4mm (one-eighth of an inch).

- A transparency should convey one theme. Put as much as necessary but as little as possible on a transparency. Ensure clarity and impact.

- Leave room for future alterations.

- Jot down your lecture notes on the frame of the OHP.

- Keep content down to 10 lines with 10 words on a line.

- When masking, use thin paper – the lecturer will see the whole transparency but the audience will see only the information which has been revealed.

- Overlays: do not use more than six build-ups – brightness will be impaired.

- Store your transparencies with care. Avoid moisture and dirt.

Advantages of using OHP

- The teacher faces the classroom and can point out features appearing on the screen by pointing to the material.

- Darkening of the room is not necessary.

- A wide variety of materials can be projected.

- Transparencies can be used as an illuminated blackboard during the class period or transparencies can be prepared beforehand.

- A number of transparencies can be put on top of each other showing stages of development, e.g. of an idea or structure.
- Tracing of diagrams and drawings is easy.

- Transparencies can be made in many colours, both permanent and non-permanent depending on the pens and ink used.

- The overhead projector has endless possibilities in the hands of a resourceful teacher and has applications at all levels of education.

Disadvantages of using the OHP

- The teacher must not stand in front of the image.

- Acetate sheets are difficult to obtain, but spoiled and cleaned X-ray film is a useful alternative.

Technique: A low-quality X-ray film still wet, is kept in water for one or two weeks. The emulsion layer can then be stripped off. (When the film has dried it will take a much longer time for the emulsion layer to come off). The result is a transparent, slightly bluish sheet which can be used in the same way as transparent acetate sheets.

- Special felt pens are used for writing on the transparent sheets. If they are difficult to obtain, the glass pencils used in laboratories are a substitute. Erase with water (or with spirit for semi-permanent ink).

Care and maintenance

- After finishing a demonstration do not remove the wire plug from the socket but switch off the lamp and keep the fan running until the bulb has cooled down (there is a thermostat fitted in most types of OHP).

- Keep lenses and mirrors free of dirt.

- Keep a spare bulb in stock.

- Store semi-permanent transparencies together with master copies of handouts in a file with the unit block or subject concerned, so it can be found easily when needed and used again the following year.

3.1.2 Non-Projected Aids

These include the chalkboard, pictures/cartoons, flipcharts, posters, "the real thing", handouts and flannel boards.

3.1.2.1 The Chalkboard

The chalkboard is the most convenient and most used teaching aid. However, it is often badly used. As with all teaching aids, it requires planning in order to achieve effective learning. In planning how to use the board, teachers should ask themselves the following questions:

- Which parts of the lecture are important enough to be written on the board?
- Which aspects of the lecture are likely to be unclear?
- Which diagrams and/or drawings can be used to explain difficult points?
- What are the main points or steps in the lecture?
- Will the use of the chalkboard save lecture time? Do you need to use the chalkboard before the students assemble or is it possible to use a less time-consuming aid, e.g. slides or the OHP?

Some common faults in using the chalkboard

The chalkboard is used as an exercise book. Every word the teacher says is written down. This is time-consuming and does not discriminate between essentials and examples.

The chalkboard is used as scrap paper: The teacher's writing is too small, untidy or otherwise illegible. The board is filled with letters, symbols and figures all fighting for attention.

A lecture is delivered to the chalkboard instead of to the students: A teacher wo rking at the board should face it at an angle so that he/she can also look at the class frequently. The teacher should not cover the work on the board so that all students can see what he/she is writing down.

Some aids to chalkboard work

Templates: Shapes cut out of card or plywood help to outline figures which are often needed, e.g. a triangle in mathematics.

Bounce pattern: A sheet of thick rough paper in which a certain outline e.g. a map of a country with its region, is punched out along the outline. The paper is held against the chalkboard and a chalky duster flicked along the line of perforation. When the paper is taken away, lines of dots appear which can be joined by the teacher to produce the wanted drawing.

Semi-permanent lines: Such lines can be produced by using soft chalk soaked in sugar solution. They can be wiped off with a damp cloth.

3.1.2.2 Pictures

Slides, photographs, picture-drawings, line-drawings, cartoons etc., are good teaching aids. Good and appropriate pictures are difficult to obtain or prepare.

3.1.2.3 Flipcharts/Cards

Flip charts as an instructional medium is so called/named because of its potential feature of accommodating more than a chart. This is good to illustrate processes in a "flowing" form. These are cheap and easy aids to prepare. They can be made from butcher paper, old calendars, paper boxes, manila paper, etc. The diagrams can be drawn by somebody else or traced on. The pictures should be labelled in legible handwriting.

When labelling, remember to:

- Use thick felt pens.
- Use different colours for emphasis.
- Write in upper and lower (small) cases letters not capitals.
- Do not write too much.

When making a presentation using flipcharts, do not read the chart as you talk. The secret is to make some notes at the back of the flipchart to guide your discussion. Always face the audience.

3.1.2.4 Posters

Posters take longer time to prepare than flipcharts. They may consist of words only, pictures only, or a mixture of both. Unlike flipcharts, posters are usually single-leafed. Posters need a lot of planning and testing before use. They can be prepared for two types of viewers:

- For a mixed (heterogeneous) audience e.g. on a street for the general public.
- For a captive audience e.g. in a class.

When a poster is being prepared for a heterogeneous audience, it should deliver the message at a glance. When preparing a poster, remember the following:

- Make it simple
- Use simple language – avoid difficult words or slang
- Put as little as possible on the poster.

3.1.2.5 The Real Thing (Realia)

The best teaching aid is "the real thing". For instance, it is much better to teach mothers how to wash a baby by using a real baby rather than a doll. A live baby cries and kicks, a doll does not. These characteristics have to be taken into account in teaching mothers how to wash a baby.So try as much as possible to use "the real thing" in your lessons. Your first thought should be: is it possible for me to demonstrate the real thing to my class in this lesson? Only when this is not possible should you th ink of other teaching aids, that are im itations to the real thing. The closer the imitation to the real thing, the better the teaching aid. This is an important consideration in helping the learner to transfer the impression he gets from the lesson to the real thing. Teaching aids that are seen in the places where they belong are easier to understand and remember. A field trip is the general term for taking a class to the "real thing" in its context or normal surroundings.

3.1.2.6 The Flannel Board

This is the device of choice for teaching in rural areas. All rural-health educators should know how to use it. The operation is based on the fact that materials with rough surfaces tend to adhere to each other. If flannel is not available, alternative materials can be found. The board is put in front of the class, sloping slightly backwards. Cards with a rough backing (e.g. sand paper) can now be placed on the board in any position. The cards can be moved or taken down at wills. Make cards from large print or written words, e.g. newspaper cuttings, photographs or dissected posters.

Advantages

- It tells a story in which you can see things happen
- It has strong colours that please the eye
- The pictures are large enough to be seen from afar

- It looks like things that people are familiar with
- It arouses interest and questions.

Disadvantages

- Barazas are usually too big for flannel graph pictures to be seen from the back.
- When they are used outside, wind may blow the flannel graphs away.
- The apparently miraculous way in which the picture sticks to the board is a distracting novelty.

Remember: Even the best-designed teaching aid cannot replace practical work.

3.2 Storage of Instructional Materials

Available teaching instructional materials are often very under-utilized. Often they are stored in dark cupboards, remote stores or in a locked office. Because of frequent staff changes, everyone forgets or just does not know what is available. Each school should have an inventory of its instructional materials, and every movement, addition or change should be recorded accurately. Any new teacher to the school should be shown the master list of aids and should be encouraged to use them.

Storage of specific aids

- Maps and charts are stored rolled up, but to avoid long searches the titles should be written on the back.
- Slides are best kept in hanging files with a list of contents on the filing cabinet.
- Overhead transparencies and master copies of handouts are put in a master file together with other materials on that special unit or block.

The master copies are given numbers corresponding to the number of the stencils which are stored in or near the stencil room, again filed according to their numbers.

- Models, samples and specimens may be used for a permanent exhibit in the library/media resources centre..

3.3 How to Use Instructional Materials

Good use of teaching aids involves:

- Selecting
- Previewing
- Planning
- Presenting
- Evaluating

Selecting

The teacher should ask the following questions:

- Do I need an aid of any kind?
- Will an aid help me to achieve my objective or make the lesson more effective?

If the answer is yes, what kind of aid is best suited to my purpose?

Is the chosen aid available, does it have to be borrowed or constructed? What are the alternatives?

P**reviewing**

All aids have to be previewed before use. Too often the content of the material chosen is as much a surprise to the teacher as it is to the student! If you look at the aids beforehand, unpleasant surprises are avoided, and explanation or comment can be planned at the right time.

Planning

An aid may be used as a means of:

- Introducing a subject, stimulating interest, arousing curiosity.
- Prescribing the main body of the lesson, i.e. as the chief vehicle for transferring information.

- For recapitulation, to assist in consolidation of knowledge. Having determined the roe of the teaching aid, the students' minds must be prepared to obtain the maximum benefit from the aid. Tell them what to look for and explain and comment where necessary.

Pesenting

Make sure the performance is as good as possible. Check mechanical equipment, obtain consent from involved persons/patients/community. Display a little bit of showmanship.

Evaluating

After presentation, answer the following questions:

- Was the presentation successful?
- Did the aid achieve its purpose?
- Was the objective reached?

Find out the answers to these questions by follow-up activity such as:

- Discussion
- Asking and answering questions
- Questionnaires and assignments
- Weekly tests

3.4 Evaluating an Aid

When you are considering the use of an aid or have produced one, it is worth asking whether it meets the following criteria:

- Will the aid help to achieve the objectives?
- Does the aid focus on one main idea?
- Is the aid depicting a real situation?
- Does the aid stimulate imagination?

Having considered all these, you can then go ahead and use the aid. In short, the objective of the lesson should dictate the aid to be used.

4.0 CONCLUSION

It is expected that as you know various types of teaching-learning methods, appropriate use of teaching aids will assist you to deliver your information effectively to the understanding of your learners.

5.0 SUMMARY

In this un it, you h ave been exposed to various teaching and learning aids commonly used in helping students learn. The unit also covers types, uses and limitations of the various aids. We do hope that you have benefited immensely.

6.0 TUTOR-MARKED ASSIGNMENT

1. What do you understand by the term instructional materials?
2. List and provide a comprehensive write up on advantages and limitations of any 5 instructional media.

7.0 REFERENCES/FURTHER READING

Esu, A. E. O. (1987). Educational Objectives and the School Curriculum: An analytical approach, *Nigerian Journal of Curriculum Studies* 5(2) 48-58.

Kelly, A. V. (1982). *The Curriculum Theory and Practice*, (2nd ed.). London: Harper & Row Publishers.

Manson, E. J. and Bramble, W. J. (1989). *Understanding and Conducting Research.* New York: McGraw Hill Book Company.

Onwuka, U. (1981). *Curriculum Development for Africa*, Onitsha: Africana Fep. Publishers.

Saylor, J. G. and Alexander, W. M. (1974). *Planning Curriculum for Schools.* New York: Holt Rinehart and Winston, Inc.

Stenhouse, L. (1975). *An Introduction to Curriculum Research and Development.* London: Heinemann.

World Conference of Organisations of the Teaching Professions (1987). A Curriculum Developer Manual.

MODULE 3

Unit 1 Assessment of Learning and Teaching
Unit 2 Application of Teaching and Managerial Skills

UNIT 1 ASSESSMENT OF LEARNING AND TEACHING

CONTENTS

1.0 INTRODUCTION

Evaluating learning is an integral part of the instructional process. It is one of the most important tasks of a teacher. Its main purpose is to determine how much the learners have gained from a teaching situation and how well they are able to perform learned tasks or professional competencies. This unit describes the assessment process. It gives an overview of the assessment of learning methods of assessment and different types of assessment tools relevant to the assessment of knowledge, skills and attitudes.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- differentiate between evaluation, assessment and examination
- describe the purpose of evaluating learners
- explain the various assessment methods of knowledge, skills and attitudes
- develop appropriate assessment tools.

3.0 MAIN CONTENT

3.1 Introduction

Evaluation, Assessment and Examination

The terms evaluation, assessment and examination have been used interchangeably to mean the same thing. However, when examined closely, the terms do not always carry the same meaning. Evaluation is an encompassing term which includes the functions of examining and assessing. It also includes the aspect of placing a value and making decisions on the data obtained from the examinations. So, in simple terms, evaluation can be defined as "placing a value on a learner's performance in order to make decisions about a student, a subject or a course". Assessment, on the other hand, is the "method or process of finding out how much a student has learned". It is the process of determining whether the learners are achieving or have achieved the objectives of a course. This is normally achieved through examinations. Examinations, then, are the "tools or formal mechanisms which are used to assess the learning of students".

3.2 Purpose of Evaluating Learners

There are several reasons why students are evaluated. The main ones are:

1. To judge the level of learners' achievement
2. To predict learners' future performance
3. To monitor learners' progress for the purpose of providing feedback
4. To determine teaching effectiveness
5. To license practice of a profession
6. To identify weak and strong areas of a course
7. To grade and rank students for awards.

3.3 Types of Evaluation

We can group the reasons for evaluating learners into two classes: first, those reasons which demand a continuous assessment (formative

evaluation), and, second, those others that assist in decision-making at the end of the course (summative evaluation).

Formative evaluation

Also called progressive evaluation, the primary purpose of formative evaluation is to provide feedback to the learner and/or teacher about the learner's strengths and weaknesses. Formative evaluation follows small units of learning. The most significant advantage of this kind of evaluation is that it diagnoses learners' problems early in the instructional process and allows corrective measures to be taken. It carries on throughout the course of study.

Summative evaluation

Summative evaluation is carried out at the end of the term, course or programme. It is also called "terminal evaluation". It is used mainly for certification, licensing or for selection of learners for a further educational programme.

Note: A good evaluation should include both summative and formative assessment as each has a special role. While formative evaluation gives diagnostic feedback to both teacher and learner over small units of learning, summative evaluation can reveal the student's ability to integrate and apply learning.

3.4 What to Evaluate

Learners, especially potential health workers, should be assessed on what they know (knowledge), what they can do (skills), and what they feel (attitudes) about various issues related to their job.

3.4.1 Assessing Knowledge

Most teachers assess students almost exclusively on their acquisition of knowledge. This assessment usually takes the form of pen and paper tests, such as:

1. Essay tests
2. Short-answer tests
3. Multiple-choice questions (MCQs)

- True/false questions
- Matching questions
- Completion of blanks

The most common paper tests, however, are essays and MCQs.

3.4.1.1 Essays

Essays can be useful methods of student assessment, especially if they are made valid, reliable and objective.

How to set essay questions

- Decide whether there is no alternative method of assessment.
- Make the question very specific, describing exactly what students should do.
- Prepare a marking scheme.

When writing MCQs, the difficult thing is choosing the question (the stem) and choosing the distractors.

How to choose good questions

Try to make simple, straightforward questions that relate to the teaching you will do. Think of the aspects of the topic that you want to emphasize. Make your questions about those aspects.

Examples

A teacher on a refresher course was teaching about diarrhoea. She wanted to emphasize the importance of finding out the causes of diarrhoea. She made these two questions:

Question

When you see a child with diarrhea, what is the first thing to find out:
Answer:

a. Whether the child is breast- or bottle-fed

b. Whether the child is at school or not

c. Whether the child is walking or not

d. What the child's name is?

Question

A mother comes to the clinic complaining that her whole family has diarrhoea. What would you try to find out first?

Answers

a. Her husband's occupation

b. How many members there are in the family?

c. The family's source of water

d. How many members of the family have been to school?

All the distractors are important. But the teacher wanted to see if her students could pick out the importance of bottle-feeding and the source of water as the cause of diarrhoea.

Another teacher was teaching about control of sexually transmitted diseases. He made these two MCQs:

Question

STDs (Sexually transmitted diseases) can be controlled by:

Answers

a. Proper hygiene and early treatment of infected persons

b. Taking capsules before sexual intercourse

c. Taking capsules after sexual intercourse

d. Avoiding prostitutes.

Question

Gonorrhoea can cause:

Answers

a. Infertility

b. Madness

c. Deformed legs

d. Loss of hair.

The first question was a good one because it was about the subject. The second question was not a good one for this subject. It does not relate to control of STDs at all. It would have been a good question if the teacher was talking about gonorrhoea itself and the complications of gonorrhoea.

It is good to make the multiple-choice question about an actual situation or an imaginary patient, rather than about a general point. For example, if you want to test how much students know about the treatment of gonorrhoea, which do you think is the better question?

Question

What is the treatment of gonorrhoea?

Answers

a. Arsenate

b. Penicillin

c. Chloroquine

d. Flagyl

Question

You see a man who has a discharge and you diagnose gonorrhoea. What would you give him?

Answers

a. Arsenate
b. Penicillin
c. Chloroquine
d. Flagyl

The second question is probably better because the students can relate it to a specific person (in this case, the patient in your question) rather than just a hypothetical situation. This kind of question also makes it easier to ask further questions such as:

Question

You see the patient again two weeks later and he still has a discharge. You should:

Answers

a. Give him a dose of penicillin

b. Give him a dose of sulfa

c. Do a bacterial culture on the discharge

d. Send him home and tell him not to worry about it.

Sometimes you can make this sort of question quite long:

Question

Josephine's Road-to-Health card shows that she was born in December. She has had only one immunization, the first DPT, given in February. It is now May. What immunizations would you give her at this visit?

Answers

a. BCG only

b. BCG and DPT

c. BCG, DPT and polio

d. BCG, DPT, polio and measles.

Or even like this:

Question

An outbreak of diarrhoea and vomiting has just been reported to the District Health Education Officer and he immediately comes to you to ask for transport to the area of the outbreak. You, as transport officer in the hospital, start writing (signing) the work ticket for the vehicle. But as

you are writing, the District Medical Officer asks for the same vehicle to take him to meet some senior officers from the capital at the airstrip. You would:

Answers

a. Give the Medical Officer the vehicle first and ask the District Health Education Officer to make his safari tomorrow.

b. Give the District Health Education Officer the vehicle and look for an alternative vehicle for the doctor to use in meeting the senior officers.

c. Quickly inform all Heads of Departments about the senior officers from the capital and let them meet the senior officers at the airstrip.

d. Keep petrol and drivers ready in case the senior officers want to go round the district.

Such questions can be very useful in provoking the students to think. But remember: If you make a long question, it will take more time for the students to read it and answer it.

How to choose good distractors

Writing good answers is as important as writing good questions. There are three things to remember about choosing distractors:

1. Do not make incorrect answers ridiculous

2. Try to choose distractors from among the sort of mistakes that students commonly make.

3. Do not make the correct answer obvious.

An example of ridiculous wrong answers and an obvious right answer might be like this:

Question

To improve the health of the children in your area which would be the most useful in your dispensary?

Answers

a. Ten more staff

b. An ambulance

c. Upgrading to a hospital

d. A fridge and vaccines.

Neither (a), (b) nor (c) is at all possible for a dispensary, so the only possible answer is (d).

Sometimes the correct answer is obvious for other reasons, for example:

Question

The best food for a young child is:

Answers

a. Tinned milk

b. Goat's milk

c. Cow's milk

d. Breast milk with extra solid food added after the age of four months.

Here, the correct answer is much longer than the distractors, so it stands out from the distractors and the student may choose it for that reason only.

Using common mistakes for distractors can be very effective. Here is a good example:

Question

A child with fever has been admitted to your health centre. He does not seem to have any infection. You have given him chloroquine. What else should you do?

Answers

a. Check for dehydration
b. Give antibiotics

c. Refer him to hospital

d. Give aspirin.

Answers (b), (c) and (d) are all common mistakes made at health centres.

Testing different things

You can use MCQs to test different things. Although MCQs only really test knowledge, you can test different sorts of knowledge with them.

For example, this question tests simply what students know about vaccines:

Question

Your kerosene finished last week and your refrigerator has not been working. If you get a new supply of kerosene next month and the refrigerator starts working again, your vaccines:

Answers

a. Will all cause bad reactions

b. Will all be effective

c. Will all be useless

d. Will work again after they have been cold for 24 hours.

The question presented earlier, about the vehicle that is needed by the Health Education Officer and the Medical Officer, tests decision-making. There is no absolutely correct answer to that question. It is whatever the student thinks is the best thing to do.

Using MCQs for pre- and post-tests

As we have said, you must make sure that your MCQs are related to your teaching. You can then use them as pre- and post-tests to see how effective your teaching is and whether the students are learning. For

example, if you want to teach about treatment of measles, you might give a question like this:

Question

Which drug would you give a child with uncomplicated measles?

Answers

a. An antibiotic

b. Chloroquine

c. Stemetil

d. None

Perhaps during the pre-test, most of the students chose answer (a), in your teachin g, then, you emphasize that uncomplicated measles does not need any drugs. If you give the same question in a post-test and everyone chooses (d) this time, you know your teaching has been successful and you have got the point across. But if only a few choose (d), and many still cho ose (a) or (b) or (c), you know your lesson has not been very successful. You may have to repeat it.

Preparing a marking scheme

There are two ways you could prepare the scheme to make your marking more reliable:

1. Analytic scoring

2. Impression scoring.

In analytic scoring, the examiner sets out a number of crucial points which must appear in the answer.

The student's answer is then compared to this model answer. Points are then awarded for integration, co-ordination and organization.

In impression marking, the marker simply reads the essay for a general impression of its adequacy. The marker then transforms the impression into a numerical mark and moves on to the next answer. The papers may be sorted out by quality into piles of similar standard before marking. A useful system could be sorting them into piles of low (25%), middle (50%) and high (25%) score. This is a norm-referenced procedure. It

assumes that the ultimate scores will follow a normal distribution. The three major groups could even be sub-divided into lowest (5%), lower (25%), middle (40%), high (25%), highest (5%).

General rules in marking essay answers

1. Grade answers question by question rather than student by student, i.e. the marker should read one question for all students' papers before moving on to the next question/paper.

2. Conceal from the marker the name of the student whose paper is being marked.

3. Arrange for independent marking of papers, or at least a sample of them if the class is too large.

4. Discuss the answers with students to ensure learning. Provide feedback!

3.4.1.2 Multiple Choice Questions (MCQS)

What are multiple choice questions?

Multiple choice questions are questions where four or five answers are given and the student has to choose the correct or best answer from them. MCQs have three parts:

1. The question itself, or the stem

2. The correct answer

3. Distractors – these are incorrect answers

Examples

Question (stem)

A mother comes to clinic with a malnourished child. What is the most important thing to find out from her?

Answers

a. The sex of the child

b. Where the child was born

c. How many children the mother has altogether

d. Whether the child goes to school.

Here, answer (c) is the correct, or best, answer. Answers (a), (b) and (d) are the distractors. It is usually easiest to have one correct answer and three distractors – hence four answers in all. But some people like to have five in all, others only three. It does not really matter how man y you choose.

The question, or stem, need not always be a full question. It could be presented as a statement like this:

Question

A mother comes to clinic with a malnourished child. A very important thing to find out is:

Answers

a. The sex of the child

b. Where the child was born

c. How many children the mother has altogether

d. Whether the child goes to school

Another example of this sort of question is:

Questions

Instruments should be sterilized in containers with:

a. The lid not fitting

b. The lid fitting well

c. No lid at all

d. Just a plastic plate.

4.0 CONCLUSION

This unit provided an in-depth study into evaluation, assessment and examination of learners. The unit also presented an overview of types of

evaluation and how to evaluate. It is hoped that you should be able to construct evaluation tools by now.

5.0 SUMMARY

You have gone through the meanings of evaluation, assessment and examination in this unit the evaluation tools and it is expected that you can construct evaluation tools for the learners.

6.0 TUTOR-MARKED ASSIGNMENT

1. Account for various methods of evaluating learners.
2. Construct an evaluation tool in any of the courses you offered in the last semester.

7.0 REFERENCES/FURTHER READING

Esu, A. E. O. (1987). Educational Objectives and the School Curriculum: An analytical approach, *Nigerian Journal of Curriculum Studies* 5(2) 48-58.

Kelly, A. V. (1982). *The Curriculum Theory and Practice*, (2nd ed.). London: Harper & Row Publishers.

Manson, E. J. and Bramble, W. J. (1989). *Understanding and Conducting Research.* New York: McGraw Hill Book Company.

Onwuka, U. (1981). *Curriculum Development for Africa*, Onitsha: Africana Fep. Publishers.

Saylor, J. G. and Alexander, W. M. (1974). *Planning Curriculum for Schools.* New York: Holt, Rinehart and Winston, Inc.

Stenhouse, L. (1975). *An Introduction to Curriculum Research and Development.* London: Heinemann.

World Conference of Organisations of the Teaching Professions (1987). A Curriculum Developer Manual.

UNIT 2 APPLICATION OF TEACHING AND MANAGERIAL SKILLS

CONTENTS

1.0 INTRODUCTION

This unit will introduce you to the teaching situation as many teachers feel very anxious about their teaching when they are beginning to teach. This anxiety affects the performance of many teachers. In order to minimize the anxiety and help teachers get used to the teaching activity, this unit will introduce you to a number of steps/methods that will make your teaching effective, enjoyable and anxiety-free.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- refine old skills and develop new ones using micro-teaching and mini-teaching
- evaluate the teaching process
- use the feedback for necessary improvement.

3.0 MAIN CONTENT

3.1 Micro-Teaching

Micro-teaching is used in developing teaching skills in a simulated situation. In this situation, the teacher-trainee is developing specific teaching skills by teaching a small group of students.

Instead of the teacher-trainee being suddenly faced with a large number of students, the trainee is exposed to small numbers, sometimes as few as between 5 and 10. This situation is less threatening to the teacher.
Finally, development of effective teaching skills involves self-assessment and recognition of one's weaknesses and strengths. Micro-teaching thus offers an ideal situation for teachers to evaluate their own performance by reviewing a video playback with their peer s. Sometimes a group of peers is also the audience used to observe the micro-teaching and they act as both learners and evaluators of the teacher's performance.

3.1.1 The Basic Teaching Skills

In teaching, a variety of skills are employed but for the purposes of teacher training we try to isolate specific skills which can be developed and taught to the teacher.

The skills to be considered in this section are:

1. The skill of stimulus
2. The skill of questioning
3. The skill of responding
4. The skill of reinforcing
5. The skill of explaining.

The skill of variation

In teaching it is important to vary both the intensity of the stimulus as well as its focus. In a teaching situation this is achieved by:

Appropriate variation of movements. Teaching is not "putting on a show". Teachers should try to behave as normally as possible in front of the class; undue movement in class may distract students' attention, while a teacher who appears like a "statue" is boring.

Variation of sensory focus

Variation of sensory focus refers to shifting from one sensory medium to another. Application of multisensory media not only enhances learning but keeps the session lively.

Variation of speech pattern

The learning process is started off by providing a stimulus. The stimulus can be through any of the five senses. A stimulus which is constant, with no variation of intensity, is less appreciated than one which varies. A flat monotonous voice eventually sends learners to sleep. A high pitch, or a loud or low voice may be used to emphasize important points.

Use of purposeful gestures

Gestures are important components of speech. If used well, they can augment the explanation, but if wrongly used they can distort the spoken word. Gestures which are not purposeful and which distract learners are called "mannerisms". It is important for teachers to be aware of their own mannerisms.

Variation in media and materials

- Visual
- Audio
- Tactile

Use all the senses if possible/applicable.
Interaction variation

A teacher should change the focus of interaction from time to time to minimize teacher talk. He should combine:

- Teacher-group interaction
- Teacher-individual student interaction
- Student-student interaction

The skill of questioning

The skill of questioning is a very important one in teaching. It helps students learn by involving them in the activity as well as measuring their learning (otherwise called evaluation).

Specific skills in questioning are:

1. Distributing of questions to the students

2. Redirecting of questions to the students

3. Prompting techniques

4. Structuring to provide the context for the question

An important skill for teachers to acquire in questioning is to vary the level and type of questions. A wooden teacher is dull and uninteresting, an over-exuberant teacher is distracting.

The questions should not only be at the lowest level of simply recalling but should include:

Level 2 – Comprehension

Demanding that the learner expresses the idea with some evidence of understanding.

Level 3 – Application

Involving the respondent putting the idea into practice.

Level 4 – Analysis:

Separate complex ideas into their component parts

Level 5 – Synthesis

Requires putting the ideas together to form a response

Level 6 – Evaluation

Making judgments

Level 7 - And finally, some questions could be of the highest order making the learner express feelings, e.g. how would you feel if you were in this situation?

Questions might evoke no response from the learner. The teacher needs the skill to provide other key questions. This may serve to lead the learner to the correct response.

Specific skills required here include

- Probing
- Pausing

Probing

Probing means asking further questions to verify the reasons behind a particular response by a learner, to give reasons, etc. This technique is particularly useful if:

- A student has answered a question wrongly.

- A student has answered a question partially wrongly

- A student has answered the question correctly but the teacher wants to build on the student's answer.

Pausing

Pausing is a skill in its own right. After asking a question, the teacher waits for a few moments to let the students think. This process challenges every learner. It also allows time for more students to volunteer and for the teacher to select the respondent.

The skill of responding

A teacher's response might be verbal or non-verbal. "Non-verbal" refers to response by action or a show of feelings. This technique is extremely important for trainers. Verbal response refers to answering questions or reacting by speaking.

An effective response is a positive one that encourages the learner to go on participating in the learning activity. It is directed to:

1. The individual, or

2. The group.

The specific techniques that are effective are:

1. Enthusiasm shown by the teacher
2. Avoiding a negative expression
3. Use of gestures indicating agreement, for example nodding
4. Lastly, use of encouraging statements like "very good", "excellent", etc.

The skill of reinforcement

Learning can be enhanced by use of reinforcement. It is an important basic teaching skill involving techniques that modify or change behaviour. It:

1. rewards good behaviour.

2. increases students' attention.

3. is used to control or modify disruptive student behaviour.

4. gives continuous reinforcement of desired behaviour.

There are several kind of reinforcement:

1. Verbal reinforcement, e.g. comments of praise and encouragement used to praise the students.

2. Teacher's use of gestures, e.g. smiles, nodding.

3. Activity: use of a preferred activity to elicit the desired behaviour.

4. Physical contact

- A pat on the back
- Shaking hands.

5. Token reinforcement: use of symbolic reinforcement (reward)

- Written comments
- Others.

The skill of explaining

Explaining means "trying to give understanding to someone".
An explanation is designed to answer the question why? how? or what?
Components

1. Clarity and fluency
2. Emphasis

- voice emphasis
- repetition of main point
- paraphrasing
- verbal cueing, e.g. "Now carefully note".

3. Use concrete, simple examples
4. Use relevant examples
5. Relate them to the concept
6. Get more examples from students
7. Use students' bank of knowledge.

Set induction

This means the way of introducing a teaching/learning session.
The purpose is to:

1. Focus students' attention and create a frame of reference for a session.

2. Stimulate students' interest and involvement.

Closure

Directing attention to the completion of a teaching session.

1. "Now let's stop and go over what…"

2. Get students to summarize major points

3. Practise the skill learned.

Summary

We have seen that teaching involves a variety of skills. In any teaching situation, a teacher tries to use all these skills to enable the students to learn.

It is not possible to prescribe here which skill should be used in a given situation. A good teacher is one who can make the right judgment as to when to apply each skill.

3.1.2 Self-Assessment

We said that in micro-teaching, a self-assessment process is necessary for the teacher to improve. A teacher who is keen to improve and believes that he/she can improve, will improve. Several methods of feedback can be used.

i. The presenter can use a group of peers to do a critique his/her performance. In this case the trainee should be the one to start the critique.

ii. The teaching can be recorded on a cassette and played later. The trainee teacher will listen to the recording and assess the degree of interaction. How much he/she talked and how much he/she allowed students to talk. This can be done carefully and an interaction analysis can be mapped.

iii. The last method is the use of a video cassette where the performance is recorded and played back; the trainee leading the critique.

Several examples of assessment forms are given at the end of this unit.

3.1.3 Mini-Teaching Guidelines

You will teach a 10-15 minute lesson. It should be a complete lesson.

Make sure you choose a topic or concept that can be taught within this time limit. You will not be allowed to exceed the allotted time.

You will be teaching your own group; they will be your audience. You will also be recorded on video camera, so your movements may be a bit restricted.

You will choose any topic you like but bear in mind:

1. The time limit

2. The space limit

3. The skills you can practise

4. The feedback you want, i.e. you can use this session to experiment, or to clarify areas you feel uncertain about

5. Your target audience – not the camera!

Produce a lesson plan for this session – break it down carefully into minutes. Practise the lesson by yourself or with colleagues. Time your practice sessions.

Discuss your plans with your group and, if you need help, with facilitators.

Principles of mini-teaching feedback

Mini-teaching can be organized with peer-group feedback or with feedback from a video recording of the session. The major advantage of using a video is that the teacher is able to observe his/her performance and contribute to the feedback. This can be very effective.

With video and camera

Participants are able to:

1. Select and make a presentation of a defined task utilizing a given time.

2. Assess their own individual performances, to identify areas needing improvement and discuss in pairs how they could improve.

3. Assess other participants' performance and provide feedback, explaining areas of weakness and areas of strength in their teaching.

Without video

Activities

1. Individuals or pairs select topics in their groups

2. The facilitator then introduces a handout

3. Planning a learning situation

4. Participants also go through mini-teaching "guidelines"

Conducting a mini-teaching session

Objectives

- To plan and manage a class session

- To evaluate and give feedback to peers to help them improve their teaching skills.

Activities

1. Individual participants make lesson plans for what they will teach.

2. They share this in a group and get feedback.

3. They also produce a handout and visual aids and discuss each of them with the facilitator.

4. The checklist used for teacher evaluation is revised for use in this exercise by the whole group.

5. The teaching timetable is clarified and observers informed.

6. Every participant is observed by at least three peers and one facilitator during the teaching.

7. Discussion and feedback are conducted immediately after the teaching.

8. Start asking the presenter to evaluate him/herself.

9. Strong points are brought out and then weak areas mentioned.

3.1.4 Planning a Learning Situation Exercise

1. Who are your students?

2. What do they already know?

- Look at their curriculum; talk to their teachers; talk to them.
- Do they want to learn?
- Is there anything that might prevent them from learning?

3. What are you going to teach?

- Choose the topic.

4. How are you going to teach?

- Plan your teaching/learning situation.
- Plan the lessons
- Select the teaching methods
- Make arrangements

- Plan evaluation
- Collect resources

5. Teach

6. How well have the students learned? Or how well have you taught? (evaluation)

7. Say what you did and how well it worked. Report to the group on the experience.

Planning

Make sure you have answers to the following questions.

1. Regarding the students/participants:

- Who are the participants? Where do they come from?

- How many will they be?

- How long will the course be?

- Where will they stay?

- What, how and where will they eat?

- How long will they stay?

- How will they arrive?

- How will they go home?

- How will you entertain them?

- What do they need to bring along with them?

- Who will open and/or close the course?

- What preparations do you need to make for guest speakers?

2. Regarding teaching:

- What problems do the students have in their work?

- What do their supervisors want you to emphasize?

- Who else will you ask to teach?
- What will you teach?
- What aids do you need?
- What reading materials (books, handouts, etc.) do you need?
- What practicals are you going to arrange?
- How will you assess your teaching?
- How will you assess the students' activities?
- How many classrooms do you need?

Making the timetable

1. First get answers to these questions:

- How many teaching sessions will you have?
- How many topics do you want to cover?
- If you want to arrange a field trip, practical or discussion exercise, when is the best time to do it?
- How are you going to handle the group, as one group, or split into several groups?
- When is it convenient for your guest speakers to come?

2. Fill in the parts of your timetable that you cannot change, e.g. practicals, visits, guests, holidays.
3. Now try to fit in all your other topics. Decide how long you think each topic needs. Mix topics in such a way that you will keep the interest of the students. Remember that teaching with practicals or activities takes nearly twice as long as without them.
4. Try to have your timetable produced and ready to send to students before they arrive. At the very lease, give it to them as soon as they arrive. Send your timetable to your guests as well. Then if they can't come at the time arranged, they can suggest another time.
5. Always have one or two extra topics or sessions up your sleeve in case something goes wrong.

The day before the course starts

Check all these things:

1. Timetable ready?
2. First day's lesson plans ready?
3. Opening session prepared and confirmed?
4. Handouts ready?
5. Teaching aids ready?
6. Classroom ready?
7. All guests confirmed?
8. Pre-test ready?

Mid course

1. Are my students busy, interested and confident that they are learning?
2. Are they going to go back from this course and do better work?

If the answers to these questions are mostly "Yes", then you are running a good course.

If an answer is "no", ask yourself why? And try to change it.

Good luck.

4.0 CONCLUSION

You have gone through application of teaching and managerial skills as would-be teachers because one of the roles of a professional nurse is teaching, you are expected to teach your clients/patients and serve as a model to the numbers of the communities, your acquisition of knowledge in this unit will enhance your professional performance.

5.0 SUMMARY

In this unit, you have been provided sufficient information on the various teaching skills where you are expected to show proficiency. You are also equipped with the needed knowledge of how to acquire the

skills by getting involved in microteaching sessions. You are encouraged to take active part in the microteaching exercise.

6.0 TUTOR- MARKED ASSIGNMENT

1. Differentiate between micro-teaching and macro-teaching.
2. Account for the basic teaching skills a teacher is expected to exhibit.

7.0 REFERENCES/FURTHER READING

Cox, K. R. and Evvan, C. E. (1988). *The Medical Teacher*. London: Churchill Livingstone.

Child, D. (1988). *Psychology and the Teacher*. Cassell

Gagne, R. M. (1988). *Essentials of Learning for Instruction:* Prentice Hall.

Tschudin, V. (1982). *Counseling Skills for Nurses*. Bailliere Tindall.