NATIONAL OPEN UNIVERSITY OF NIGERIA

SCHOOL OF HEALTH SCIENCES

COURSE TITLE: CURRICULUMDEVELOPMENT IN NURSING AND LEARNING METHODS TEACHING-

COURSE GUIDE

NSC 405

Course Team: Dr Irinoye, O. O, RN, MSc Nursing, MSc Women, Development and Administration, PhD, Mr Golfa, T., RN, Dr Olaide, E., RN, PhD, Mrs Joseph-Shehu, E., RN, RM, RPHN, BNSc, MSc Nursing - Community Health Nursing, Mr Ejidokun, A., RN, RPN, MSc Nursing – Mental Health and Psychiatric Nursing – (Course Developers/Writers)

Mrs. Elizabeth Joseph-Shehu-(Course Coordinator) - NOUN

National Open University of Nigeria
Headquarters
University Village
Plot 91, Cadastral Zone
Nnamdi Azikiwe Expressway
Jabi, Abuja

Lagos Office
14/16 Ahmadu Bello Way
Victoria Island, Lagos

e-mail: centralinfo@nou.edu.ng
URL: www.nou.edu.ng

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COURSE OBJECTIVES

In order to achieve the aims of this course, there are overall objectives as well as specific objectives are 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.

DOING THE COURSE

The course will be delivered adopting the blended learning mode. You will have hard and soft copies of course materials, you will also have online interactive sessions, face-to-face sessions with instructors and preceptors in clinical sites and very limited campus face-to-face activities. The interactive online activities will be available to you on the course link on the Website of NOUN. There are activities and assignments online for every unit every week. It is important that you visit the course sites weekly and do all assignments to meet deadlines and to contribute to the topical issues that would be raised for everyone's contribution.

You will be expected to read every module along with all assigned readings to prepare you to have meaningful contributions to all sessions and to complete all activities. There will be opportunities for group work, case analysis and presentations. In this course, you will need to report some of your real life experiences working with people at the clinical level for health promotion activities. We would also learn how to do academic critiquing of each other's work, as individuals and groups, in professional manners demonstrating high level of respect and efforts to help each other grow. We would demand that you recognize

cultural diversity and respect cultural differences and treat your classmates, facilitators, preceptors with respect and dignity.

Course Requirements and Expectations of You

Attendance of 95% of all interactive sessions, submission of all assignments to meet deadlines; participation in all CMA, attendance of all clinical postings with evidence as provided in the log book, submission of reports from all clinical postings and attendance of the final course examination. You are also expected to:

- Be versatile in basic computer skills
- Participate in all field experiences and attend all teaching and practice sessions up to 95%
- Submit personal reports from field experiences on schedule
- Log in to the class online discussion board at least once a week and contribute to ongoing discussions.
- Contribute actively to group seminar presentations.

Equipment and Software Needed to Access Course

You will be expected to have the following tools:

- A tablet
- Internet access, preferably broadband rather than dial-up access
- MS Office software – Word PROCESSOR, PowerPoint, Spreadsheet
- Browser – Preferably Internet Explorer, Moxilla Firefox
- Adobe Acrobat Reader 8

Number and Places of Meeting (Online, Face-To-Face, Clinical Postings)

The details of these will be provided to you at the time of commencement of this course

Discussion Forum

There will be an online discussion forum and topics for discussion will be available for your contributions. It is mandatory that you participate in every discussion every week. You participation link you, your face, your ideas and views to that of every member of the class earns you some mark.

COURSE EVALUATION

There are two forms of evaluation of the progress you are making in this course. The first are the series of activities, assignments and end of unit, computer or tutor marked assignments, community posting experience and report that constitute the continuous assessment that all carry 40% of the total mark.

Take note - Field Experiences: There are two aspects to the assessment of the learners in this course NSC405: Curriculum Development and Teaching Methodology. 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.

The second is a written examination with multiple choice, short answers and essay questions that take 70% of the total mark that you will do on completion of the course.

Learner-Facilitator- evaluation of the course
This will be done through group review, written assessment of learning on the field; teacher-learner joint review of experiences, community members assessment of contribution/benefit from being part of the course and activities at the community level.

Grading Criteria
Grades will be based on the following Percentages

Tutor Marked Individual Assignments	10%	
Computer marked Assignment	10%	
Group assignment	5%	40%
Discussion Topic participation	5%	
Clinical/ Postings	10%	
End of Course examination	60%	

GRADING SCALE
A = 70-100
B = 60 - 69
C= 50 - 59
F = $\leq$ 49

COURSE REQUIREMENTS AND EXPECTATIONS

Pre-requisite Courses

NSC 202 Physical and Health Assessment
NSC 217 Epidemiology
NSC 218 Environmental Health

Concurrent Courses

NSC 327 Concepts and Strategies in Public/Community Health Nursing
NSC 302 Nutrition in Health and Disease
NSC 341 Health Statistics
NSC 320 Nursing Ethics and Jurisprudence
NSC 322 Medical Surgical Nursing II
NSC 326 Clinical Pharmacology and Chemotherapy

Course Mode – Blended (70% online class sessions; 30% practical of face-to-face working with preceptors)
Online: Students to register for course as indicated by the School of Science and Technology Website

Sites Of Practical - As would be specified at the time of registration for the course.

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 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 etc. 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 NSC 405: Curriculum Development and Teaching Methodology 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

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

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- explain application of teaching and managerial skills.

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

REFERENCES AND FURTHER READING

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

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

Churchill Livivan, C. E. (1988). The Medical Teacher. London: 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. & Bramble, W. J. (1989). Understanding and Conducting Research. New York: McGraw Hill Book Company.

Moronkola, O. A.; Akinsola M. K. & 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. & 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. & Bower, B. (1982). Helping Health Workers Learn. Hesperian Foundation.

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

MODULE 1 INTRODUCTION TO CURRICULUM THEORIES, MODELS, DESIGNS AND DEVELOPMENT

UNIT 1 INTRODUCTION TO EDUCATIONAL CURRICULUM DESIGNS

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. Curriculum development in nursing education, has for a long time, whether knowingly or unknowingly, proceeded from some philosophical perspective. Examining the philosophical foundations from which the nursing education institution wishes to proceed and making these explicit to the learners and the public might bring some coherence into the educational practice of nursing education institutions. Admittedly, for the most part, none of these ideological views will be used in isolation, but clarifying beliefs about the purpose of nursing education, the range of views about knowledge and the roles of the teachers and learners in the educative process might serve as both starting points and criteria for monitoring one's practice against the institution's espoused philosophy of nursing education. This unit will therefore expose you to the concept of curriculum, philosophical perspectives and related terms in curriculum studies.

2.0 OBJECTIVES

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

- define the concept of curriculum
- identify 3 philosophical perspective to curriculum
- explain the 3 approaches to curriculum
- discuss the nursing implication for the three philosophical perspective to curriculum and
- 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 courses 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.

Curriculum is the totality of formal and informal content that imparts the skills, attitudes, and values considered important in achieving specific educational goals.

3.2 Education philosophy and the curriculum

Central to making educational choices is a need to make explicit the philosophical beliefs underpinning what the educational institution sees as worthwhile for learners to experience. Such beliefs, whether made explicit or not, permeate the curricula experiences of all the learners in whatever context they find themselves.

Choices and decisions about curriculum are, hopefully, not random choices, but are based on thorough understanding of the educational

ideologies on which they are based. Three broad streams of educational philosophy underpin curricula choices and decisions; the conservative, the progressive and the radical views.

3.3 The Conservative View

The basic premise underpinning the conservative vision is that there are certain enduring worthwhile truths that should be taught and learned. According to this view, the purpose of education is to transmit worthwhile bodies of information to generations of learners so that that which is worthwhile is conserved.

Two schools of thought, perennialism and essentialism, fall within the conservative vision. Although the two schools of thought differ somewhat in how they view education, they agree on various fundamental aspects about education. For both the perennialists and the essentialists, education should concern itself with the cultivation of the intellect and not learner needs or interests. Furthermore, the two schools of thought agree that:

- Social change should be slow
- There is need to conserve and therefore to oppose reform
- Methodology should be teacher directed
- Emphasis should be placed on ensuring content centred curriculum.

Differences between the two schools of thought revolve around specifications of exactly what is to be taught and for what purpose. Perennialists' views of education have limited relevance to professional education because of their focus on the basics such as the reading, writing and arithmetic. Hence, this unit focuses mainly on a brief analysis of the essentialists' view of education.

The decision to focus mainly on essentialism is not to negate the tight grip that perennialists' views on education have had on nursing education in particular. It has been noted that Perennialists contend that there is an organized body of knowledge that learners need to know so that society might cohere around a common identity. That nursing education has always largely been, and continues to be; in many parts of the world a content-driven and transmission dominated educational system is by no means an accident. The biomedical approach, and its foundational sciences in the form of applied medical sciences, continue to dominate what is learned in nursing schools globally. Attempts to marginalize the concepts of disease and the pathophysiological processes affecting body organs and systems, through the introduction of integrated curricula in nursing education have not been very

successful. Regulatory nursing organizations implicitly or explicitly continue to demand clear indications of how much medical nursing, surgical nursing, pediatric nursing or obstetric and gynaecological nursing a prospective practising nurse has been exposed to during her/his period of education and training. The pervasive and enduring quality of perennialism in education, including professional education, cannot be underestimated. Admittedly, this is not the list of topics that one would find in the Great Books of western civilization, but it is a list of topics that one would find in western medical and/or nursing textbooks.

3.4 Essentialism

Rooted in idealism and realism, essentialists contend that both body and mind are important in education and as such 'core knowledge and skills are essential to a successful society, because those requisite abilities allow the individual to be an economically productive member of society. Four broad presuppositions that underpin essentialism are identified by Gaudelli (2002:199) as follows:

- Human nature tends to be bad
- Culture is outside the individual
- Consciousness should be focused on the present and the future
- The centre of value is found in the body and to a lesser degree in the mind.

The mind, however, has value in so far as it can be manipulated, cultivated and moulded to deal with the demands of an academically demanding education. In the words of Tanner and Tanner 'like the perennialist, the essentialist conceives of the mind as a vessel or container. Individual differences are marked off according to mental capacities, and education is simply a matter of filling and stretching each mind with the same curricular brew to the utmost of each mind's capacity' (1995:314).

3.5 The Purpose of Education

The purpose of education, from the essentialists' perspective, is the preservation, through transmission to generations of learners, of that which is essential to learn. The goal of education is to instill in learners the academic and moral knowledge which should constitute those 'essential things that a mature adult needs to know in order to be a productive member of society'. There is no doubt that education is the most contested sector in any country. Power and politics often dictate which path in education will hold sway at any point in time in any part of the world. Ernest (1991) refers to present-day essentialism as

technological pragmatism, in which absolutist epistemological views about education are based on the values of utilitarianism, expediency, wealth creation and technological development.

3.6 The curriculum

For the essentialists, knowledge is not to be found only in the Great Books of the western world, but is likely to be found in a variety of places. For them, knowledge is what is real and reality exists outside the individual and is subject to observation. Nevertheless, similar to the perennialists, the essentialists are of the view that only certain subjects are capable of cultivating the intellect; and therefore essential for the school to realize its purpose. These are 'the fundamental academic disciplines of English (grammar, literature and composition), mathematics, science, history and modern languages…. The performing arts, industrial arts, vocational studies, physical education and other areas of the curriculum are regarded as frills' (Tanner and Tanner, 1995:313). The essentialists do admit, however, that core knowledge and skills might change over time, depending on what is essential to know in order to function as a mature and productive adult both in the present and in the future. According to this view, a curriculum cannot be based on learners' needs and wants, but rather on what those in authority know is essential for the learners to know.

3.7 Nature and Role of the Learner

From the essentialist perspective, the learner is seen as a passive recipient of information transmitted by disciplinary experts. The learner's role is not to reason why, but to do as told. The interests and needs of the learner are seen as irrelevant to the educative process. What is important, though, is the conviction that learners differ greatly in their mental capabilities, and that it is not the function of the education system or the school to provide what the learner's genes have failed to provide. Hence the emphasis on ability grouping and testing to weed out those who can from those who just can't.

3.8 Nature and Role of the Teacher

The teacher knows best. The teacher is an expert with a wealth of information which he/she must transmit to the learner. It is therefore his/her duty to ensure that all that is essential to learn is taught. The teacher is charged with the responsibility to identify, select and organize that which is to be learned, and to decide how and when it is to be learned.

3.9 The Nature of the Teaching/Learning Process

For the essentialists, learning is no more than acquisition of knowledge and skills. According to this perspective this acquisition is best achieved through a teaching/learning process that places emphasis on lectures, drill, recitation and demonstration, provided and led by an expert in the discipline. Mastery has to be demonstrated through performance in various forms of assessment.

3.10 The progressive view

Progressivism is associated with the rise in dissatisfaction with traditional education practices which placed emphasis on content and totally disregarded the place of learners' needs and interest in education. Two streams of progressive education are evident in the educational philosophy literature. The European stream, often referred to as 'child centred' education based on Rousseau's fictitious teacher, and his equally fictitious pupil Emile, rebelled mainly against what was seen as over-subjugation of the pupil to conservative ideals propagated through traditional education. This stream is also sometimes called progressive romantic naturalism (Tanner and Tanner, 1995). The basic premise underpinning romantic naturalism (European progressivism) was that society interferes too much in the education of children. Children, if left alone, have the potential to grow up and become distinct and individual beings, untainted by societal influences and thinking. Each learner, therefore, is seen as a potential flower. In fact, Rousseau believed that the best that the teacher can do is do nothing (Tanner and Tanner, 1995). Closely related to romantic naturalism is existentialism. Advocates of existentialism proceed from the view that the world is an impersonal and indifferent place, and therefore, individuals must find their own meaning for existence because in their view 'existence precedes essence'. Meaning for one's existence therefore, can only be found through freedom of choice and introspection. Existentialism and/or romantic education, has not had any significant influence in nursing education. For this reason, these two schools of thought will not be dealt with any further than the cursory reference they deserve in a unit whose main focus is to provide a frame of reference for developing a nursing curriculum. Progressive education in the United States had some tenets in common with its European counterpart, but was also very distinct in its view about the place of education and therefore the school in the society. John Dewey, a prominent and prolific writer in educational philosophy, is often referred to as the father of progressive education in the USA. Dewey's philosophy of education is often called pragmatism or experimentalism. From this perspective, education should not be isolated from its social context, because education and experience are inextricably intertwined. Education therefore, must focus on the

learner's experiences and interests rather than on predetermined bodies of knowledge. This does not mean that content has no place in education, but rather that the learner's experience must be used to mediate knowledge. Distinctions aside, a number of commonalities exist among the broad streams of progressive thought in education. From the progressives' perspective knowledge is not static but dynamic, and learner's interests and needs are just as important as the content tobe learned. Experience is the best source of knowledge, rather than the textbook. Learners learn best by doing, experimenting and finding meaning in their own actions and in the consequences of decisions taken.

3.11 Experimentalism

The basic premise on which experimentalism is based is that reality is external and observable. Truth is only that which can be verified through experimental testing. The underlying philosophy on which this ideology is based is pragmatism. Pragmatists, such as Pierce, Dewey and Whitehead are of the view that what is real and true, is what works. Knowledge therefore, is judged on the basis of its consequences. Broad presuppositions underpinning experimentalism include the following:

- The meaning and value of ideas is only found in practical results
- Ideas must always be tested by experimentation
- Change is the only constant in human existence
- The ability to adjust to and/or deal with change is fundamental to constructive and democratic living (Tanner and Tanner, 1995).

3.12 The Purpose of Education

It is worth noting at this point, that from Dewey's perspective, the man closely associated with progressive education, pragmatism and experimentalism in the USA, 'education as such has no aims'. Instead people, parents, teachers and governments have aims. From the experimentalist perspective, the purpose of education is to help learners make connections between their life experiences and the world of schooling. The level of experience and the learner's interest should therefore be the starting point in any educational event. Education should help learners to become responsible and critical citizens in democratic societies. From the experimentalist perspective, and Dewey's in particular, education should be conceived as 'the development of the learner's capacities and interests in ways that empower her or him to assume the role of constructive participant in the life of the wider society'.

The Curriculum

From the experimentalist's perspective, life experience should form the basis of what is learned, because experience consists of 'the active interrelationship between the external world and the individual, between the thing and its sensation, perception, image and idea; between the objective and subjective aspects of human life'. Furthermore, because life has a scientific, aesthetic, and social aspect, the disciplines themselves are important only in so far as they are used to interpret the learner's experiences, rather than as lessons and/or information that has to be passively assimilated and stored for later use.

Nature and Role of the Learner

The learner is viewed as a psychological and social being. The psychological and social aspects of the learner are organically intertwined, and one does not take precedence over another. Through the process of development, the learner is seen as constantly seeking to find meaning in the world around him/her. He/she is directed by interest evoked by images in his/her life world. This natural tendency to 'inquire', or to be curious, allows the learner to direct his or her actions to the pursuit of those experiences, and the answers arrived at lead to a better understanding of his/her world.

Nature and Role of the Teacher

From the experimentalist's perspective, the teacher, by virtue of his or her experience and wisdom, has a responsibility to 'assist the learner in properly responding to these experiences'. In essence, the teacher is viewed, not merely as a transmitter of knowledge and ideas, but mainly as a mediator of knowledge. It is the teacher who has to help the learner negotiate meaning from his/her experiences in the light of what is already known (subject matter or disciplines). In recent years, this view has led to extensive discourse on mediation of knowledge.

The Nature of the Teaching/Learning Process

Similar to all progressives, the experimentalists prefer learning by doing (experimentation) rather than passively listening to lectures. The basic premise is that ideas result from action. Experiential learning and constructivism are the learning theories driving the teaching/learning process in experimentalist progressive classrooms. Grounded in the belief that knowledge is socially constructed in interaction with others, active learning approaches to teaching/learning are preferred. Hence, experimentalist classrooms are characterized by 'participation in meaningful projects, learning by doing, encountering problems and solving them, not only to facilitate acquisition and retention of knowledge but to foster the right character traits: usefulness, helpfulness, critical intelligence, individual initiative'.

The Radical View

Dissatisfied with the progressive educationists' pre-occupation with learners' needs and focus on education for participatory democracy, the advocates of radical education manifested themselves, initially, in the form of such celebrated educational philosophers and/or scholars as Harold Rugg, George Counts, Henry Giroux, Antonio Gramsci and Paulo Freire. Although not necessarily agreeing on every fundamental question about education, these philosophers were all of the view that education should do more than prepare learners for participatory democratic citizenship. Education should also prepare them for deliberative citizenship. The two prominent radical schools of thought in educational theory and/or philosophy that will be dealt with in this unit are reconstructionism and critical curriculum theory (critical pedagogy).

Reconstructionism

Reconstructionism is commonly seen as a branch of progressive education. It is discussed under the radical vision in this unit, because of its conception of education as a vehicle for effecting fundamental social change, especially in the realm of socio-political, economic and cultural organization. Central to reconstructionism is the conviction that societal change can be achieved through education. For reconstructionists, progressive education is too slow or too 'soft' ever to lead to change in the existing social order. Social and economic inequities cannot be solved through problem solving activities alone, but require constructive deliberations and even revolutionary action. Two distinct groups within the reconstructionist school of thought exist: *the ideological and the methodological*. Ideological reconstructionism places emphasis on theory development and advances reconstructionism as a philosophy of action in education. Methodological reconstructionists, such as Ralph Tyler, place emphasis on advancing the application of research-based strategies for effecting social change in education. Tyler (1949) identified four fundamental questions which must be answered in developing a curriculum and a plan of instruction, as follows:

- What educational purposes should the school seek to attain?
- What educational experiences can be provided that is likely to attain these purposes?
- How can these educational experiences be effectively organized?
- How can we determine whether these purposes are being attained?

In his view, information obtained from analysis of learner' needs, interests and characteristics, current life outside the school and views of subject experts should form the basis for making decisions about worthwhile educational purposes (Tyler, 1949). The basic principles of curriculum development, seen by others as the ultimate framework for a

technocratic curriculum, were in fact intended as a broad and flexible tool for making sense of what is a complex and often overwhelming task for teachers, that is, the process of developing a curriculum (Tanner and Tanner, 1995). Despite widespread criticism of Tyler's principles for designing a curriculum, there is no denying the impact his work has had on nursing education. Tyler provided a framework for practitioners of education to help them find direction in the practice of curriculum development. Rhetoric and ideology help in getting teachers to begin to question their practice; principles and guidelines help teachers transform rhetoric into theory of practice, without which, even the most brilliant ideas are likely to founder.

The Purpose of Education

From the reconstructionists' perspective, the purpose of education is to 'reconstruct society through students' acquisition of problem-solving skills applied to real life'. The basic premise here is that education, and therefore by implication the schools, should be used as instruments of social change. In the words of Rugg, 'we need of course to prepare our youth adequately to participate in life activities…. But we also need to prepare them to improve the situation in which they will find themselves as adults. We must equip them to be constructively critical of contemporary social, economic and political organization' (cited in Stern and Riley, 2002:114). As early as 1932, Counts had written that '[Education]…must…face squarely and courageously every social issue, come to grips with life in all of its stark reality, establish an organic relation with the community, develop a realistic and comprehensive theory of welfare, fashion a compelling and challenging vision of human destiny, and become less frightened than it is today at the bogies of imposition and indoctrination' (cited in Slattery, 1995:195).

The Curriculum

The social studies curriculum is preferred over other disciplines, such as natural sciences. Any discipline, however, is relevant in so far as it is used to interrogate the societal issues facing the learners and the society as a whole. The enduring societal issues, which no democracy or totalitarian society has ever succeeded in eliminating, such as equity of opportunity, access to education, political power and freedom from oppression are seen as central in a reconstructionist curriculum. A conscientizing and liberating curriculum is seen as most worthy of ensuring that education fulfils its purpose of changing the social order.

The Nature and Role of the Teacher

From the reconstructionist perspective, teachers have to be courageous and bold in performing their roles in reconstructing. For Counts, even indoctrination and imposition of the liberation ideology by teachers was a necessary strategy which teachers should not be afraid to use.

According to him, it is a fallacy that the school should be impartial, since 'schooling is complicit in forms of social control and indoctrination that result in social injustices' (cited in Slattery, 1995:195).

The Nature and Role of the Learner

Tanner and Tanner describe an ideal learner within the social reconstructionist perspective as a 'rebel committed to and involved in constructive social redirection and renewal' (1995:305). The role of the learner therefore, is to understand and rebel against those forces that operate to create and maintain social, economic and political inequities. Assimilation of revolutionary rhetoric is what learners are expected to do. For reconstructionists such as Counts and Brameld, this was to be achieved by whatever means, whether by indoctrination or reason (Tanner and Tanner, 1995).

The Nature of the Teaching/Learning Process

Social reconstructionist classrooms as conceived by Counts and other reconstructionist scholars of the time, would not have differed much from the essentialist classrooms. What was taught would have been different rather than what was expected of the learners. Indoctrination and imposition would not have left any room for questioning on the part of the learners. The expectation would be that the learners would accept that what was taught was true and that they themselves had a responsibility to reconstruct the society, through revolutionary actions and/or legislation. Cooperative and collaborative learning experiences with the community as a starting point are seen as the best approaches to helping learners develop a sense of self and community awareness. Creating connections between the classroom and the community has a potential to evoke a strong emotional response from the learner, an ideal condition for indoctrination.

Critical Curriculum Theory

Revived in the works of contemporary educational philosophers such as Henry Giroux, and spurred by the failure of early 20th century revolutionary education as advocated by Counts and his associates, interest in education as an instrument of social change has again begun to dominate educational and/or curriculum discourse. The point of departure for critical curriculum theorists is that 'schools (and by implication education—insertion mine) contribute to cultural reproduction of class relations and economic order that allows very little social mobility'. Within the variants of critical theory and its advocates, general assumptions on which this school of thought is based are apparent:

- all thought and power relations are inexorably linked
- these power relations form oppressive social arrangements
- facts and values are inseparable and are inscribed by ideology
- language is a key element in the formation of subjective identities, and thus critical literacy—the ability to negotiate passages through social systems and structures—is more important than functional literacy—the ability to decode and compute
- oppression is based in the reproduction of privileged knowledge codes and practices.

The Purpose of Education

The advocates of critical curriculum theory conceive the purpose of education as enabling 'students to become transformers of society…(enabling) students to be critical thinkers and critics of society who are able to make decisions and take actions which will better the society in which they live' (21st Century Schools, 2004:1). Giroux raises an important question in asking: 'whether schools should uncritically serve and reproduce the existing society or challenge the social order to develop and advance its democratic imperatives'. According to him, the goals of critical theory in education are to assess the emerging forms of capitalism and domination, and rethink and transform the meaning of human emancipation through a process of self-conscious critique. That education is a political act was explicit in Paulo Freire's (1972) work, through his now famous book, Pedagogy of the Oppressed. Freire reiterated the earlier reconstructionists' concerns with the domesticating and oppressive nature of what he called the 'banking concept' of education. This type of education forces learners to sit passively, listen and regurgitate what the teacher tells them without questioning.

The Curriculum

Critical curriculum content is chosen, not on the basis of what is intrinsically worthwhile knowledge, but rather on the basis of social worth. Curriculum which acknowledges the social responsibilities of education must present situations where problems are relevant to the problems of living together, and where observations and information are calculated to develop social insight and interest. For the proponents of critical curriculum theory, when selecting knowledge for inclusion in the curriculum, a number of fundamental questions need to be asked:

- What knowledge is important for students to learn, in whose point of view and based on what?
- What knowledge is excluded and why?

Any curriculum selected without answering these questions is seen as suspect. Mason (2000) argues that it is widely accepted that 'the truth status' of any knowledge determines its inclusion in or exclusion from a curriculum. What is in dispute, however, is who should be making decisions about the selection of material for inclusion in or exclusion from the curriculum. Some critical curriculum theorists differentiate between 'technical knowledge, which can be measured and quantified; practical knowledge, which is geared toward helping individuals understand social events that are ongoing and situational; and emancipatory knowledge, which attempts to reconcile and transcend the opposition between technical and practical knowledge'. Above all, from the critical curriculum theorists' point of view, because knowledge is only created within a dialogical community and preferably, one in which differences of opinion are not only allowed but encouraged, curriculum content must be selected on the basis of meaningfulness and relevance for the society.

The Nature and Role of the Teacher

Critical curriculum theorists believe that it is the role and responsibility of the teacher to help learners learn how to think, and provide them with the tools they need in order to transform the society. From this perspective, teachers are seen as critical mediators of knowledge. The teacher's role then requires that he/she make accessible to the learners the culture, worldview, social arrangements, and everyday practices of their society in all of their subtleties and nuances so that the learners can begin to question that which they had always taken for granted . Teachers are expected to create spaces for learners to negotiate and interpret meaning from, and implications of, information for a diverse society.

The Nature and Role of the Learner

The learner is conceived of as a critical and questioning individual. Self-conscious critique is an essential element of critical theory. The role of the learner therefore is constantly to question the world in which he/she lives with a view to transformative action.

The Teaching/Learning Process

Problem-posing and problem-solving educational experiences form the hallmark of a liberating education. Through posing questions based on contemporary problems of inequity, oppression, dominant cultures, and politics of race and class, teachers help learners reflect on these issues so that they can begin to understand the situation in which they live, so as to be able to effect change. In such classrooms textbooks only serve as tools for interpretation and analysis, rather than as authoritative sources of information. Debates, questioning (often Socratic in nature), and conversation are the teaching methodologies of choice.

Implications for Designing a Nursing Curriculum

It seems apparent that this unit has reached a point where you might ask, so what? An exploration of educational ideologies within the context of a book on curriculum development in nursing education is essential, for the simple reason that ‘our professional philosophy must cohere with our overall philosophy of education, in particular post-compulsory and tertiary education.

Educational change in nursing will always be nationally and politically driven. National governments and national regulatory bodies will always have a dominant say in the direction which nursing education should take.

Curriculum change, on the other hand, is the responsibility of the individual nursing education institution.

Three distinct and conflicting approaches to curriculum, content-driven, process-based and outcomes-based, continue to dominate literature on curriculum development. Table 1.1 depicts these three broad approaches to curriculum development and the value positions underpinning them. Each approach, as the name implies, proceeds from the point of view that content, process or outcome is the most worthwhile component in the curriculum.

A content-driven curriculum is rooted on the essentialist traditions of the conservative view of education. As noted earlier, from an essentialist perspective, an accumulated body of knowledge exists for most disciplines, which is essential for learners to know. The content-focused approach is the most widely used approach to designing a curriculum in nursing. The starting point for such a curriculum is usually a list of content areas that must be taught, often starting from the foundational biomedical sciences and social sciences, followed by body systems. Most nursing programs the world over are still content-based in nature, probably because most nurse educators were educated in this manner.
This type of curriculum is often described as the traditional curriculum model.

Table 1.1 Curriculum approaches and underlying value positions within the context of a nursing education program

	Content-Based Approach	Process-Based Approach	Outcomes-Based Approach
Underpinning Educational Philosophy	Essentialism and perennialism	Experimentalism	Reconstructionism (methodological)* Critical curriculum theory
Purpose of Nursing Education	Transmission of worthwhile bodies of accumulated nursing knowledge	Understanding of the world of nursing as inextricably intertwined with the world in which we live. Democratic participation in health policy issues	Reconstruction of the social order through critical understanding of social, political and economic determinants of health and disease Fostering commitment to collective reflection and action for change in the health status of the community Attainment of transformative work related outcomes (competencies) for both individual and societal survival
Curriculum	Fundamental academic disciplines (anatomy, physiology, social sciences). Core nursing subjects (medical and surgical nursing, mental health nursing, etc.)	Learners' experiences of the world of nursing, health and disease presented in the form of health problems and/or case studies	Social, economic, and political issues affecting the health of the people Focus on social reconstruction as a health promotion strategy
Nature and	Expert in the	A mediator of	A consciousness

Role of the Teacher	discipline who must identify, select, organize and transmit worthwhile knowledge and/or information to the learner	knowledge, through questioning and making accessible those experiences which are deemed to have a potential to facilitate the students' understanding of their professional role and functions as nurses	raiser and a critical mediator of knowledge through creating spaces for critical reflection and action
Nature and Role of the Learner	A passive and willing recipient of information	Psychological and social beings with a natural need to make connections between their experiences as students of nursing and the world in	Social and psychological beings at one with their community Their role is questioning and challenging the status, e.g. questioning and reflection on issues which they live such as why HIV/AIDS is a death knell for the poor, while the rich seem rarely to die from this disease; who has money for drugs and who does not and why, are all seen as legitimate issues which a nursing student should confront
The Teaching/ Learning Process	Teacher-directed with emphasis on knowledge acquisition	Experience-based learning with emphasis on methodologies that promote	Issue-based learning with emphasis on a preference for socio-cultural

	methodologies such as drill, lecture and demonstration. The driving learning theory is information processing theory	active learning, problem solving, cooperative and collaborative learning and experimentation	approaches to mediated action. Debates, Socratic questioning, simulations and conversations are the methodologies of choice

Even when the subjects are integrated and taught by multidisciplinary teams, the basic approach to the curriculum is still usually content-based. Lectures, interspersed with discussions, dominate the teaching/learning process. Learners are expected to assimilate what is taught and be able to recall it when required to do so in examinations.

The process-based curricula, on the other hand, focuses on helping learners learn how to learn. The basic premise is that there is too much knowledge available and that educational institutions, including nursing education institutions, have but a limited time to prepare students for a lifetime of professional work. The best that the teachers can do is help students learn how to locate information, analyse and interpret it, in order to solve life problems. Rooted in Dewey's progressive education ideology, especially his experimentalist and/or pragmatist approach, process-focused curricula emphasize development of life skills such as problem solving, critical thinking and democratic citizenship. In nursing education, problem-based learning has become a dominant approach in the process-focused curriculum. Experiential learning is the learning theory that informs this curriculum approach. The starting point is life experience, and authentic nursing situations, rather than topics for study or discussion. It is hoped that in the process of trying to understand and/or solve the problem through hypothesis generation and seeking alternative solutions, students will acquire skills to deal with both current and future life and professional situations.

Outcomes-based education (OBE) is very difficult to pin down in terms of its philosophical foundations. There are those who believe that it is based on the essentialist perspective because OBE like the content-driven curriculum proceeds from the premise that in worthwhile education some things are essential to be learned. Nevertheless, OBE within an essentialist perspective proceeds from defining the standards or outcomes which must be attained by every learner seeking a particular qualification. Alexander refers to the latter view of OBE as a technological pragmatic view of education rather than essentialist.
OBE is seen as a radical view of education, the main aim of OBE is social reconstruction. Properly implemented, OBE has the potential to

lead to critical learners, learners who view education as more than acquisition of knowledge and skills for solving life problems, who 'understand how social relationships are distorted and manipulated by relations of power and privilege. A nursing curriculum based on the radical view of education, specifically a critical curriculum perspective, would certainly look very different from that to which most nursing schools are accustomed. Coming from a tradition of behavioural objectives and content-driven curricula, most nursing education institutions have not even begun to interrogate their own curricula and practices. A complete paradigm shift toward an understanding and an appreciation of the inextricable nature of health and disease in the socio-cultural, economic and political context, as well as an awareness of the fact that individual, societal and institutional responses to health and disease are largely a function of the context in which nurses have to function are advocated. A radical philosophy of education would seek to transform not only the relationship between teachers and students, but also the relationship between nurses and clients, and ultimately the health care system.

Instead of using objectives and/or content outlines as a starting point, the following questions should be used:

- What knowledge is currently taught in nursing schools?
- Whose knowledge is it?
- What role does such knowledge serve in legitimating and/or unsettling universal interpretations of health and disease—that is germ theory versus social, political and economic determinants of heath?
- In the context of the current forces shaping individual and population health, what knowledge and/or skills are important for nurses to know?
- What purpose should a nursing curriculum serve—helping clients and students adjust to their domestication or help them understand and act with a view to a transformed healthcare policy and system?

From the critical curriculum perspective, therefore, professional education, including nursing education, cannot be divorced from the social, political and economic contexts that shape it. A comparison of the three approaches to curriculum with regard to their advantages and disadvantages appears in Table 1.2.

Table 1.2 Advantages and disadvantages of the three types of curriculum approaches

Curriculum approaches	Advantages or strengths	Disadvantages or weaknesses
Content-based approach	teacher has control over what is taught Content can be carefully chosen Much content can be covered in relatively little time It is easier than the other two types to organize	Few competencies might be mastered Independent learning is not fostered, since the curriculum is teacher-focused Teaching easily becomes irrelevant, since it takes much time and effort to change them Teaching easily becomes irrelevant, since there isno direct link with practice It may lead to over-teaching
Process-based approach	It teaches nursing in a way which is in harmony with the scientific approach of the discipline (problem solving in partnership) It is a motivating way of teaching and learning It is student-centred Since knowledge is attained in context, it is remembered more easily It encourages personal development of the student Students learn how to learn, which promotes life-long learning	Changing to this kind of curriculum demands much time and preparation of the school and the teachers In large schools the small group teaching demands many teachers
Outcomes based approach (technological pragmatism)	Allows for flexible trajectories of learning Ensures certain skills levels in graduates	It demands that both teachers and learners learn new ways of working

	Increases motivation since relevance is immediately obvious Bridges the gap between vocational and academic education The curriculum usually allows for different pathways to the outcomes, and this allows for more individualization and contextualization Learning outcomes are clear, and evaluation is potentially more valid and reliable	If the curriculum is not planned to be coherent, with different modules connected systematically, learning can be fragmented Might become over-specialized, with broadening aspects of education neglected
Outcomes based approach (social reconstructionism)	Provides a broader understanding of health and disease Development of capacity for questioning and challenging of the status quo for and with the clients of nursing Broad definition of competence to ensure that the education of nurses does not become overly technocratic and behavioristic Potential for preparing a politically aware and conscientized nursing workforce to lead health sector reform	Potential to be more rhetoric than action with nurses perpetually living in a utopia Potential for action without thought resulting in revolutionary action rather than transformative action The bureaucratic and rigid nature of the healthcare settings might prove to be impenetrable by emancipatory ideals leading to pessimism and nihilism on the part of the nurses The extent of inequity and associated health status of the community might be too overwhelming for nurses and lead to feelings of despair and sense of futility

		in the face of large-scale inequities and their debilitating consequences in the lives of communities

Related Terms in Curriculum Studies
For better understanding of this course, it is essential you 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 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 cyclical 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 is the totality of formal and informal content that imparts the skills, attitudes, and values considered important in achieving specific educational goals.

Three broad streams of educational philosophy underpin curricula choices and decisions; the conservative, the progressive and the radical views.
Educational change in nursing will always be nationally and politically driven. National governments and national regulatory bodies will always have a dominant say in the direction which nursing education should take.

Three distinct and conflicting approaches to curriculum, content-driven, process-based and outcomes-based, continue to dominate literature on curriculum development.

A content-driven curriculum is rooted on the essentialist traditions of the conservative view of education. The content-focused approach is the most widely used approach to designing a curriculum in nursing. The starting point for such a curriculum is usually a list of content areas that must be taught.

5.0 SUMMARY

In this unit you have learnt that;

The process-based curricula, on the other hand, focuses on helping learners learn how to learn. The basic premise is that there is too much knowledge available and those educational institutions, including nursing education institutions, have but a limited time to prepare students for a lifetime of professional work. The best that the teachers can do is help students learn how to locate information, analyse and interpret it, in order to solve life problems.

Outcomes-based education (OBE) is seen as a radical view of education, Properly implemented, OBE has the potential to lead to critical learners, learners who view education as more than acquisition of knowledge and skills for solving life problems, who 'understand how social relationships are distorted and manipulated by relations of power and privilege'.

6.0 TUTOR-MARKED ASSIGNMENT

Take a look at the curriculum for B.NSC programme and deliberate the philosophical standpoint of the curriculum.

SELF-ASSESSMENT EXERCISE

i. define the concept of curriculum
ii. identify three philosophical perspective to curriculum
iii. explain the three approaches to curriculum
iv. discuss the nursing implication for the three philosophical perspective to curriculum
v. 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 AND FURTHER READING

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

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

Churchill Livivan, C. E. (1988). The Medical Teacher. London: 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. & Bramble, W. J. (1989). Understanding and Conducting Research. New York: McGraw Hill Book Company.

Moronkola, O. A.; Akinsola M. K. & 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. & 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. & Bower, B. (1982). Helping Health Workers Learn. Hesperian Foundation.

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

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 study along.

2.0 OBJECTIVES

At the end of this unit, you will 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 need 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 facilitates social relationships and the educator must facilitate democratic 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.

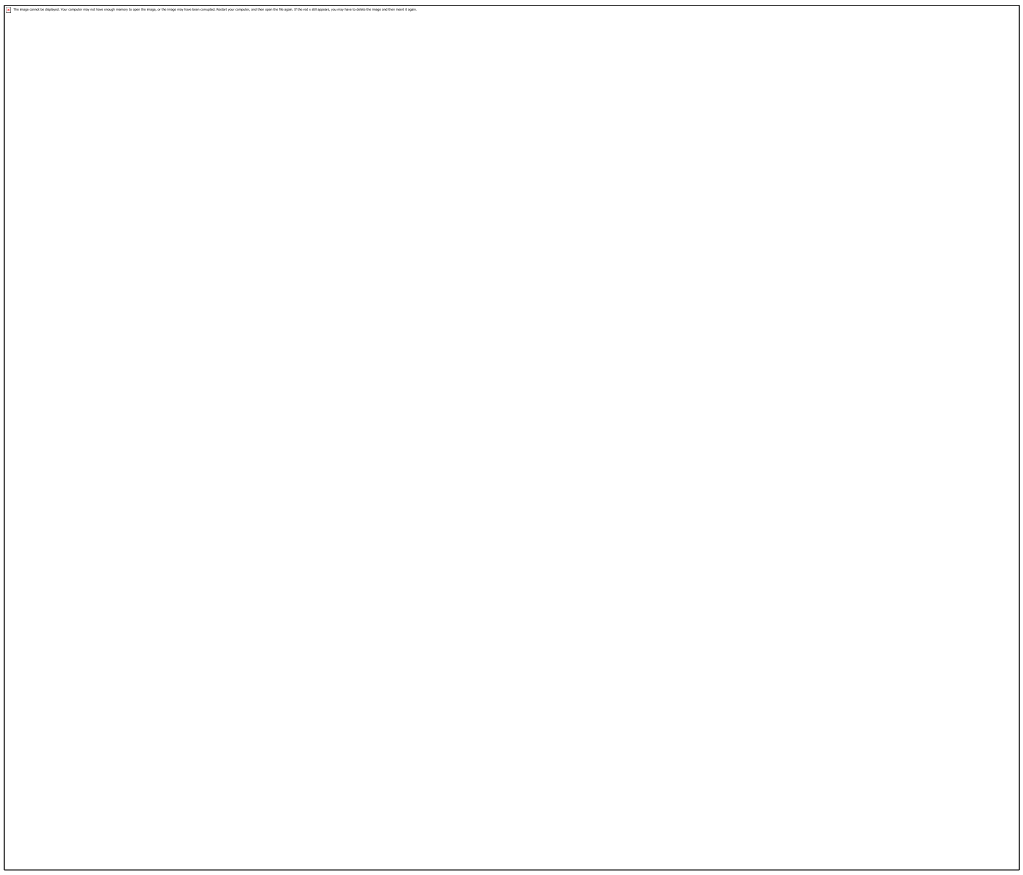
They help in theory building in curriculum work. Depending on the nature and complexity of what they represent, models generally are used in four categories:

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) Macdonalds Model

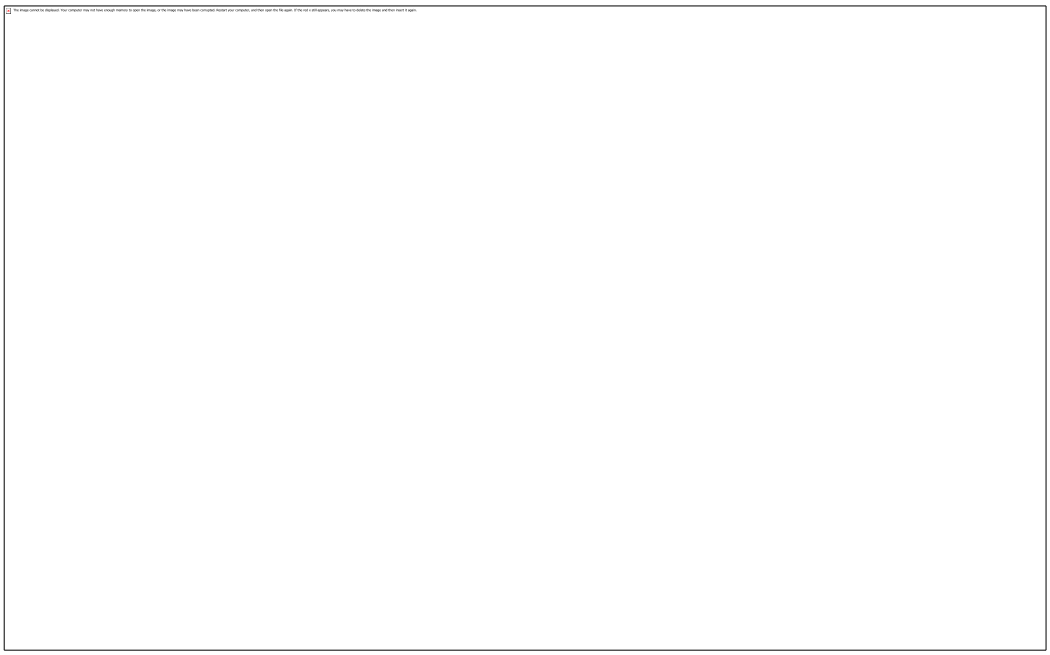
MacDonalds Model depicts curriculum as one of our interacting systems involving other systems such as teaching, learning and instruction. Teaching depicts a personality system involving a teacher performing his professional roles, learning as another personality system wherein the students perform task-related 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.



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) Johnsons 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 MacDonald also sees the role of curriculum instruction as that of guidance, it is a static representation with no visible processes built in, which is the focus of Johnsons 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.

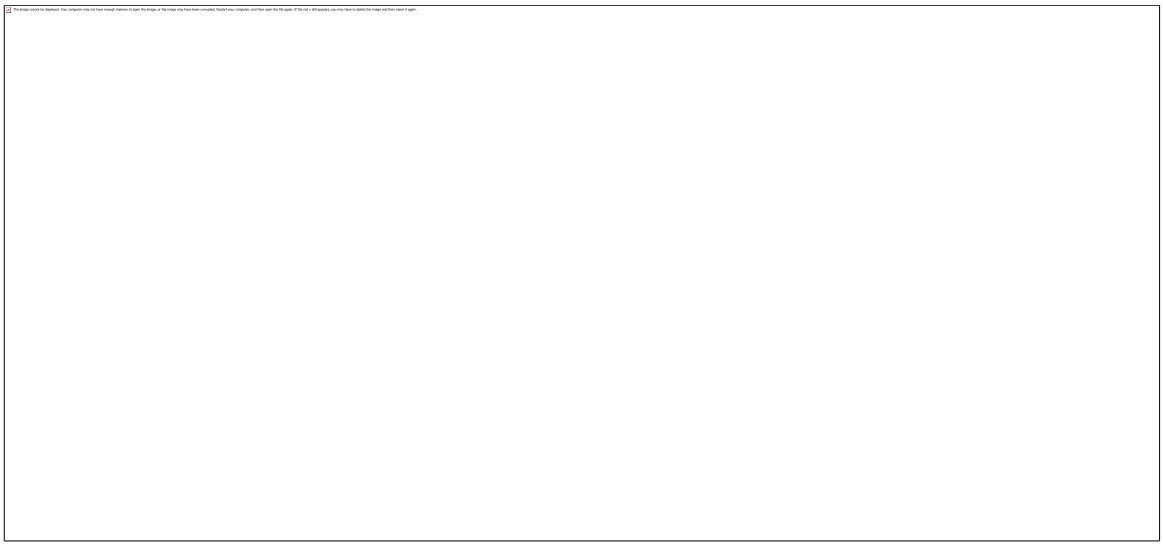


3) Zais Eclectic Model (The Foundations and Nature of The curriculum)

Zais Model of curriculum development 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 value 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).



4.0 CONCLUSION

From curriculum theory that children should not be viewed as miniature adults but organisms going through the different stages of developmental processes.

5.0 SUMMARY

In this unit you have learnt that;

- 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.
- Physical Model, Conceptual Model, Mathematical Model and Graphic Model
- The possibility to use model as a tool for stimulating research and theoretical construct.

SELF-ASSESSMENT EXERCISE

i. Explain the curriculum theory
ii. List and discuss the models of curriculum theory.

UNIT 3 CURRICULUM DEVELOPMENT AND DESIGN

CONTENTS

1.0 INTRODUCTION

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. The principal goal of this unit is to expose you to the development of curricula and to expose you to critically review and develop health training curricula. The unit focuses on 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:

- A statement of rationale: This outlines the general philosophy of the training programme and why it is required.
- Outline of the physical, administrative and financial requirements for such a course (resources).
- Definition of the optimal facilities in terms of buildings, equipment and personnel.

- A precise statement of entry requirements for students and methods of selection.
- A statement of course goals, specific objectives and course content.
- An outline of main learning experiences which should be arranged to meet the objectives.
- An outline of programmes giving a logical sequence of events.
- Specification of how long each unit or learning block should take.
- 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-Centered 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

The groups involved in curriculum development process; these individuals and groups are classified into external or internal participants.

5.0 SUMMARY

In this unit you have learnt that;

- 9 The constituent elements of a curriculum
- 4 factors influencing curriculum development academic, social, economic and political factors
- 3 approaches The Subject-Centered Approach, the Integrated Approach, and the Competency-Based or Task-Based Approach

6.0 TUTOR-MARKED ASSIGNMENT

Describe how you will develop a curriculum for nursing internship in Nigeria.

SELF-ASSESSMENT EXERCISE

i. List and describe the process of curriculum
ii. Explain factors influencing curriculum development.

7.0 REFERENCES AND FURTHER READING

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

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

Churchill Livivan, C. E. (1988). The Medical Teacher. London: 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. & Bramble, W. J. (1989). Understanding and Conducting Research. New York: McGraw Hill Book Company.

Moronkola, O. A.; Akinsola M. K. & 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. & 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. & 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, you have seen the various methodologies in the curriculum development; in this unit you 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 will be able to:

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

3.0 MAIN CONTENT

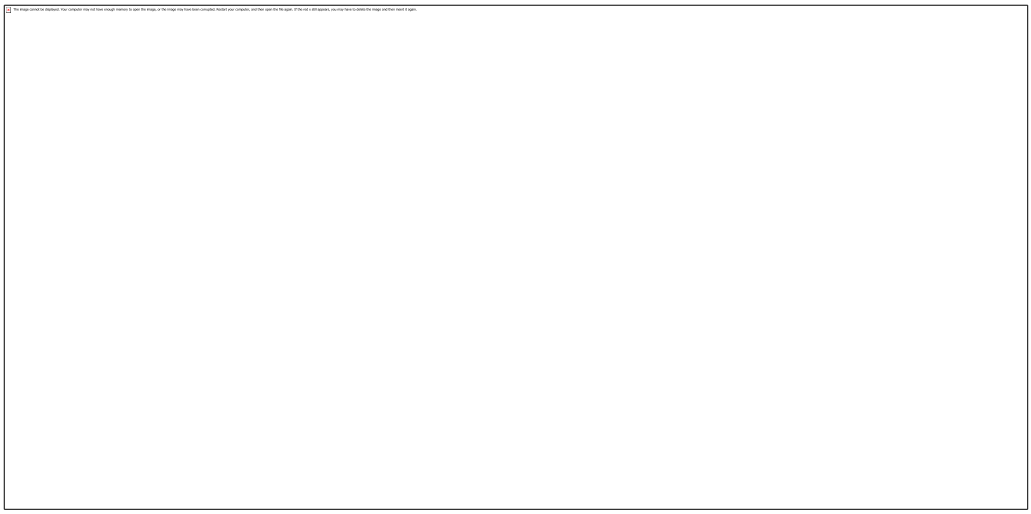
3.1 Stages of Curriculum Development

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.



3.2 Situational Analysis

Taking time to analyze 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, and then we must be interested in what the educational institutions should do for the society. Also we must be able to analyze the quality and quantity of staff available as well as facilities, teaching methods, textbooks, evaluation techniques. The question of funding must also be addressed.

3.3 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 behavioral objectives. Behavioral 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)

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 one clearly is not adequate unless there is an indication of the kind of content in which the behaviour is to apply.
More so, 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.

Many scholars asserted that objectives need to be stated in behavioral terms because the general purpose of all education is to change behaviour, therefore, course objectives must be stated in behavioral terms. More so, behavioral 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 behaviors 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 Behavioral Objectives

Behavioral 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 behavioral 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 behavioral 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 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.

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

Behavioral 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 scholars 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.
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

Behavioral 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.

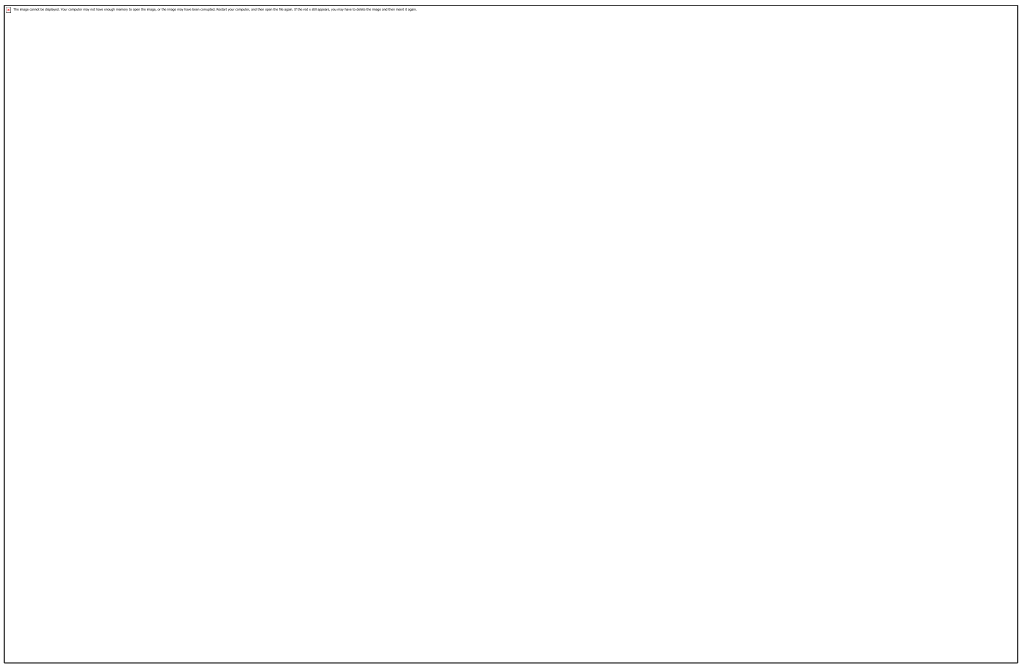
There are three main domains of stating behavioral objectives:

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.
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.

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 *Kinds of learning becomes*
(iv) Analysis *difficult as one moves down.*

(v) Synthesis
(vi) Evaluation
Cognitive Domain



Read the more from the table below. (Commonwealth of Learning, 2005).

Level	Explanation	Examples
1 Knowledge	The ability to recall facts in a rote manner.	Repeat a definition. Name the parts of a machine.
2 Comprehension	The ability to explain the meaning of a fact or idea.	Put a definition into one's own words. Explain why it is dangerous to touch 240 volt contacts.
3 Application	The ability to use information in new situations.	Calculate distance given speed and time. Conjugate a verb given the rules for the conjugation.
4 Analysis	The ability to identify the parts of, and relationship	Identify which statement follows from a set of premises.

	s in, a situation.	
5 Synthesis	The ability to put things together to create a whole.	Write a report.
6 Evaluation	The ability to judge value.	Identify the best of a number of strategies.

Verbs to use and avoid in objectives

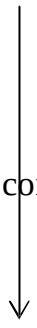
Verbs to avoid or be careful with the usage	Accept, appreciate, be aware of, consider, enjoy, examine, explore, have a good grasp of, know, realise, recognise, understand
Verbs to use	Break down, calculate, categorise, change, combine, compare, compile, compose, compute, contrast, convert, create, criticise, define, demonstrate, describe, design, devise, differentiate, discover, discriminate, discuss, distinguish, estimate, explain, give example, identify, illustrate, draw inference, interpret, judge, justify, label, list, match, measure, modify, name, operate, organise, outline, paraphrase, point out, précis, predict, prepare, produce, re-write, recall, select, separate, show, solve, state, sub-divide, summarise, transform, translate, use

2. Affective Objectives (Attitudes and Appreciation)

The affective objectives emphasized 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) Organizing
(v) Characterization of a value or value complex.



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 persons own internalized experiences and assessments and society's values:

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

(iv) Organizing

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) Characterization 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).

Psychomotor domain is mainly concerned with motor skills so that in instructional objectives, performance skills are prominent. Most psychomotor tasks reside in the human organism that develops 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

Valid assessment methods for certain 'Bloom verbs'

Level	Typical active verbs	Valid assessment methods
Knowledge	Describe	Ask for a verbal or written description
List		Ask for a verbal or written list
State		Ask for a verbal or written statement
Comprehension	Explain	Ask for a verbal or written explanation
Outline		Ask for a verbal or written outline
Predict		Ask for a verbal or written prediction
Translate		Ask for a verbal translation if objective is 'to speak' Ask for a written translation if objective is 'to write'
Application	Construct	Require the learner to construct (e.g., create a spreadsheet, build a wall, bake a cake)
Solve		Require the learner to provide a solution, being clear as to whether he or she is to show the method (e.g., when solving a maths problems) or just to show the result (e.g., a solution to a crossword puzzle)
Use (a method)		Require the leaner to apply the method. This may be written (e.g., use the net present value method to

	evaluate an investment) or physical (e.g., use the ABC method to resuscitate a patient; carry out a heart by-pass operation).	
Analysis	Analyse	Ask for a verbal or written analysis of a given scenario
Compare	Ask for a verbal or written comparison of two or more scenarios/situations	
Contrast	Ask for a verbal or written contrast of two or more scenarios/situations	
Distinguish	Ask for a verbal or written distinction of two or more scenarios/situations	
Explain	Ask for a verbal or written explanation of one or more complex situations. (Simple explanations are at the comprehension level.)	
Synthesis	Compose	Ask the learner to compose a piece of music
Construct/create	Ask the learner to construct something original (e.g., a statue, an electronic circuit). (Note: At this level, 'construct' implies 'design' as well.)	
Create	Ask the learner to create an original work (e.g., a poem)	
Design	Ask the learner to design something (e.g., a stage set)	
Plan	Ask the learner to produce a plan (e.g., a plan for a new traffic system, a plan for a new garden)	
Evaluation	Choose	Provide data and ask the learner to make a choice
Decide	Provide data and ask the learner to make a decision	
Justify	Provide data and ask the learner to justify a choice, decision, etc.	
Prioritise	Provide data and ask the learner to prioritise it	
Rate	Provide data and ask the learner to rate it against certain criteria (the criteria may or may not be provided)	
Select	Provide data and ask the learner to select one or more options	

Source: Commonwealth of Learning (2005)

Choosing an appropriate question format

2		3
Category	Suitable self-assessment formats	Additional methods suitable for teacher-marked assessments

<table>
<tr><td>Knowledge</td><td colspan="2">• multiple choice (one or more correct answers)
• true/false
• matching
• fill in the blank
• short answer</td></tr>
<tr><td>Comprehension</td><td>• multiple choice (one or more correct answers)
• true/false
• matching
• fill in the blank
• short answer</td><td>• essays</td></tr>
<tr><td>Application</td><td colspan="2">Where recognition of how to apply is sufficient:</td></tr>
<tr><td colspan="2">• multiple choice (one or more correct answers)
• true/false</td><td>• short answer</td></tr>
<tr><td colspan="3">Where actual application of a theoretical method is required:</td></tr>
<tr><td colspan="3">• short answer
• fill in the blank
• create/do something (e.g., type a letter; create a database; change a car wheel)</td></tr>
<tr><td colspan="3">Where actual application of a practical method is required:</td></tr>
<tr><td colspan="3">• create/do something (e.g., type a letter; create a database)</td></tr>
<tr><td>Analysis</td><td colspan="2">When you wish the learner to identify elements/relationships that you regard as being the correct answers:</td></tr>
<tr><td colspan="2">• multiple choice (one or more correct answers)
• true/false
• matching
• short answer
• fill in the blank</td><td>• essay</td></tr>
<tr><td colspan="3">When you wish learners to produce original analyses where you are unable to predict the answers:</td></tr>
<tr><td colspan="2">• short answer
• essay outline
• report outline
• project outline</td><td>• essay
• report
• project</td></tr>
<tr><td>Synthesis</td><td>• essay outline
• report outline
• project outline</td><td>• essay
• report
• project</td></tr>
<tr><td>Evaluation</td><td>• multiple choice (one or more correct answers)
• true/false
• short answer
• fill in the blank</td><td>• essay
• report
• project</td></tr>
</table>

	• essay outline	

Commonwealth of Learning (2005)

A Quick Guide to Type of Questions

Level	Type of Verb
Knowledge	List, state, describe (typical active verb)
Comprehension	Explain (typical active verb), outline, predict, translate
Application	Construct (typical active verb), solve, use (a method)
Analysis	Analyse (typical active verb), compare, contrast, distinguish, explain
Synthesis	Compose (typical active verb), construct/create, create, design, plan
Evaluation	Choose (typical active verb), decide, justify, prioritize, rate, select

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 behavioral outcomes
d. what to evaluate in terms of the content studied and the behaviors sought in the learner
e. the evaluation of teacher's effectiveness

Saylor and Alexander (1974) noted that the arguments for explicit behavioral objectives and the goal should be stated in behavioral 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 behavioral objectives.
iii. Behavioral 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. Behavioral 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. Behaviorally 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.

3.4 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.

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 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 is the repetition of concepts and generalizations of principles as they are continuously revisited throughout the curriculum. This simply means that a given concept

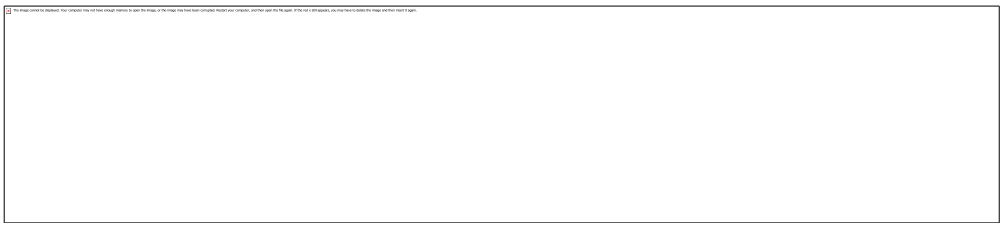
permeates the learning of students as they move to higher classes, but what is also important is that each higher level must have something new to be learnt. In other words, the composition of a specific lesson/curriculum must have order as well as progress. With increasing complexity or depth, this plan makes provision for vertical organizations.

Sequence

Sequence is more than the ordering of the subject matter to be taught and also beyond continuity to which it is very closely related. The latter centers on repetitions of concepts, but the former emphasizes succeeding higher levels or complexity. That is, at each class level, concepts and behaviors sought are considered in greater depth and breadth. The application of 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.



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 behavioral outcomes specified for each element of content. Translation of content into behavioral 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 pre-stated 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.

3.5 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.

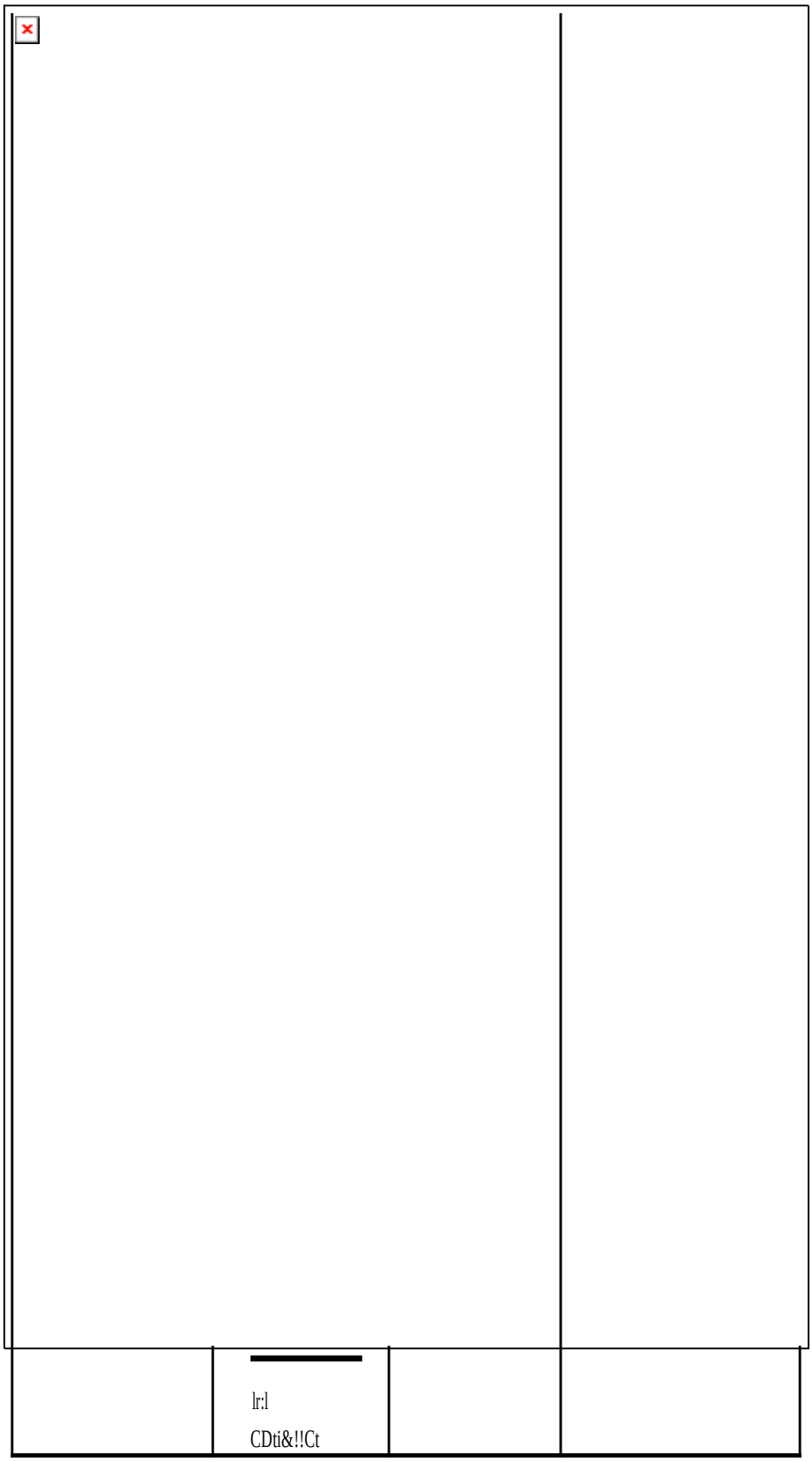
The importance of using appropriate teaching methods is so important. For effective teaching to take place the skillful teacher needs to use the many different methods and techniques at his/her command. Even though there is a great diversity in teaching methods and techniques, there is no one of that can be regarded asthe 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, appropriatemethods 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.

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.

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



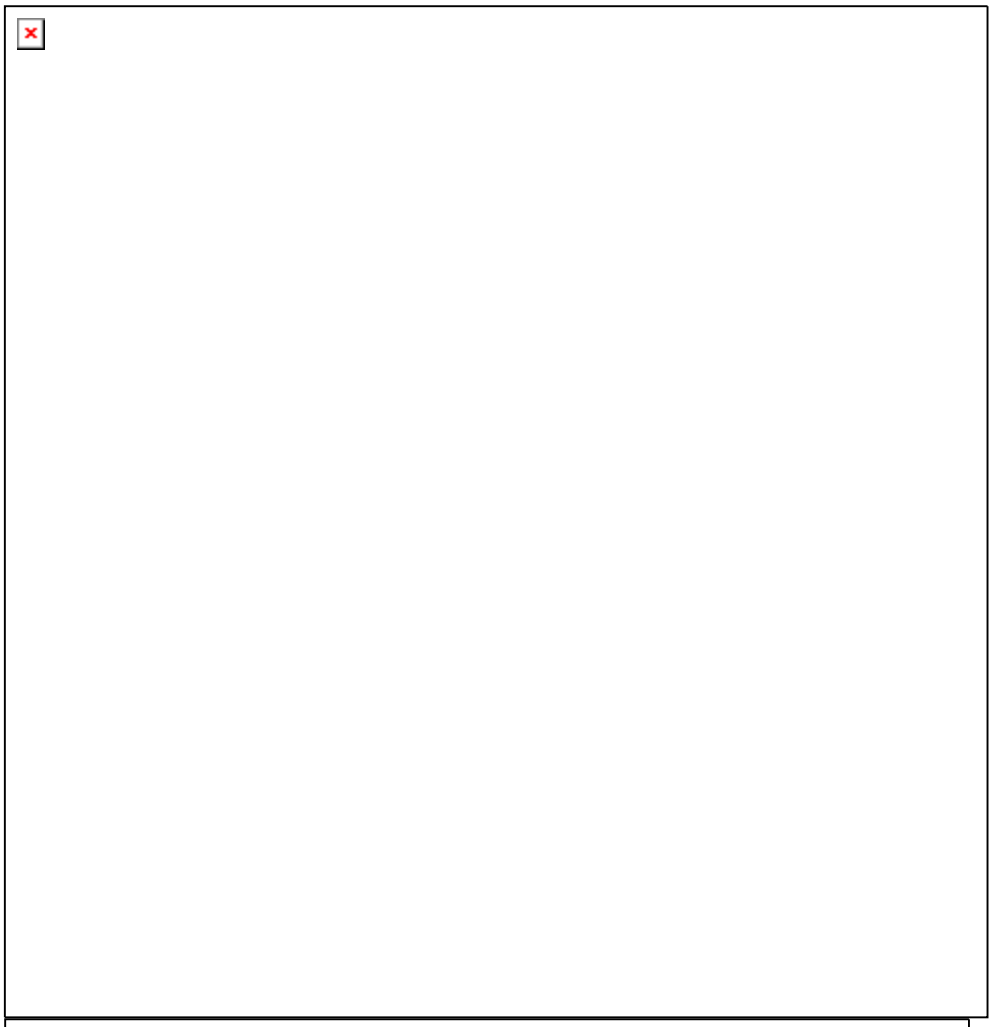
3.6 Evaluation

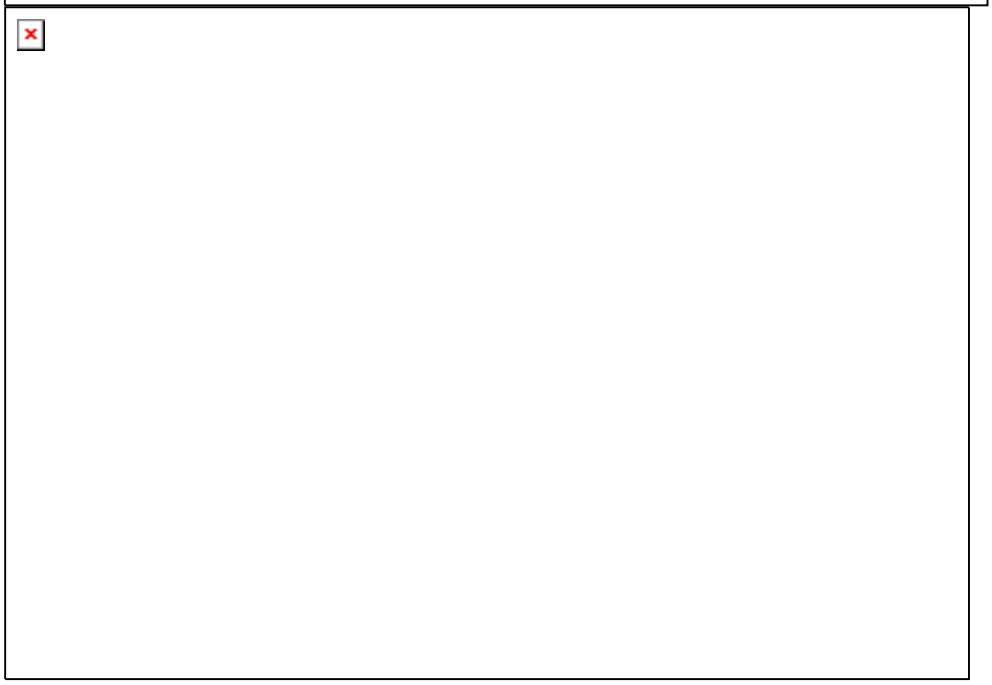
Evaluation can be regarded as a series of processes which entails a systematic processing of looking analytically into educational problems through the asking of appropriate questions, examining the answers correctly and using them as a basis for further decision-making. It is in-built into every process of systematic curriculum development. Since curriculum work involves conceptualizations, planning, and 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 endeavor, 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.

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.

Table of Curriculum Evaluation Framework





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.

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 you have studied 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 themain stages involved in curriculum development.

6.0 TUTOR-MARKED ASSIGNMENT

Take a glanced at the curriculum for basic nursing in Nigeria and critically examined its strengths and weaknesses

SELF-ASSESSMET EXERCISE

Identify and discuss the major stages in the process of curriculum development.

7.0 REFERENCES AND FURTHER READING

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

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

Churchill Livivan, C. E. (1988). The Medical Teacher. London: 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. & Bramble, W. J. (1989). Understanding and Conducting Research. New York: McGraw Hill Book Company.

Moronkola, O. A.; Akinsola M. K. & 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. & 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. & Bower, B. (1982). Helping Health Workers Learn. Hesperian Foundation.

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

UNIT 5 CURRICULUM DESIGNS

CONTENTS

1.0 INTRODUCTION

You have learnt about stages of curriculum development in the previous chapter, 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 will be able to:

- define curriculum design
- discuss various forms of curriculum designs
- identify advantages and disadvantages of curriculum designs

3.0 MAIN CONTENT

3.1 Curriculum Designs

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 color 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 will be considered along (1) Subject-centered design (2) Learner-centered design and (3) Problem- centered design.

3.2 Subject-Centered 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.

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 the 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 are the separate-subject curriculum, subject matter curriculum and the scientific subject curriculum. This design is common in primary and secondary schools.

Here, students are made to study bits of each subject in each school day 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 parents because of its time-honored status.

Characteristics

i. Learning a subject is based upon language activities talking, listening, writing,
ii. Reading, hence, it is expository in nature.
iii. Adults select and organize the content before it is presented to the learners.
iv. The content is universally true and hence is not affected by the local situation.
v. Each subject is in its own a compartment with little genuine concern for things outside its walls.
vi. 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 schools 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-centered 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 that command respect among academic colleagues and possess authority in their fields of endeavor. 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 Natures 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 complex 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 by 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 geologist 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 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 overlapping. 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, and 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-centered 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 teachers' 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 student's 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 centered designs require a favorable or conducive environment for children to work well and benefit from what they are doing since children come from different 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-centered designs are the activities/experience design, open classroom and humanistic design education. The commonest among the them is the activities/experience designs 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-centered 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 endeavor; however, few teachers are trained for this.
v. Most schools textbooks and teaching materials are not tailored 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 behavioral 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.

3.6 Problem-Centred Designs

Problem-centered designs is like the learner-centered ones developed in mans centered, 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/HIV, 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 Spencers 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:

Organizing 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 subject's curriculum with fragmentation of knowledge and a call for a coherence of the total curriculum led to the clamoring for a unifying core of studies which the other subjects would 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-centered tradition. It aims to provide common learning in a more coherent form by showing the relationships between the two or more subjects included in the core.

(c) The Fused Core: Also rooted in the subject-centered tradition, it is based on the integration or combination of two or more separate subjects. History, Economics, Sociology, and Political Science may be fused and taught as Social Studies while Physics, Botany, Geology, Chemistry; 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 learner's interest.

(e) The Areas of Living Core: It is regarded as the authentic core design because it is problem centered rather than subject centered 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

In this unit, you have extensively deliberated on the various forms of designs by which curriculum has been fashioned out.

5.0 SUMMARY

The designs range from subject centered, discipline centered, broad field progressive or learner centered to problem centered. 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 someone 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

Discuss in group on factors to be considered when planning a curriculum in nursing education.

SELF-ASSESSMENT EXERCISE

i. Define curriculum design
ii. Discuss various forms of curriculum designs
iii. Identify advantages and disadvantages of curriculum designs.

7.0 REFERENCES/FURTHER READING

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

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

Churchill Livivan, C. E. (1988). The Medical Teacher. London: 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. & Bramble, W. J. (1989). Understanding and Conducting Research. New York: McGraw Hill Book Company.

Moronkola, O. A.; Akinsola M. K. & 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. & 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. & Bower, B. (1982). Helping Health Workers Learn. Hesperian Foundation.

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

MODULE 2 THE TEACHING-LEARNING PROCESS

UNIT 1 TEACHING-LEARNING PROCESSES I

CONTENTS

1.0 INTRODUCTION

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. The strategy for teaching must be modeled after the environment in which students find themselves. In this module you will be exposed to teaching –learning process and the methods for teaching and learning. 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 you 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
- discuss the teaching –learning process
- explain various teaching methods
- deliberate on the requisite instructional resources required in teaching- learning process

3.0 MAIN CONTENT

3.1 Learning

Bower and Hilgard (1986) see learning as the change in a subjects 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.

1. Onwuegbu, (1979) says learning is a process through which behaviour is initiated, modified or changed.
2. OConnell (1973) defines learning as a relatively more or less permanent change in behaviour which comes about as a result of experience.
3. 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.
4. Learning, to Thorndike, was discrete accumulation of stamped in S-R bonds.
5. Learning is a relatively permanent change in a behavioral potentiality that occurs as a result of reinforced practice. (Hengenhann 1982)
6. Gagne, (1970) describes learning as a human disposition or capability which can be retained and which is not ascribable to the process of growth.

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 classify learning as multiple discrimination, learning of concepts, learning of principles and problem-solving.

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 enduring 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 learners innate and environmental factors. The environmental factors should be very stimulating and powerful enough before they can evoke high quality learning.

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.

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 mothers 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 unguarded 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 be able to 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 ones aging process. Human 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 continuously learn to change his behaviour when need be and assimilate the norms of his society in language, 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, and 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 Learning

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 in spite of difficulties, obstacles and unpleasantness is partly determined by 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.
- 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 learners 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.
- Learners' personality is a product of learning experiences.
- Learning is accelerated when the learners' 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.

Natural or Hereditary Factors

These are factors one is born with or what one inherits from ones parents. The factors may also be termed genotypic 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 learners level of maturity.
- Sex; age and self-concept.

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.

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 neighborhood. 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.

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.
- Childs socio metric status/popularity in his/her class or school.
- The tradition of the school.

Teachers Factors

- The number of teachers; the 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

Learning is said to be a relatively permanent change in behaviour due to experience. Learning occurs in all humans.

5.0 SUMMARY

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.

SELF-ASSESSMENT EXERCISE

i. explain what you understand by the term *learning*
ii. list the principles of learning
iii. discuss what learning is not
iv. enumerate the factors which can affect learning.

6.0 REFERENCES AND FURTHER READING

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

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

Churchill Livivan, C. E. (1988). The Medical Teacher. London: 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. & Bramble, W. J. (1989). Understanding and Conducting Research. New York: McGraw Hill Book Company.

Moronkola, O. A.; Akinsola M. K. & 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. & 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. & Bower, B. (1982). Helping Health Workers Learn. Hesperian Foundation.

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

UNIT 2 TEACHING-LEARNING PROCESSES II

CONTENTS

1.0 INTRODUCTION

In the previous unit, you 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 more 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
- outline the six tasks of a teacher

3.0 MAIN CONTENT

3.1 Theories of Learning

There are three main groups of theory:

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

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

Behaviorists

B. F. Skinner

Skinners 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: Skinners 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 behaviorists 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: Gagnes approach is a useful one in planning effective learning experiences, e.g. Skills cannot be learned unless students are given opportunities to practice under supervision and given feedback on their performance.

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: Blooms 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.

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:

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

iii. 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.
iv. help students to make sense of what they are learning by showing how it is relevant to them.
v. provide plenty of practice and repetition of what they learn.
vi. organize what is to be learned so that students find it easy and systematic.
vii. 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 Qualities of 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.

3.3.1 The Six Tasks of a Teacher

1. 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.

2. Communication

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

3. Providing resources

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

4. 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.

5. 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.

6. 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.

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.

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.

SELF-ASSESSMENT EXERCISE

i. identify the main theories of teaching and learning
ii. explain briefly the contributions of some theorists to teaching- learning development
iii. outline the six tasks of a teacher.

7.0 REFERENCES/FURTHER READING

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

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

Churchill Livivan, C. E. (1988). The Medical Teacher. London: 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. & Bramble, W. J. (1989). Understanding and Conducting Research. New York: McGraw Hill Book Company.

Moronkola, O. A.; Akinsola M. K. & 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. & 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. & Bower, B. (1982). Helping Health Workers Learn. Hesperian Foundation.

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

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

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.

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 the 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 emphasize 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 The 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 poorly 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 student's 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-modeling
- 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.

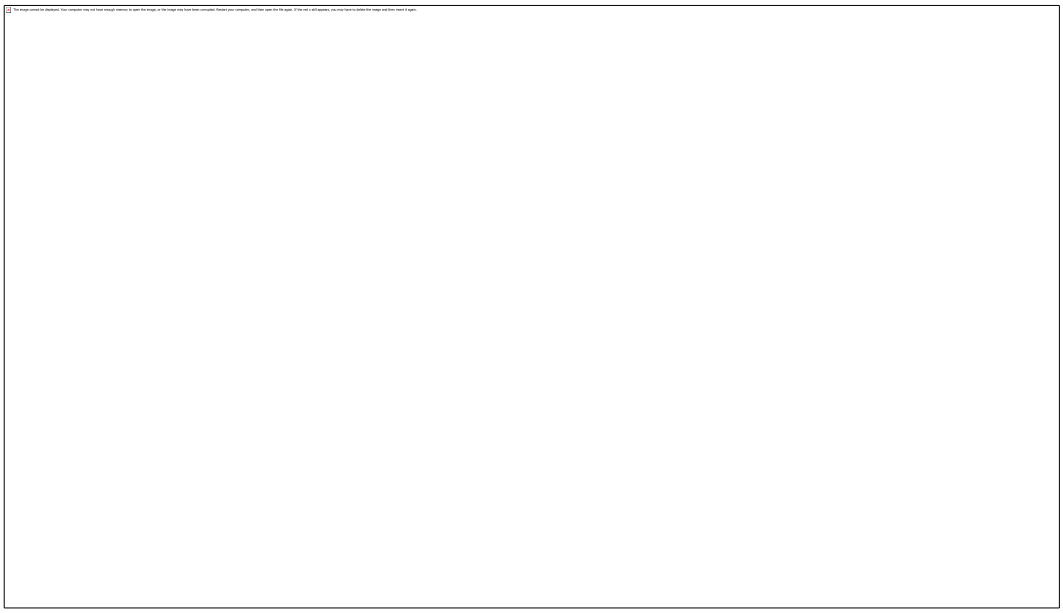
Good teaching involves much creativity and planning. A teacher who relies on one method only is not likely to help students learn much.

3.4 Teaching and Learning Method

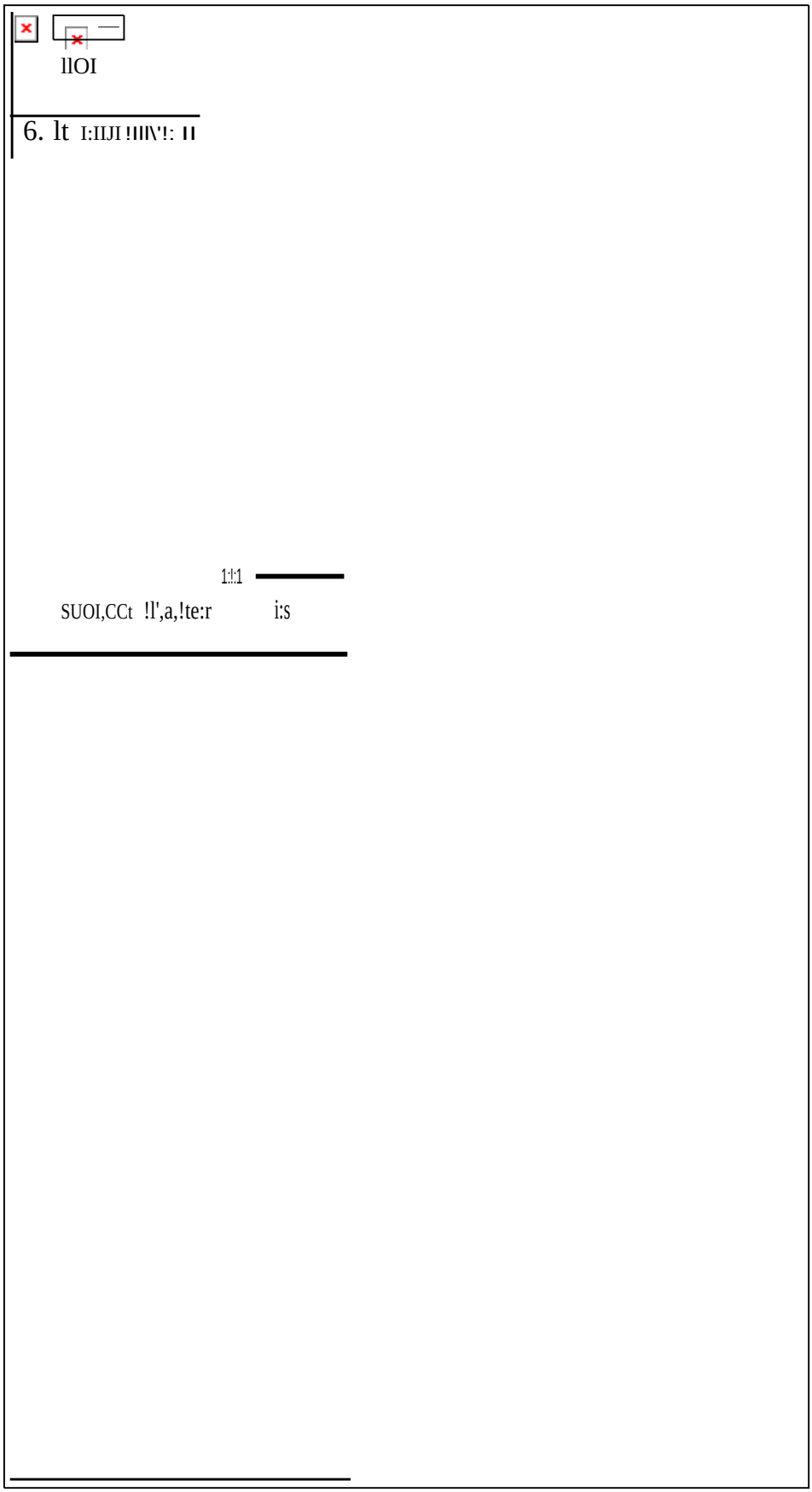
In this section, an attempt is made to review several teaching methods. The amount of information given is limited to a brief overview, advantages and disadvantages.

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.



4. It is an alternative method of teaching when books are in short supply	4. It does not provide immediate feedback to lecturer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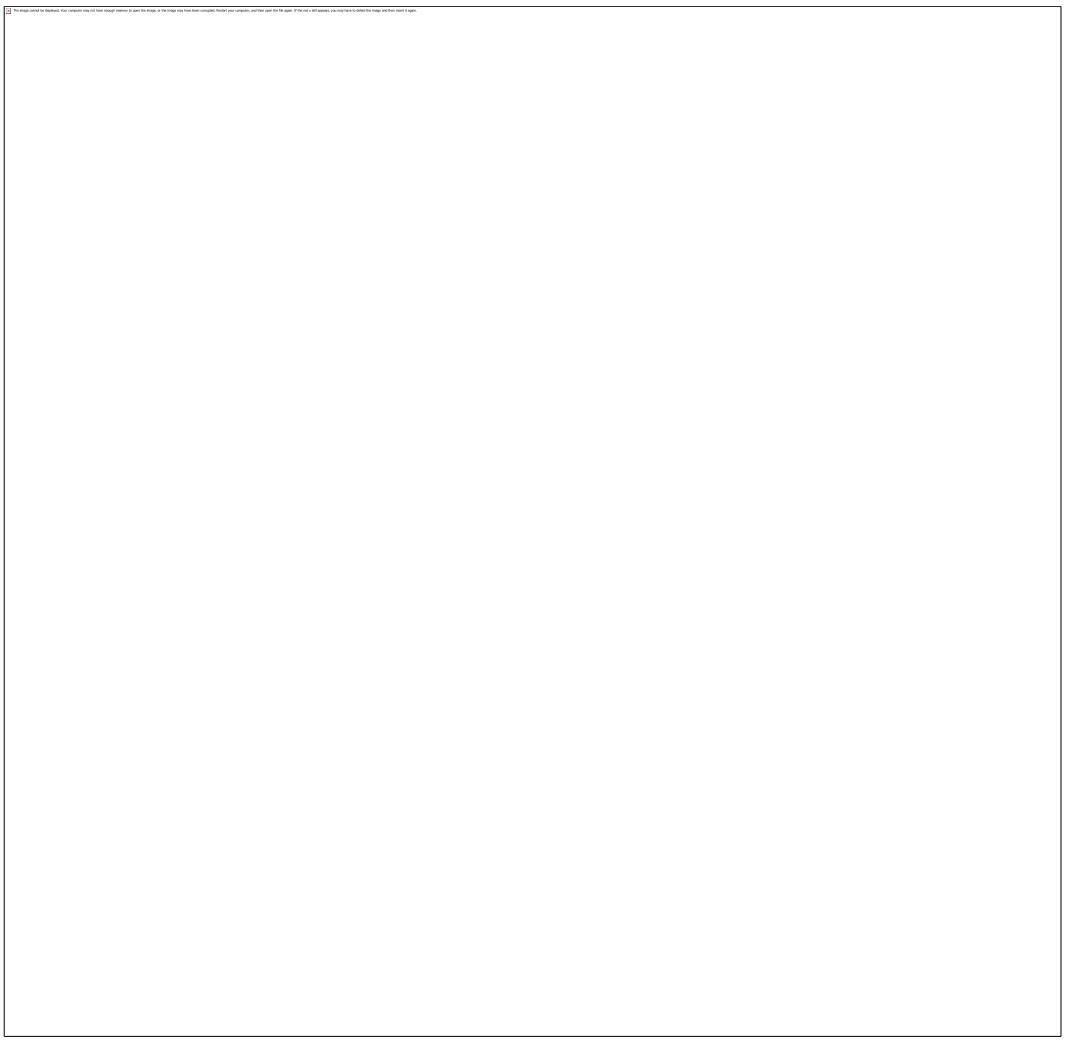
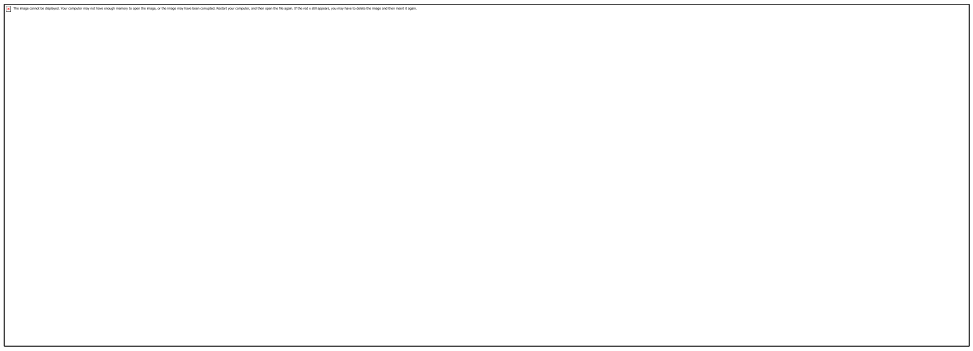
Practical

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

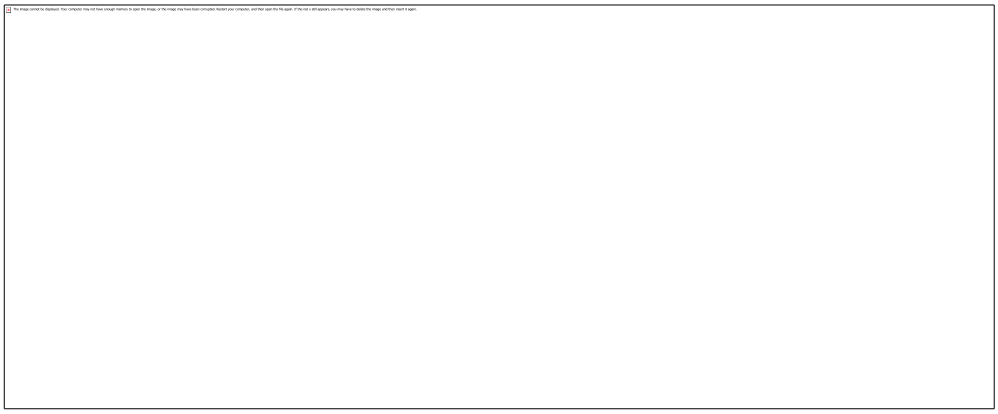


Field Visit

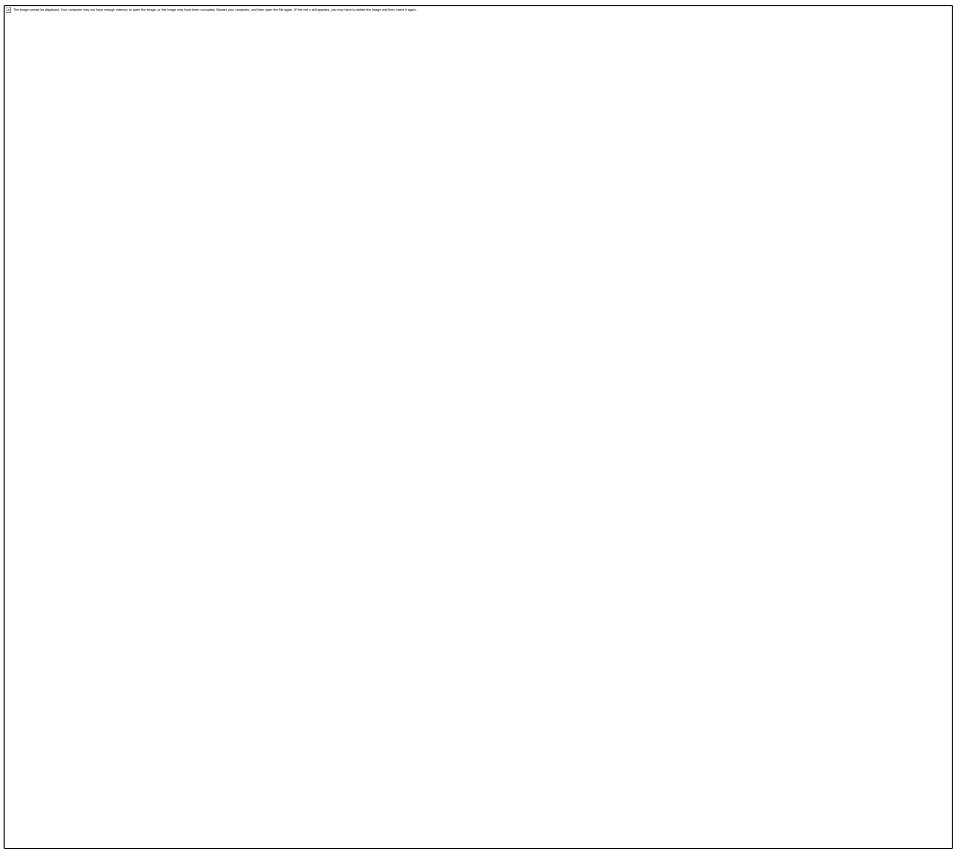
Courses for health-care staff often include field experience. In this case students go away from the training school to actually do the work for which they are being trained.



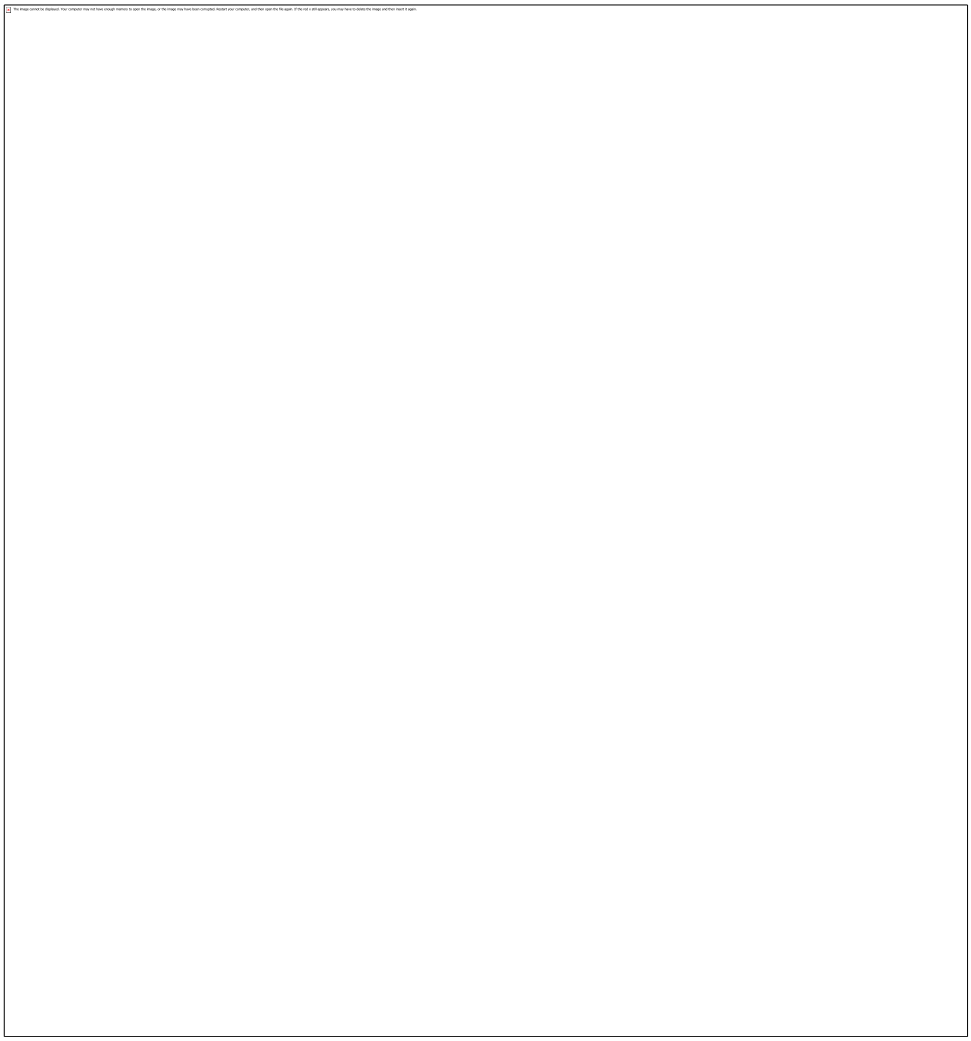
3. It provides a situation for creative and independent thought on the part of the student.	3. It may confuse students because there is usually a wide gap between field practice and academic theory.



Demonstration



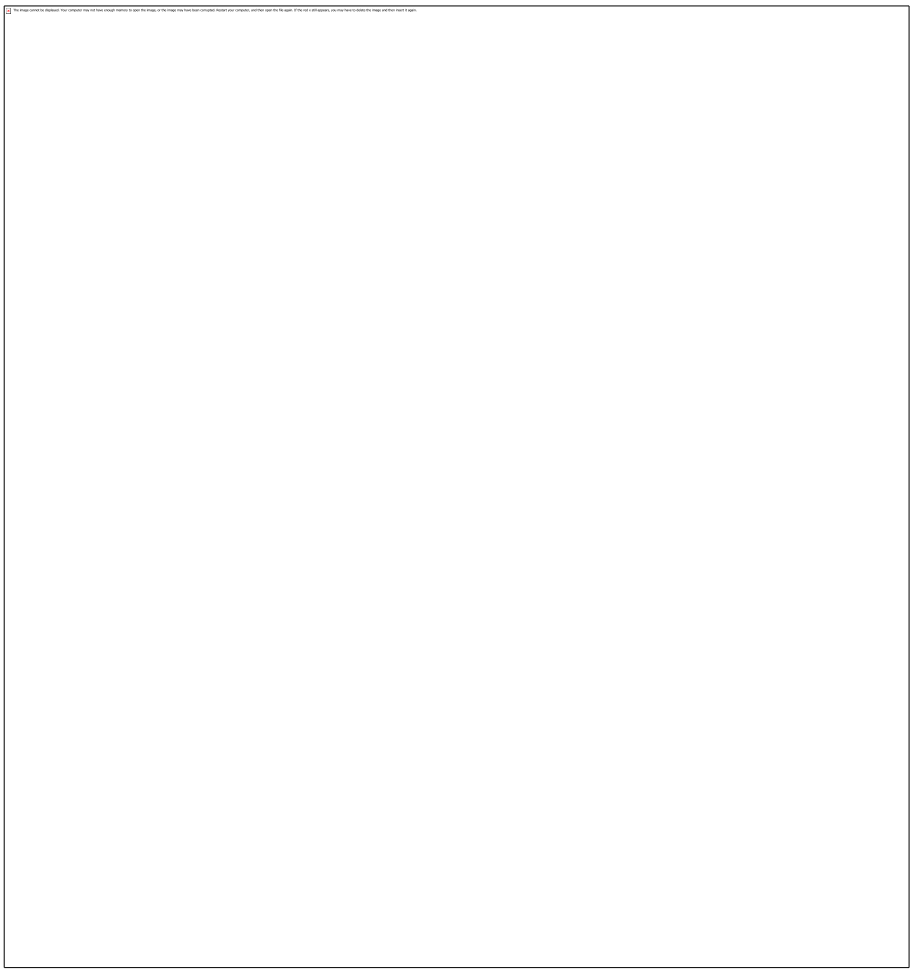
Individual Learning



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.



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

i. Examine the list *ON SECTION 2.3.4* and add to it. Discuss those items which you feel are not valid teaching methods.
ii. 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).

SELF-ASSESSMENT EXERCISE

i. explain the ANY FOUR teaching methods
ii. discuss the advantages and disadvantages of the FOUR teaching methods.

7.0 REFERENCES/FURTHER READING

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

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

Churchill Livivan, C. E. (1988). The Medical Teacher. London: 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. & Bramble, W. J. (1989). Understanding and Conducting Research. New York: McGraw Hill Book Company.

Moronkola, O. A.; Akinsola M. K. & 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. & 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. & Bower, B. (1982). Helping Health Workers Learn. Hesperian Foundation.

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

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

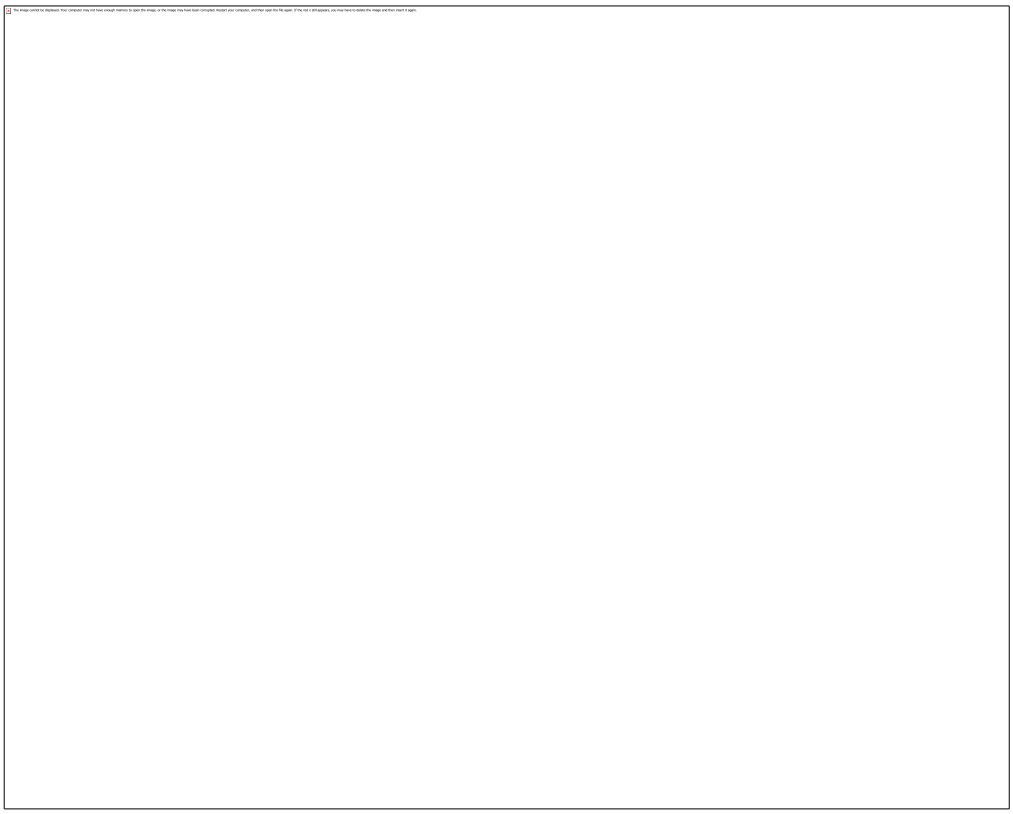
At the end of this unit, you should be able to:

- 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.



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 provide 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 analyze, 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 analyze some of the causes of glaucoma. Group discussion can be instructor-centered or student-centered.

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 students.	2.Group discussion does not guarantee that an objective will be accomplished within a fixed 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	4. Lack of planning by the group leader or the group itself concerning the agenda and specific learning objectives

information from one source. Work becomes more interesting; there is greater motivation to learn.	
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.

3.4 Simulation

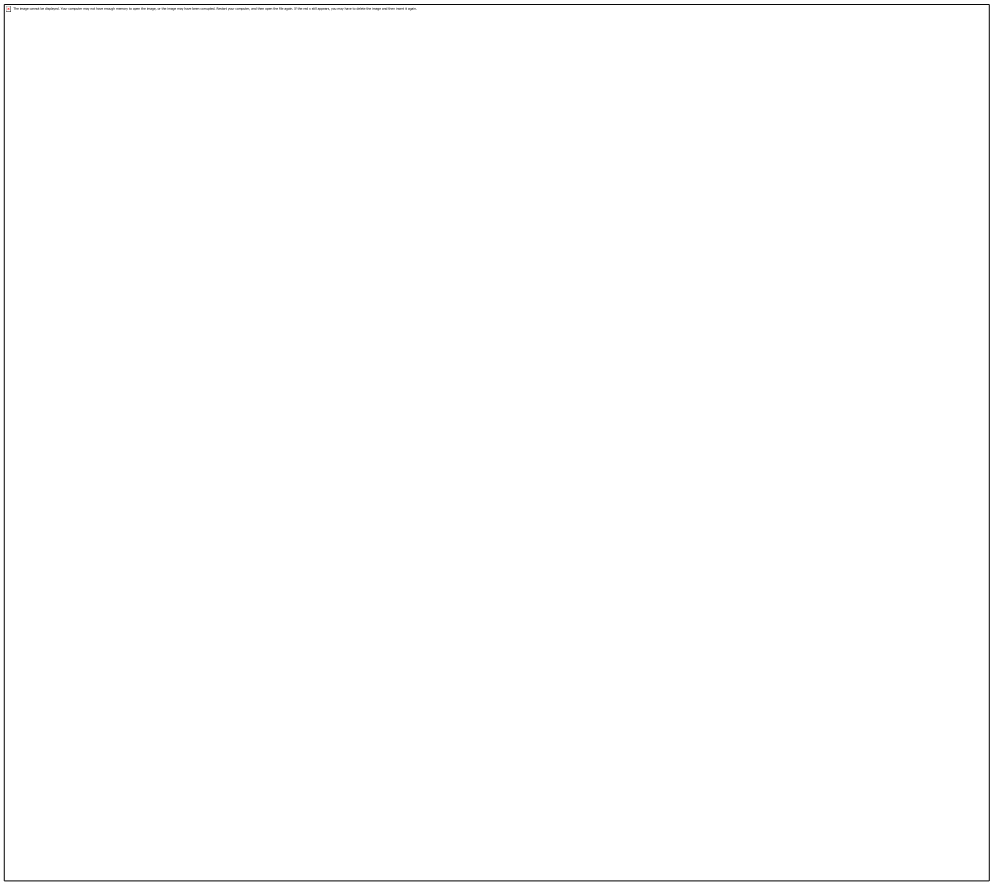
This instructional method is used to enable students develop skills in dealing with "real-life" situations and "problems" in a classroom setting. Simulation is the general instructional process which is usually classified into two types: simulation games and simulators.

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 practicing skills relevant to that real-life situation.



3.5 Role Play

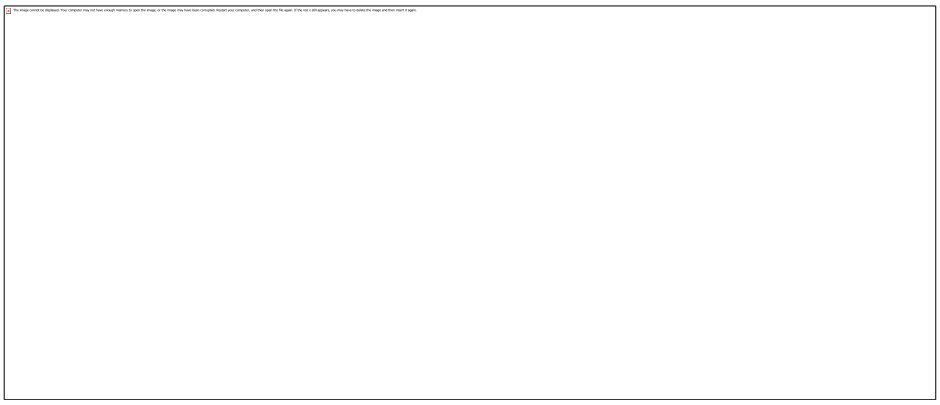
Role play is when the teacher suggests a situation and students are given roles to play. These techniques is somewhat like an ordinary play in which each participant is assigned a character, but in this case no lines are earned. The individual playing a specific role provides his/her responses to the situation. This 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 students 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 analyzed by the group after the session and guidelines for the analysis should be provided before the session.



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 passes diseased meat as safe for human consumption which causes the consumers to become infected.

Advantages	**Disadvantages**
Learning not easily forgotten!	Such teaching cannot be planned.

3.7 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 knowledge 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.

3.8 How Attitudes Are Taught

An attitude is a tendency to behave or think in a certain way, e.g. respect for ideas that other people have. Certain attitudes are formed or changed during training. Attitudes are rather vague 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

Describes how you will organize a role play to teach students on prevention of Ebola virus disease in a community

SELF-ASSESSMENT EXERCISE

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

7.0 REFERENCES/FURTHER READING

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Churchill Livivan, C. E. (1988). The Medical Teacher. London: 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. & Bramble, W. J. (1989). Understanding and Conducting Research. New York: McGraw Hill Book Company.

Moronkola, O. A.; Akinsola M. K. & 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. & 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. & Bower, B. (1982). Helping Health Workers Learn. Hesperian Foundation.

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

UNIT 5 TEACHING AND INSTRUCTIONAL RESOURCES

CONTENTS

1.0 INTRODUCTION

In the previous units, you have 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 and communication understandable to the learner is the use of instructional 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. They

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 retention (the ability to remember), 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.

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

i. When preparing transparencies do not write too close to the edge
ii. You might lose half the image. Leave at least an inch of margin all rounds.
iii. For more complex drawings, prepare a pencil sketch then lay the transparency over the sketch and copy onto the transparency. You can also copy a diagram from a book.
iv. Lettering should not be too small – about 4mm (one-eighth of an inch).
v. A transparency should convey one theme. Put as much as necessary but as little as possible on a transparency. Ensure clarity and impact.
vi. Leave room for future alterations.
vii. Jot down your lecture notes on the frame of the OHP.

viii. 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 colors, 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.

Non-Projected Aids
These include the chalkboard, pictures/cartoons, flipcharts, posters, the real thing, handouts and flannel boards.

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 are 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 working 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.

Pictures

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

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 labeling, remember to:

- Use thick felt pens.
- Use different colors 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.

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.

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 think of other teaching aids, that are imitations 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.

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 colors 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

- Barajas 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.

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 center

3.2 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?

Previewing
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:

i. Introducing a subject, stimulating interest, arousing curiosity.
ii. Prescribing the main body of the lesson, i.e. as the chief vehicle for transferring information.
iii. For recapitulation, to assist in consolidation of knowledge. Having determined the role of the teaching aid, the students minds must be prepared to obtain the maximum benefit from the aid.
iv. Tell them what to look for and explain and comment where necessary.

Presenting
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:

i. Discussion
ii. Asking and answering questions
iii. Questionnaires and assignments
iv. Weekly tests

3.3 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. In this unit, you have been exposed to various teaching and learning aids commonly used in helping students learn.

5.0 SUMMARY

The unit also covers types, uses and limitations of the various aids.

6.0 TUTOR-MARKED ASSIGNMENT

Prepare appropriate teaching and learning aids to give a 25minutes lecture.

SELF-ASSESSMENT EXERCISE

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

7.0 REFERENCES/FURTHER READING

Abbatt, F. & McMalwn, R. (1993). Teaching Health-Care Workers.

Ibadan: Macmillan.

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

Churchill Livivan, C. E. (1988). The Medical Teacher. London: 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. & Bramble, W. J. (1989). Understanding and Conducting Research. New York: McGraw Hill Book Company.

Moronkola, O. A.; Akinsola M. K. & 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. & 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. & Bower, B. (1982). Helping Health Workers Learn. Hesperian Foundation.

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

MODULE 3 CURRICULUM EVALUATION

Unit 1 Assessment of Learning and Teaching

UNIT 1 ASSESSMENT OF LEARNING AND TEACHING

CONTENTS

1.0 INTRODUCTION

This module concludes your study of curriculum development process. You will have seen, so far, the cycle nature of curriculum development. In other words, evaluation is not the end of the process. The outcome of evaluation is useful in determining the changes or revision that would be made in new curriculum plans and setting new objectives. In a changing world, curriculum development cannot be a static process, but a dynamic one that will reflect the changes occurring in the environment; in new knowledge from research, and in new methodologies and materials for instruction. Therefore, in this concluding module, you will study the various uses of curriculum evaluation. You will be able to see clearly, that without evaluating the curriculum, it is impossible to know of the objective were achieved or not, and it will equally be difficult to determine fresh objectives for the next plan in a fast changing world. 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.
- why curriculum evaluation is necessary;
- the relevance of curriculum evaluation to curriculum revision; and
- the various other uses of curriculum evaluation.
- evaluation of teaching process

3.0 MAIN CONTENT

3.1 Evaluation

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 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.

3.3.1 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.

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.

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

How to set essay questions

a. Decide whether there is no alternative method of assessment.
b. Make the question very specific, describing exactly what students should do.
c. 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 diarrhea. She wanted to emphasize the importance of finding out the causes of diarrhea. 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 diarrhea 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 diarrhea

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 gonorrhea itself and the complications of gonorrhea.

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 gonorrhea, which do you think is the better question?

Question
What is the treatment of gonorrhea?

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
Josephines 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. Goats 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 teaching, 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 choose (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 students 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!

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 many 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.

5.0 SUMMARY

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.

6.0 TUTOR-MARKED ASSIGNMENT

Construct 2 essay questions and 10 MCQ from your micro teaching presentation on management of patients with diabetes mellitus.

SELF-ASSESSMENT EXERCISE

i. differentiate between evaluation, assessment and examination
ii. describe the purpose of evaluating learners
iii. explain the various assessment methods of knowledge, skills and attitudes.

7.0 REFERENCES/FURTHER READING

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

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

Churchill Livivan, C. E. (1988). The Medical Teacher. London: 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. & Bramble, W. J. (1989). Understanding and Conducting Research. New York: McGraw Hill Book Company.

Moronkola, O. A.; Akinsola M. K. & 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. & 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. & Bower, B. (1982). Helping Health Workers Learn. Hesperian Foundation.

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

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 peers. 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.

3.2 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 students 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 is 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. Practice the skill learned.

You 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.

3.3 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.

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.

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.

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.

3.4 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 b 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 practice
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. Practice 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 on 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.

3.5 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 student's 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 least, 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 days 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.

5.0 SUMMARY

In this unit, 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.

6.0 TUTOR-MARKED ASSIGNMENT

Prepare and present a micro-teaching using the various teaching skills and aids and evaluate the teaching process with colleagues.

SELF-ASSESSMENT EXERCISE

i. Define micro-teaching
ii. Differentiate between micro-teaching and macro-teaching.
iii. Account for the basic teaching skills a teacher is expected to exhibit.

7.0 REFERENCES/FURTHER READING

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

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

Churchill Livivan, C. E. (1988). The Medical Teacher. London: 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. & Bramble, W. J. (1989). Understanding and Conducting Research. New York: McGraw Hill Book Company.

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

Nicholls, A. & 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. & 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. & Bower, B. (1982). Helping Health Workers Learn. Hesperian Foundation.

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