PED 430: Design and Production of Learning Materials for Primary Schools.

Effective learning is the product of good teaching. Every teaching method calls for the use of an appropriate, selected, carefully designed, creatively produced and effectively applied learning materials. The course is very important for the first degree programme in Primary Education. PED 430 has been developed to sharpen the teacher's focus on the main purpose of the teaching profession. In addition, the course equips one with the valuable skill's to design and produce learning material as well as make selections of the useful materials based on sound criteria.

The design and production of learning materials in primary schools in a special course. It is also very relevant to the teacher in terms of future prospects in his/her profession. The course is interesting, creative and active, but it can be costly and time consuming.

A summary of the action of decisions can be broken down as follows:

- the design
- the production
- the application
- the cost effectiveness

  ➤ Some basic questions like why am I designing the learning materials?

  ➤ What is the need for the design?

  ➤ Which types of materials do I need to produce?

  ➤ Who am I producing them for?

  ➤ Can they use the materials?

  ➤ Do I have the skills?

  ➤ Are the products appropriate and relevant to achieve the objectives?

  ➤ Is the exercise (i.e. the design etc.) cost effective in terms of time and money?

On the whole, the general aim of the course is to guide the teacher through the system approach of design and production of materials for primary schools.

MODULE 1 THE NEED FOR LEARNING MATERIALS IN PRIMARY SCHOOLS

UNIT 1 PRIMARY EDUCATION WITHIN THE CONTEXT OF THE NATIONAL POLICY OF EDUCATION

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    4.1   Reflecting on the Concept and the Purpose of Education
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1.0   INTRODUCTION

Do you know that this course book is a learning material? It was designed and produced for learners like you, who are adults and are learning at various geographical locations. Many factors were considered in its design and eventual production. One important factor is the contextual environment in which you, the learner and the designer/producer (i.e. NOUN Course Team) are operating. The context in which we are operating is Nigeria and the National Policy on Education provides the guiding principles for the entire education system. You are not learning about the whole education system in the course.

Design and production involve planning in which many decisions must be resolved at each stage of the design and the production cycles. The design process does not exist

in a vacuum. There must be a need that the designed product will satisfy the end users. In this introductory unit, you will be reminded of the purpose of education, and set primary education within its contextual environment. This will enable you understand the position of the primary school within the education system. By so doing, it will enable you to appreciate the knowledge you have gained from the educational foundation courses you have studied in the past. This previous knowledge will help you to analyse and see the need for designing learning materials which are appropriate for the primary school level. I am sure you are eager to learn as much as possible in this course. So, let's go!

2.0   OBJECTIVES

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

* explain the purposes and functions of education, reflecting on some known views on education
* discuss the historical development leading to the rights to education for all;
* explain the World Declaration on Education for All (EFA)
* analyse primary education within the context of the National Policy on Education
* deduce the need for learning materials in primary schools.

HOW TO STUDY THIS UNIT
Read through this unit carefully. Study the unit step by step as the points are well arranged

NOTE: All Answers to Activities and Assignment are at the of end this Book.

3.0   WORD STUDY

EFA: World Education for All

4.0   MAIN CONTENT

4.1   Reflecting on the Concept and the Purpose of Education

If you go through several books on education, it is possible that you will discover quite a diversity of meanings and purposes of education. Let's review the following examples.

Socrates viewed education as an opportunity given to humans to utilise their God given reasoning power to acquire knowledge for their own good and the good of the society.

To Dewey, education is a process of living and not preparation for the future, therefore education should be relevant and enjoyable. He strongly believes in making learning permanent through active participation of the learner.

In his own perceptions, John Locke considers that education is a process of appropriately developing the individual learner physically, morally and intellectually. John Locke, in this regard, is recognising the role of the teacher and her/his teaching methods. Education should be holistic.

Professor Babatunde Fafunwa, taking a modern view, is convinced that education, which is directed towards the development of scientific and technological knowledge, is mostly directed towards the development of self, the community and the nation. As a result, there should be a radical departure from primary education curricular that does not promote the development of a scientific mind. (A need for more than lecture / textbook teaching methods).

The Commonwealth Ministers considering ''education in a global era'' recognise that ''education is a liberating force with moral and spiritual dimensions as well as a contributor to social and economic development''. Thus education should produce thinkers rather than implementers; and education should be more holistic, dealing with all levels and with different approaches. (*Commonwealth SecretariatNewsletter* 2000).

The statements above demonstrate the diversity of beliefs of the purpose and functions of education.

However, you will notice that the main consensus in all the views is that:

* education is a powerful agent of change to an individual, community, the nation and even the world
* education is the vital key which unlocks treasures of a successful and fulfilling life
* education is a life - long enterprise for all
* education should be functional and relevant.

What this is suggesting about the purpose and function of education is that it is influenced by the beliefs and values of the individual, the community and the nation.

It follows therefore, that to the extent that those beliefs differ, the experiences of learners in the classrooms could be different. As a teacher, you would need to apply more than the ordinary conventional method of planning and delivering lessons in order to ensure both effectiveness and efficiency to achieve the purpose of education. In particular, teachers would need to ensure that all learners are reached with the learning contents.

4.2   The Right of Education for All: a Historical Perspective

Going down the historical lane, there are so many references indicating that teaching and learning (education) had been going on since 400B.C. with definite positive results assuring both individual's and national progress. Consequently, governments examine the moral and social values more seriously as a right for all people. Gradually they began to incorporate the ideas in official document. Here are some examples of such documented statements.

The British Magna Carta (The Great Charter) of 1215A.D. proclaimed the right of people to learning. This began a social revolution that created a landmark in the history of human rights.

In 1772 A.D. the United States of America, following the steps laid down by the Magna Carta, legalised education in their 'Bills of Rights'. It proposed that all who desire education should be given access at least at the elementary level.

The French, also recognising education as an instrument to social change which should be opened to all people made a declaration in 1789 A.D. titled "The Declaration of Rights of Man and all citizens'. The revolutionary document stated that 'the right of man to education is inalienable'. This meant that education for all men cannot be compromised.

In 1948, the advocacy for the right of all to education moved to a global status by the Declaration of Human Rights. In Article 26 of the document, the nations, signatories to it affirmed that everyone has the right to education. The section further recommends that education should be at least free, at the elementary (primary) education level.

You can begin to appreciate that from about the eleventh century A.D. primary education has been attracting attention. The trend of education for all even extended to Nigeria during the colonial era. Let us consider the following example.

The national decade plan of 1942 -1953 made provision for the extension of primary education facilities. Primary education was provided even in the villages in that period. Again, in the period 1955 -1957, the Universal Primary Education (UPE) scheme by the then regional governments was introduced to extend the right to education for all. Perhaps you have observed that in education, whenever quantity is pursued, the consequence is usually some losses in quality. This was the case with the UPE scheme. There were two main challenges as listed below.

- Acute shortage of teachers.
- Lack of instructional /learning materials.

In spite of these challenges, the UPE was re-introduced in 1976 on a national scale in Nigeria. This greatly increased the enrolment rate; and the teacher –pupil ratio in

primary schools deteriorated below standard. The situation also aggravated the acute shortage in the availability of learning /teaching materials. One of the steps taken to improve the education system was the publication of the first National Policy on Education in 1977. The publication of the policy was seen as a clear demonstration of the good intentions of the Federal Government of Nigeria to provide quality education for all in line with the Constitution.

In Nigeria, the legal document instituting education for all is the Constitution of the Federal Republic of Nigeria, schedule 18 of chapter 2; the constitutional objectives for education are stated in the following terms.

- Government shall direct its policy towards ensuring that there are equal and adequate educational opportunities at all levels
- Government shall promote science and technology
- Government shall strive to eradicate illiteracy and to this end, Government shall, as and when practicable provide:
  a.   free, compulsory and universal primary education;
  b.   free university education and
  c.   free adult literacy programme.
  d.   *(Federal Republic of Nigeria Official Gazette no 27. vol. 86. Lagos 5ᵗʰ May, 1999).*

You should know that similar notable effort was also being exerted throughout the world to expand education to all, at least at the primary education level. Again, as UNESCO observed, success recorded seems to be in terms of quantity more than quality. Enrolment rate increases, while facilities and other resources- including instructional / learning materials, qualified teachers and funds continue to decrease. The large number of pupils in the classes to a single teacher brings hardship to effective teaching and the inadequacy of materials such as textbooks and pupils' workbooks reduce the efficiency of the pupils to learn. This situation, according to UNESCO (1990), led to the following global realities:

- that there are still a large number of school age children out of school
- that many adults and children, majority being women and girls are functionally illiterate
- that more than one-third of the world's adult population have no access to new skills and technologies that could improve the quality of their lives and help them shape and adapt to social and cultural changes
- that there are threats of economic stagnation and decline
- that the rate of children who are completing school is still high; and
- that these problems constrained efforts to meet the basic learning needs of primary school children.

4.2.1 The World Declaration on Education for All: Meeting Basic Learning Needs

The global realities mentioned above motivated the need to find a solution to address the issues on a global basis strategically. So, in March 1990, a world congress on education was convened at Jomtien in Thailand. The congregation consisting of the world's foremost educationists agreed on the World Declaration on Education for All (EFA) with the caption: Meeting Basic Learning Needs. Nigeria participated and she is also a signatory to the Declaration. There are six specific goals for all the signatory nations to achieve. These are to:

- universalise access to education
- promote equity
- focus on learning
- broaden the means and scope of basic education
- enhance the environment for learning
- strengthen partnerships.
- *(UNESCO 1995).*

Many observers commented that 'for the first time in the history of education, many countries are committing themselves to making the goals of basic education attainable'. This is because the Education for All goals are strategically formulated having a framework for action to meet basic learning needs of all by all nations.

4.3 Primary Education within the Context of the National Policy on Education

This current National Policy on Education is the fourth edition published in 2004. The 1977 edition was reprinted in 1981, and revised in 1998. It was further revised to allow for some of the changes suggested by The World Declaration on Education. It features contemporary innovative ideas in basic education. It maintains that the national philosophy of education believes in education as an instrument for national development. Thus education at all levels shall be geared towards the following:

- Self realisation
- Better human relationship
- Individual and national efficiency
- Effective citizenship
- National consciousness
- National unity
- Scientific and technological progress
- The inculcation of the right type of attitudes and values for the survival of individual and the society
- The training of the mind in the understanding of the world around
- The acquisition of appropriate skills

- The development of mental, physical and social abilities which will equip the individual with competencies to live effectively and contribute to the development of the society.
- The development of the skills for life long learning
- The policy also re-affirms the formal structure of 6-3-3-4 system

According to this structure, the formal base for schooling is the primary education, although the Basic Education Act (2004) extends basic education to consist of 9 years-that is, 6 years primary and 3 years junior secondary schooling. In 2006, Government included linkage classes to public primary schools to cater for the 4 – 5 year old children.

Pupils enter the primary school at the age of 6 years in Nigeria and spend 6 years before transiting to junior secondary school when they are about 12 years. In those six years, the children are to be prepared for the formal education system. The primary education is the key to the success or failure of the whole education system. Can you now see why the focus is always on primary education? It is important that children leaving primary school should have confidence to demonstrate the following abilities.

Learn: that is, learning new things with the ability to relate them to their previous knowledge and experiences. Learning to learn.

- **Think creatively**: that means the ability to initiate an idea, develop it and present it logically to others to understand and appreciate.
- **Solve problem**: that means the ability to apply past knowledge, skills and experiences to novel or difficult situations and circumstances.
- **Reason abstractly**: that means attaining the higher form of learning capability. This is the ability to read and write, to analyse, synthesise, evaluate and appreciate acquired information from a variety of sources (EFA).

According to the UBE report, children finishing primary school should possess basic literacy and numeric skills. They should demonstrate a level of technical organisation skills. They should show by their behaviours and attitudes that they have acquired a measure of educational values which are expressed in the national goals of education.

The Need for Learning Materials in Primary Schools
Considering the expectations of the National Policy on Education, you can see that there will be need for new approaches to the various elements in the process. There is an old saying which is often quoted in media context that – ''you cannot solve today's challenges with yesterday's tools''. This is very true, as the usual teacher's ''talk and chalk'' method of the past can no longer meet the following challenges.

- Students' population explosion
- The need to satisfy the information thirst of a variety of learners

Haggis (1995) aptly captures the points when she writes that "the information explosions through the use of computers, internet and a host of other media and technologies have made the knowledge of an unprepared teacher to become obsolete. You need different learning materials to meet the needs of the various individual children in your classroom. You need to think of the materials, where to get them or how to make them if the need arises. Most importantly, you need to know how to utilise modern technologies appropriately. You also need, as a teacher to continually upgrade your knowledge.

5.0   ACTIVITY

1.   State four purposes and functions of education.
2.   What is the Nigerian constitutional stand point on education?

6.0   ASSIGNMENT

1.   Highlight seven (7) areas of focus of the National Policy on education.
2.   Referring to the learning needs of primary school children, justify the need for learning materials in schools.

7.0   SUMMARY

What you must have learned in this unit concerns primary education within the context of the National Policy of Education as the framework in the design and production of learning materials, activities or experiences. Design involves stages of planning and planning requires analyses of identified elements or factors in the process. The primary education environment is the education sector that we have focused on. In the next unit you will learn about the nature of primary school children and their learning needs.

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UNIT 2   THE CHARACTERISTICS OF PRIMARY SCHOOL CHILDREN

CONTENTS

1.0   Introduction
2.0   Objectives
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    4.1   General Description of Primary School Children
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    4.3   The Language Dimension of Individual differences
    4.4   The Dimension of Individual Needs
    4.5   The Dimension of Individual Ability
    4.6   The Dimension of the School Environment
    4.7   The Importance of Analysing Pupils' Characteristics
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1.0   INTRODUCTION

Do you remember what we said in unit one about design? Very good student! I know you are following the course. Yes indeed! Design involves planning and planning requires series of decision making. Your decisions are based on reports from analysis of elements and factors involved in the process of teaching and learning which could affect the outcome of the product(s) you design. The key element in the design of any teaching–learning activity is ''the learners'' with all the dimensions of their characteristics. So, in this unit we shall be examining some of these dimensions of children's characteristics.

2.0   OBJECTIVES

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

- describe the heterogeneous nature of primary school children, mentioning two groups of factors responsible for the differences
- explain the importance of considering cultural bias in effective classroom communication
- identify two points when explaining the relevance of the language dimension in children's characteristics
- recognize the two areas of need that affect the characteristics of young children
- Justify the importance of analysing the characteristics of learners in planning teaching–learning activities by stating at least six advantages to the teacher.

HOW TO STUDY THIS UNIT

Read through this unit carefully. Study the unit step by step as the points are well arranged.

NOTE: All Answers to Activities and Assignment are at the of end this Book.

3.0   WORD STUDY

Culture: - Refers to the attitudes, values, customs, benefits, language arts, and behavior patterns that characterize a social group or an individual.

Environment: - This means the surrounding, circumstances and influences that child experiences in the learning process.

4.0   MAIN CONTENT

4.1   General Description of Primary School Children

The word heterogeneous describes a situation consisting of many different types of people or things. It is the opposite of homogeneous which means one type. Primary school children are heterogeneous in nature. You cannot boast that you know all there is to know about them. The differences that exist among them (their heterogeneous nature) make it very important that you, as a teacher should learn more about their nature and the developmental differences that exist among them. According to the National Policy on Education (2004), primary school children are the young children who are between the ages of 6 -12 years.

Most of them have been registered into an organised educational environment called ''the primary school''. Unfortunately, some within the same age bracket are not in school but are out there on the streets. Primary school children have come from various locations. Some are from the villages in the rural environment, while some others are from the big towns in the urban environment. Still others are in areas that cannot definitely be described as rural or urban- examples are the nomadic children and those of the migrant fishermen. Some are gifted and talented (the exceptional children), while some others are physically challenged in one form or the other and would require special educational attention. These children are expected to be taught inclusively in the classroom. Why are there such great differences among human beings generally?

Psychologists explain that these are due to individual differences. These differences can be noticed on the play ground as well as inside the classroom; some of the

differences have been influenced by factors that are innate to the individual, while others are influenced by experiences within the environment.

For example, some differences that can be due to innate factors are as follows.

- The physical appearance of an individual
- The gender, whether boy or girl
- The display of strength and courage
- Temperaments and moods
- Intelligence and ability

Those that can be due to environmental factors are all the experiences and knowledge which an individual has acquired through interactions with the human and material resources in the environment. They are as listed below.

- Culture and ethic orientation
- Language spoken
- Parental socio-economic background
- Parental child -rearing practices
- Type of community / neighbourhood
- Type of school and the location where it is situated
- Peer groups influences
- Teacher's inter and intra –relationships
- Available learning materials etc

Both the innate and the environmental factors play important roles in shaping the characteristics of an individual. It is very important that you understand the implications of these factors influencing the pupils, so that you can plan appropriately. So how do all these factors influence your pupils, your lesson, or the design of learning materials? Let us explore five of the dimensions of differences – to see how they can affect the effectiveness of learning materials.

4.2   The Cultural Dimension of Individual Differences

You have learned in some of your education foundation courses that the people's values and aspirations are greatly influenced by their culture. *The Oxford Advanced Dictionary* gives several definitions of culture but one that is most relevant to this discussion states that "culture is the customs, and beliefs, art, way of life and social organisation of a particular country or group". A more relevant definition is given by Munck (2000) in his work titled, "Culture, self and meaning". He looks at culture from the psychological and the anthropological points of view. He thinks that culture can be grouped into two:

a.   the culture that is inside a person – in the private sphere of self
b.   the culture that is outside of a person-located in the public world.

He explains that by "inside" he means that culture refers to the ideas located in the mind and head of an individual, making us to form our own culture. While the cultural dimension he grouped as 'outside', he explains, is the culture that researchers look for in public life and in symbols, structures and processes that shape and constrain our behaviour. In summary, culture refers to the attitudes, values, customs and behaviour patterns that characterise a social group or an individual (Eggen and Kauchak, 1997).

The culture of your pupils can influence the way they accept the content of the learning material presented to them. For example, using pork to illustrate animal protein when discussing nutrition may sound alright to some people, but to the Moslem children it would be offensive. This cultural bias could interfere with the children's understanding of the concept being taught (Molenda and Heinich 1989).

Heinrich 1989, pointed out that complexities in cultural differences can even express itself in the choice of colour, signs and other visual representations. It is important that learners should be able to see the connections between learning contents and their culture, experiences and previous knowledge. Cultural biases can constitute a barrier to effective communication.

When communication fails, learning becomes ineffective. As a teacher, you need to guard against any barrier that could make your teaching ineffective. You should be aware and understand the cultural backgrounds of your pupils. Culture is an element of the factors that make up the personality of an individual; you cannot completely divorce an individual from his / her culture (Munck 2000). So, do not ignore it in the process of your design analysis.

4.3   The Language Dimension of Individual differences

The official language of Nigeria is English, by implication it is also the language for teaching and learning in educational institutions throughout the country. However, in accordance with the National Policy on Education (2004) the stipulated language of instruction shall be the mother-tongue or the language of the immediate environment for children from nursery to primary three classes. During this period (nursery classes to primary three), English Language shall be taught as a subject. From primary four, English shall progressively be used as a medium of instruction; while the language of the immediate environment and French are taught as separate subjects to conform to the National Policy. You and I know that in Nigeria, there are at least 55 different languages and at least 150 dialects. Most often the class teacher speaks a language that is different to nearly 2% of the children in the class. Thus, Nigeria can be classed as a multilingual nation, speaking English as a second language. To add to these complexities, you, the teacher have also learnt English as a second or third language. There is also an unofficial variety of the English Language called ''Pidgin'' which is gaining popularity among the school children.

Language, in all its formats, is central to communication. Through communication human beings connect to the world around them and learn. Some of the language formats are as follows.

- Words
- Concepts
- Gestures
- Sign and pictures
- (NOUN PED 433, 2009)

When these are used in instruction, they should be made very clear in order to eliminate the possibility of misinterpretation or misunderstanding through differences in perception and experiences. The language dimension of individual differences is an important factor when you are considering the characteristics of primary school children for the purpose of designing and producing educational activities or learning materials. This is so, because your aim is to help children to learn at their own level. You will need to communicate with them through a form of language. Therefore you need to guard against situations in which children could be confused through your use of language that is beyond the level of their understanding.

4.4   The Dimension of Individual Needs

All humans have the basic fundamental needs of nutrition, physical and psychological comfort of safety, love, belongingness and self esteem (Ajaoku, 2006). Needs here, are considered to be those necessities required to make an individual happy and continue to survive. For children, these needs are expected to be satisfied in order that they may develop into a well adjusted holistic personality. You are required to be able to identify the various needs which have been grouped into:

1.   physiological needs and
2.   psychological needs

You are required to understand the influence they have on the developing child and his / her learning capabilities.

1.   **Physiological needs**. These are generally required by all human beings and may vary in their prominence and expression according to circumstances, maturity, personality and endowment.

      They are as listed below.
      a.   The need for food and safe drinking water (a hungry man is an angry man).
      b.   The need to be active, and to rest. You should be able to provide an appropriate balance.
      c.   The need to be healthy. A healthy child is active and motivated to learn.

d.   The need to eliminate body waste. Provide opportunity to go to toilet for the children. They cannot concentrate if they are under any form of discomfort.

e.   The need to be properly housed and protected. The feeling of security and safety boost children's personality and they are happy. When they are happy their natural tendency to be curious and learn is promoted.

2.   **Psychological needs**. These encompass the need for permission to become an individual and be happy. They are as listed below.

* the need for affection
* the need for belonging
* the need to achieve and be recognised
* the need for freedom / independence
* the need for status, self –identity and self esteem
* the need to learn and interact with others in the environment
* the need to communicate and be given the opportunity for self expression.

4.5   The Dimension of Individual Ability

The dimension of individual ability is a critical aspect of this course. This is because the reason for designing and producing learning materials is basically to bridge the gap in the ability of the learners. More importantly, it is also to ensure that children are able to learn optimally at their own pace and in the way most suitable to them.

However, if you consider a typical primary school class, you will observe that the differences in ability are not adequately promoted. For example, the teacher follows the primary school curriculum strictly, teaching all the children at the same time using the same methodology.

At best the children could be grouped by their abilities (i.e. 'A', 'B', or 'C' streams). The textbooks are the same for every child; the evaluations (examinations) are the same focusing more on verbal academic subjects and are not catering for the gifted /talented in non-verbal subject areas. Although the National Policy on Education prescribes continuous assessment as a measure to address the issues of differences in ability, there is still a big gap in the effective implementation of continuous assessment. The reasons are as follows.

* Teachers are still not trained enough to handle the assessment of the affective and psychomotor domain of children effectively.
* Standardised tests are not available.
* Very high teacher–pupil ratio (1:50) in most cases makes it difficult for the teacher to provide individual attention.
* Some teachers are not familiar with and competent in the different assessment types.

Understanding the characteristics of your pupils is the very first step in planning and implementing an effective teaching–learning process.

So far, we've been discussing the various dimensions that can affect or influence the characteristics of children in the primary school. The knowledge you have gained on the characteristics of the children, can only be worthwhile, if you can integrate that knowledge to ensure children learn effectively. That brings us to another influencing factor we need to consider, the school environment.

4.6   The Dimension of the School Environment

The Advanced Learners' Dictionary defines an ''environment'' as a predetermined surrounding, circumstances and influences. While educational is defined as an adjective of the word education, having connection with the systematic training and instruction in schools, colleges etc. You can describe primary school as predetermined surroundings where young children are being exposed to teaching and learning activities.

The learning process involves interactions. In the school environment, the resources that will influence the child's development and learning are as follows:

1.   The curriculum
2.   The teacher, who must be properly trained to carry out his/her professional responsibilities, his/her teaching styles and general disposition.
3.   A classroom atmosphere that is conducive. This means a classroom where there is genuine love and caring among all members of the class.
4.   The class teacher, who shows a thorough awareness of the individual differences in the class. He/she must also be able to demonstrate responsive teaching which will be evidence of accommodating different learning styles. This will promote effective class management.
5.   Peer group influences: peer group influences are very common in schools. A peer group is a small group of children usually of same sex in the primary school. It has been observed that every normal child in the school identifies with a small group, often of the same sex, age and social class background. The characteristics of children in the school and sometimes even at home can be greatly influenced by the characteristics of the peer group.

This is because individuals in the group have stronger allegiance to their leader and other members of the group than they would have to non members of constituted authority. (Eggen and Kauchak 1997).

4.7   The Importance of Analyzing Pupils' Characteristics

The principle behind education for all is to ensure that all children have equal learning opportunities. The goals of equal learning opportunities may not be realised if children are lumped together and taught without regard to their individual differences. By studying and analysing the pupils' characteristics you will be able to perform the following competencies.

- Understand each child's nature and needs.
- Build a good relationship between you and your pupils. This will enhance effective classroom management. There would be greater mutual respect.
- Select or develop learning materials that are relevant and appropriate. This will increase pupils' motivation and promote learning.
- Involve the children in activities that will promote their individual development. This will give them an opportunity to excel at their own pace and rate.
- Be more creative in your method of teaching
- Build a community of learners where individual's dignity is respected.
- Ensure children are able to identify with content and materials; this will make things easier for pupils to learn.
- Ensure proper analysis of language dimension as this helps to remove (eliminate) the possibilities of confusion and misunderstanding.
- Ensure it is possible to enjoy cost benefit because the designed products will be relevant, appropriate and usable.
- Contribute to the achievement of the EFA goal of equal opportunity for quality education for all (EFA 2007).
- Feel satisfied professionally.

5.0   ACTIVITY

1. Describe the heterogeneous nature of primary school children, mentioning two group factors responsible for their differences.
2. Identify two points when explaining the relevance of the language dimensions in children characteristics.

6.0   ASSIGNMENT

1. Enumerate the needs of the child under the two categories of human needs.

7.0   SUMMARY

In this unit, you have learnt the characteristics of primary school children from various perspectives. In the process, four dimensions of differences most pertinent to this course were taught. In the next unit you will be looking at what children learn in school as we look at the National Curriculum for the primary school.

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UNIT 3   THE PRIMARY SCHOOL CURRICULUM

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1.0   INTRODUCTION

In unit one, you examined primary education within the context of the National Policy on Education. In unit two, you explored the characteristics of primary school children. By so doing, you are able to see that all children need to develop, grow and learn at their appropriate stage and at their own pace. You are able to understand that when you plan any learning activity or prepare materials for your learners, your primary aim should be to make the learning appropriate and relevant for your learners to understand. So what do you teach the children? What are they doing in school? What do you want them to learn?

In this unit, you are going to examine the curriculum to answer the questions and to see how it makes it easy for you to select learning contents.

2.0   OBJECTIVES
    By the end of this unit, you should be able to:

- define curriculum indicating the link to national implementation of educational goals and objectives in three cogent points
- mention at least three types of curriculum describing their features and relevance to teaching and learning
- identify four innovative features of the Universal Basic Education Curriculum
- describe the structure of the national primary school curriculum using one of the core subjects as an example

- explain by stating four main points, the implication of the knowledge of the curriculum in the design and production of learning materials.

HOW TO STUDY THIS UNIT

Read through this unit care.

Study the unit step by step as the points are well arranged

NOTE: All Answers to Activities and Assignment are at the of end this Book.

3.0   WORD STUDY

i.   **Curriculum:** This refers to the teaching, learning and assessment materials available for a given course of study.
ii. **Syllabus**: This is a plan that states exactly what student at a school or college should learn in a particular subject, within a particular year, e.g. "Mathematics Syllabus", "Social Studies Syllabus" etc.

4.0   MAIN CONTENT

4.1   Definition of Curriculum

Every definition of the term ''curriculum'' which has been put forward by nearly all curriculum experts agrees that the idea has its root in the Latin word "Curare'' which means ''race course'' or ''to run a course''. The OxfordAdvanced Dictionary defines curriculum as the subjects studied in schools. In a wider context, it is defined as a compilation of programme of activities which has been prepared for a group of people or an individual.

According to Kelly (2009) cited by *Wikipedia* (2010), curriculum means two things.

a.   The range of courses from which students choose what subject matters to study and
b.   A specific learning programme.

She suggests that in the latter case, the curriculum collectively describes the teaching, learning and assessment materials available for a given course of study (*Wikipedia* 2010).For example, the NOUN/ NTI course material is a type of curriculum.

Wilson (2010), citing Olivia (1997), listed a multiple of definitions in her ''curriculum index'' as follows.

- That which is taught in school
- A set of subjects
- Contents of a book

- A programme of studies
- A set of materials
- A sequence of courses
- A set of performance objectives
- A course of study
- Everything that goes on within the school, including the extra class activities, guidance and interpersonal relationships.
- Everything that is planned by school personnel
- That which an individual experiences as a result of schooling (Olivia pg. 4. 1997)

You can easily deduce that the curriculum is the ''blue print'' for the implementation of the National Philosophy and Objectives of Education. It is the guideline to achieving the objectives planned for education in a country, in a school or an organisation. It provides a link between the goals and objectives of education and the implementation strategies of the educational processes.

Obanya says (2001); it is one of the vital inputs to the quality dimension of the education provision for citizens of a nation. The curriculum is designed to be responsive to both the individual and societal needs. It is designed to be comprehensive, covering all aspects of the development of the child. A good curriculum is adoptable to changing times, changing needs and changing conditions. The society is not static. Educational programmes should evolve to suit the needs of the society and the individuals. There are always new things to learn.

4.1.1 Types of Curriculum

In your course, ''Curriculum Theory and Practice'' you learned that there are different kinds of curriculum. You also learned that curriculum design is influenced by the philosophical, psychological and social orientation of the group, the individual, the nation or the institution for which it is being designed. Some curriculum experts have listed curriculum types as follows.

- The Written Curriculum. This curriculum gives the basic lesson plan to be followed. It includes the objectives, the sequences of the content and suggestions of materials to be used. This is sometimes referred to as the lesson plan. It provides the basis for accountability of the teacher's effectiveness.
- The Operational Curriculum. It is what is taught by the teacher and how it is communicated. This includes what the teacher teaches in class and the learning outcomes for the students
- The Nnull Curriculum. It consists of what is not taught. Even though it might be necessary for pupils to learn it.
- The Extra Curriculum. It is the planned experience outside of the specific educational sessions. Sport or clubs – activities are in this category

- The Formal Curriculum. It is what Ehindero (1994), classified as the official curriculum. It represents the government's laid down proposed and planned guidelines to promote the implementation of the national aims and objectives for education. Molan, Oige. (2010), observed that official/formal primary school curricula had similarities throughout the world. They are often not teacher–friendly because they are written in coded official language that would need further analyses for clearer understanding. They are nearly always rooted in the National Policy on education of a nation. You will find the Nigeria's official curriculum for primary school in the National Policy on Education (NPE 2004) document page 15, section 19.

- The Hidden Curriculum. This type of curriculum is sometimes referred to as the ''unofficial'' curriculum. Ehindero (1994) explains that this type of curriculum is the unplanned for and rather learning experiences which serve to reinforce or complement the planned or intended experiences. Wilson, (2010) in his own explanation considers that the hidden curriculum embodies the learner's cumulative positive and negative strategies to cope successfully with the huddles imposed by the official or planned actual curriculum. In this regard, the hidden curriculum becomes the learner–invented or structured system of different (i.e. hidden) activities some of which may undermine the intentions of the formal curriculum which they are meant to complement. Examples of the hidden curriculum would include messages and lessons derived from the attitude of the teacher, the organisation and general atmosphere of the school. Other factors included as examples of the hidden curriculum are:
  - the community's indigenous stimulation and discipline practices
  - the norms and values of the surrounding, society
  - the influence and impact of both the print and electronic media are all classed as hidden curriculum in the educational processes.

- The actual curriculum. This is more or less a reality curriculum. It is teacher–friendly. This is because this type of curriculum has been re-planned with substantial input from those who will implement it. These implementers are teachers, parents, instructional material developers, the community etc. They are often referred to as the   stakeholders. The actual curriculum reflects realities of available human and material resources needed for effective implementation. The current primary school curriculum modules are examples of actual curriculum in Nigeria. Wilson, (2010) also describes the actual curriculum as the curriculum-in-use. This is the actual curriculum delivered and presented by the teacher.

- The syllabus. This is a plan that states exactly what student at a school or college should learn in a particular subject, within a particular year. For example, ''Social Studies syllabus'', ''Mathematics syllabus'', etc. The contents of the syllabus are derived from the written or official curriculum. The syllabus is closely related to the goals of the National Policy on Education. The programming of curriculum modules is usually drawn from the syllabus of the particular subject.

- The spiral curriculum. This is a fairly recent word being used when discussing curriculum. Generally, a spiral curriculum is a kind of curriculum in which

contents are recurrent and gradually developed with level of difficulty. Most contents of the actual curriculum or the curriculum being used by teachers in the classroom are spirally designed. That means the contents start from basic (simple) and gradually build up to the most difficult (complex) see Table 3.1.

Table 4.1:   Sample of Spiral Arrangement: Science Lower Primary Classes 1- 3

Primary One Science and Technology	**BASIC ONE** **Theme 1: You and Environment** Exploring your Surrounding **Theme 2: Living and Non Living Things** Soil Air Water **Theme 3: You and Technology** Concept of Technology Colour (Identification) **Theme 4: You and Energy** * Simple Machines (identification)
Primary Two Science and Technology	**BASIC TWO:** **Theme 1: You and Environment** The Senses Harmful Substances **Theme 2: Living and Non Living Things** Plants Animals The Human Body Soil Types Air (Flotation) Water Flotation **Theme 3: You and Technology** Clay Colour (uses) **Theme 4: You and Energy** * Simple Machines (Uses)
Primary Three Science and Technology	**BASIC THREE** **Theme 1: You and Environment** Measurement **Theme 2: Living and Non Living Things** Plants and Animals Soil Air (in motion) Water Air (Flotation) Water Flotation **Theme 3: You and Technology**

	Colour (importance)
	Drawing
	Theme 4: You and Energy
	* Forms of Energy (Light, Sound)
	Source: *NERDC (2006) Basic Science nd Technology Curriculum Module* (pg. x-xii)

One thing we can never really overemphasis is that whatever type the curriculum, the most important point is that a curriculum must be relevant, appropriate and user friendly. Ehindero (2009) stressed that the major characteristics of any curriculum are relevance, appropriateness and functionality. A curriculum is designed to meet the needs and demands of the time for the target. It is designed to accomplish the goals and aspirations of the target.

In this regard, curriculum is often subjected to review, sometimes every five years. The usual process of curriculum development demands extensive consultation of interest groups referred to as stakeholders. The curriculum designer/ developer can base the design on a tested curriculum model that is suitable for the nation and practicable in terms of implementation.

The National Policy on Education (2004) and the Universal Basic Education (UBE) Act of 2004 both provide for 6 years of primary and 3 years of junior secondary schooling. The UBE Act, 2004 (p. 16) stipulates that:

- "Every learner who has gone through nine years of basic Education should have acquired appropriate levels of literacy
- Numeracy, manipulative skills, communicative and life –long skills
  as well as ethical, moral and civic values needed for laying a solid foundation for life –long learning as the bases for scientific and reflective thinking ". (UBEC, 2008).

If you critically analyse this broad objective, you will realise that there is need for an enriched curricular content at the pre-school, primary and at secondary levels of education.

4.2   The National Curriculum for Primary School

The National Primary School Curriculum Modules published in 2005 by Evans Brothers (Nigeria Publishers) Limited is the outcome of an extensive revision of the National Curriculum for Primary Schools, which prescribes the minimum content and assessment standards, for primary education in Nigeria. The revision process followed a systematic approach that validates the outcome as standard and innovative for primary education in Nigeria.

The systematic approach which was adopted to review and redesign the new primary school curriculum is considered as most meaningful because in applying this approach to the design of the curriculum, special emphasis is placed upon the need to:

- improve learning in primary school children
- assess and evaluate learning and teaching more effectively in terms of specific objectives
- adapt and adopt effective use of human and non human resources to improve learning.

What is obvious through this emphasis is that teachers require the ability to adapt themselves to new methods of teaching and modes of organisation which are very different from their traditional roles. As a result, there is departure from the previous curriculum practice. Many initiatives, both at the global and national levels, together influence the innovation that is reflected in the current national curriculum for primary school.

4.2.1 Innovation in the National Basic Education Curriculum

As already mentioned above, many global and national policy initiatives have influenced the innovation observed in the current curriculum of primary education. The Table 3.2 below summaries the policy initiatives that have influenced innovation in the primary school curriculum

Table 4.2:   **Summary of Innovative Influences on the Primary School Curriculum since 1990**

Global Influences	National Initiatives	Innovative Curricular Outcome
Education for All (EFA) Jomtien 1990	Universal Basic Education (UBE-1999) Revision of the National Policy on Education	Focus on learners life-long learning Revised policy 2004 9 years continuous basic schooling
Dakar Framework of Action 2000	UBE Act 2006	UBE curriculum reviewed and restructured.
Millennium Development Goals (MDGs)	National Economic Empowerment Development Strategies (NEEDS) State Economic Empowerment Development Strategies (SEEDS)	Information and Communication (ICT) introduced Integration of Basic Education in Quaranic schools Feature of both academic and vocational subjects to give comprehensive subject delivery

	Local Economic Empowerment Development Strategies (LEEDS)	Core compulsory subjects and electives offered
		Continuous assessment of pupils is the standard
		Certification on after 9 years (i.e. end of JSS)
		Adoption of modular structure by subject and level through the 9 years basic schooling

Other distinguishing features of the new curriculum are mentioned below.

The nine years of continuous schooling is divided into three component parts:

- three years of lower basic education curriculum (i.e. primary 1-3 classes)
- three years of middle basic education curriculum (i.e. primary 4-6 classes JSS 1-3classes)
- This is done to allow for proper planning and alignment of curriculum contents in such a way as to make learning sequencing simple, logical and practical.
- Programming of the national syllabus in each subject into module preparatory to efficient and effective teaching and the correct application of continuous assessment practice
- The inclusion of modern teaching techniques and continuous assessment into teacher education curriculum
- Comprehensive in-service training for all primary school teachers on the use of modern teaching methods, the use of the curriculum and the correct application of continuous assessment. The National Teachers' Institute in collaboration with The Teacher Education for Sub-Saharan Africa had commenced on the continuous and comprehensive in-service training of teachers since 2009.
- The core subjects in the syllabi which have been programmed into modules are presented below: Table 3.3.

Table 4.3:   Structure and Core Subjects of the New 9 – Year Basic Education Curriculum

BASIC EDUCATION CURRCIULUM LEVELS	CORE/COMPULSORY SUBJECTS	ELECTIVES
Lower Basic Education Curriculum (Primary 1-3)	1. English Studies 2. One major Nigerian Language (Igbo, Yoruba or Hausa) 3. Mathematics 4. Basic Science and Technology 5. Social Studies 6. Civic Education 7. Cultural & Creative Arts (CCA) 8. Religious Studies (CRS or IS) 9. Physics and Health Education (PHE) 10. Computer Studies/ICT	1. Agriculture 2. Home Economics 3. Arabic Note: Must offer 1 elective but not more than 2
Middle Basic Education Curriculum (Primary 4 -6)	1. English Studies 2. One major Nigerian Language (Igbo, Yoruba or Hausa) 3. Mathematics 4. Basic Science and Technology 5. Social Studies 6. Civic Education 7. Cultural & Creative Arts (CCA) 8. Religious Studies (CRS or IS) 9. Physics and Health Education (PHE) 10. Computer Studies/ICT 11. French Language	1. Agriculture 2. Home Economics 3. Arabic Note: Must offer 1 elective but not more than 2
Upper Basic (JSS 1-3)	1. English Studies 2. One Nigerian language (Igbo, Hausa, Yoruba) 3. Mathematics 4. Basic Science 5. Social Studies 6. Civic Education 7. Religious Studies (CRS or IS) 8. Cultural & Creative Arts (CCA) 9. Physical & Health Education (PHE) 10. French Language 11. Basic Technology 12. Computer Studies/ICT	1. Agriculture 2. Home Economics 3. Arabic 4. Business Studies Note: Must offer 1 elective but not more than 3

Source: NERDC (2007) *The 9-Year Basic Education Curriculum at aGlance.* **Lagos: NERDC Press.**

4.2.2 The Structure of the National Curriculum

By translating the core subjects in the curriculum into modules, the designers have simplified a major aspect of the teacher's duties i.e. that of sequencing and work plan for the session. Some people call this plan ''Scheme of Work''.

If you have not seen the Primary School Curriculum Modules, ask for a copy from the Head Teacher of the school in which you teach. In fact, as a primary school teacher, you should buy yourself a set (i.e. lower primary classes 1-3 or upper primary classes 4-6). Anyhow, in order to follow clearly the description of the structure of the curriculum module, see Table 3.4.

Table4.4:   Summary of Social Studies Curriculum for Primary Five

S/N	THEMES	TOPICS
1.	Family	Other people in the family; Members of the family and how they relate Obligations of other members of the family
2	Culture	Unity in culture diversity Meaning of the words culture, diversity and unity Common customs and traditions Marriage: customs and practices. Steps in selecting marriage partner Roles played by families and others Consequences of unhealthy, marriage practices Responsible parenthood: Characteristic of responsible parenthood regarding marriages Problems of parenthood Traditional and modern marriages: Features of traditional marriages Traditional marriages: advantages and disadvantages Feature of modern marriages Christian marriage Muslim marriages Marriage by ordinance Religion Types of religious practices Meaning of religious intolerance Problems of religious intolerance Controlling religious intolerance in development: Ways of controlling religious intolerance vii. Roles of religious bodies in development; * Contribution of each of the major religious in development

Source: *National Curriculum Module Social Studies* (**NERDC 2006, page xi**)

Notice the spiral nature as pointed out in the table. Now, for the example of the full structure, let us select theme 2 Culture; under this theme let's select lesson one which is the introductory lesson to the theme. The topic is unity in culture diversity. There are two sub topics.

a.   Meaning of the words ''culture'', ''diversity'' and ''unity''.
b.   Common customs and traditions

Now let's move on to see how we can follow the development of the topic referring to the structural presentation of the topic in Table 3.5. Table 3.5 is a sample of the curriculum. Notice that the page is divided into nine columns, marked (a) to (i). The following explains the significance of the columns for your understanding. You should continually refer to Table 3.5 for guidance.

Table4. 5   Primary 5 Social Studies: First Term

Module	Objectives (Stated in terms of what every pupil should be able to do at the end of the module)	Contents (Breakdown of content into separate units)	Teacher's Activities (that will lead to the achievement of the objectives)	Pupils' Activities (that will lead to the achievement of objectives	Teaching / Learning Aids	Evaluation Guide (stated in terms of what the teacher will assess the pupils on at the of the module)	Suggested Assessment Techniques	Suggested Period
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Immunity in cultural diversity 1. Diversity in language	List languages spoken in the area.

Suggest how we should treat those who speak languages different from ours

State the official language used in Nigeria and say why it is | Languages spoken in the area – different Nigerian languages: Hausa, Igbo, Yoruba, Efik, Nupe, Ebira, Izonetc .

How to treat those who speak languages different from ours – accept them: try to understand them; help them communicate | Guide the pupils to list the languages spoken in the area. Guide pupils to suggest how to treat those who speak languages different from theirs.

State and discuss with pupils the official language of Nigeria

Provide books, | 1. Find out and list the languages spoken in the locality

Discuss how we should treat those who speak languages different from ours

3. Find out facts about the three main Nigerian languages | Pictures Resource Reference books Textbooks Magazines | Mention the language spoken in their area State two ways of treating those who speak languages different from their own

3. Name the official language of Nigeria | in/re, ww

cd, sug.

in/re, gd | 1 week |

	the official language	with others; protect them from unfriendly attitude of those who do not understand their language; try to learn their language.	magazines and other materials for pupils to read on the topic.	and hold a debate using one of the languages (Hausa/Igbo/Yoruba)				

Column (a) – The topic from the module for example, under the theme culture, a topic: ''Unity in Diversity'' has been selected. This is a rather wide topic for one week's lesson. So it has been subdivided into ''Unity in Diversity part I''- i.e. diversity in language and ''Unity in Diversity part II'' -i.e. diversity in customs and traditions. We will be focusing on diversity in language which is one unit or a lesson.

Column (b) – This contains the objectives. The objectives describe the knowledge the pupils will gain, or the skills they will acquire after the teaching and learning experiences of the unit in the module. The objectives are stated in behavioural terms, indicating the changes in behaviour that are expected in the pupils or what we expect the pupils to be able to do at the end of the teaching /learning session of the unit /lesson of the module.

Column (c) – This is the content. In this column the content has been broken down into separate units. This is sequencing the topic further to make lesson planning steps easy. More importantly, by sequencing the topic, the learning steps are made manageable for pupils to remember and apply in their daily living. The teacher is also able to source for appropriate learning materials which are specifically relevant to the topic. The content is important to the achievement of the objectives.

Column (d) – This column describes the teacher's activities. This suggests what the teacher should do to lead the pupils to achieve the objectives. You need to apply great thought to this column because that is where you can demonstrate creativity.

Column (e) indicates ''Pupils' Activities''. Here, there are set of suggestions to motivate and lead the pupils to achieve the objectives. You may need to design a game or other materials for effective learning. On the other hand, you may wish to plan group activities that will engage the pupils in self learning.

Column (f) –Teaching Learning Aids. Here you are given ideas of materials and objects you, as the teacher, can integrate into your lesson to help the pupils learn effectively. How you arrange, organise, integrate and utilise them is critical to their usefulness.

Column (g)–Evaluation Guide. You should note that the assessments are stated in line with the objectives that are set at the beginning of the lesson. These are the specific tasks or behaviour the pupils should be able to perform at the conclusion of the lesson.

Column (h) – Suggested Assessment Techniques. These are the suggested instruments to be used for assessment. That means the method by which you intend to observe or detect and measure the extent of success. The figure stands for the number of activities to be assessed (see Appendix 13 for the abbreviations and their meaning).

Column (i) indicates the ''Period''. This is suggesting the time frame for completing the topic during the term.

4.4   Implications for the Design and Production of Learning Materials

Learning materials are designed and produced with a purpose and often with multiple of objectives. A ready example of the purpose for designing and producing a particular learning material could be to broaden and extend the field of experiences of the learner/learners. In this particular case, the designer will be expected to select the curricular content and structure it into meaningful sequence in order to achieve the objectives. The National Primary Education Curriculum and the structural presentation of the subject themes and topics is a good starting point. In order that it may be easy for you to reference, we have presented some of the benefits of the curriculum to learning materials development in the following list.

- Curricular implications to learning materials
- It provides easy selection of content.
- It provides general overview of range of pupils' previous experiences and knowledge.
- It summarises the context in which the designed product will be used.
- It provides a map for curricular integration.
- It provides a common ground for the producer and the stakeholders (i.e. teachers, pupils and the government) to interact.
- It widens the creative scope of the learning materials designer.

The relationship between the planning and development of curriculum is similar to designing and producing a learning package /learning materials. They are both gradual and sequential process of actualising or implementing the nations or school's goal and objectives into effective learning experiences for the pupils. The main rationale is to help learners to learn effectively. In subsequent units, the practicality of this rationale will become clearer.

5.0   ACTIVITY

1.   Mention at least three types of curriculum describing their features and relevance to teaching and learning.

2.   Identify the curriculum index as opened by Wilson (2010).

6.0   ASSIGNMENT

1. Identify four (4) innovative features of the universal basic education curriculum.

7.0   SUMMARY

In this unit, you have been able to define the term, curriculum. You are able to recall the link between national goals and objectives with the formal curriculum. You can now identify some innovative features of the Universal Basic Education Curriculum. More importantly, you can deduce that the design and production of learning materials follow similar systematic process to achieve success.

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UNIT 4   TEACHING AND LEARNING IN PRIMARY SCHOOLS

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                  4.1.1 Teaching Effectiveness
                  4.1.2 The Multiple Responsibilities of an Effective Primary School Teacher
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                  4.3.1 The Benefits of Assessmentto Design and Production of Learning Materials
5.0   Activities
6.0   Assignment
7.0   Summary
8.0   References

1.0   INTRODUCTION

In unit 3, the primary school curriculum was examined. You observed some innovative ideas which have been integrated into the curriculum to enrich it. You were also exposed to the structural components and how they relate to your practical work in the planning of your scheme, lessons and assessment techniques. You were also taught that curriculum design and the design of learning materials share similar process. In this unit, you are going to consider teaching and learning in the classroom which will lead you to the designing of learning materials.

2.0   OBJECTIVES

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

• identify five critical elements of good teaching
• suggest five ways to achieve effective teaching
• Explain the pre-requisites to the decision to improve learning.

HOW TO STUDY THIS UNIT
Read through this unit care. Study the unit step by step as the points are well arranged

NOTE: All Answers to Activities and Assignment are at the of end this Book.

3.0   WORD STUDY

Teaching: This refers to the knowledge, beliefs, attitude and especially behaviours and skills teachers employ in their work with learners.

Pre-test: This is an assessment carried out at the start to check whether everyone can do the task so that you can move quickly on to the next stage.

4.0   MAIN CONTENT

4.1   Definition of Teaching Effectiveness

A simplistic definition of teaching could be ''the profession of those who teach''. You can also define teaching as the art of passing on one's knowledge to another or to a group of people. However, when you consider the extent that each national government goes in planning and organising an effective educational system, you will begin to see that teaching is more than just passing on your knowledge to another.

Epstein (2007) says "Teaching is the knowledge, beliefs, attitudes and especially the behaviours and skills teachers employ in their work with learners'. However for this course, we can synthesise most meanings of teaching that come to mind and say that: teaching is an intentionally designed plan to integrate knowledge, content, strategies, activities, teaching–learning styles to make learning occur in the learner.

4.1.1 Teaching Effectiveness

Good teaching is considered the key to learning and ''learning'' is the ultimate goal of all teaching episodes. All the same, learning is not an activity that anyone can undertake for another. It is a personal and private desire and effort of the individual; it requires self motivation and readiness on the part of the learner and creativity on the part of the teacher. What then can the teacher do to ensure teaching effectiveness and make the pupils to continue to enjoy learning? Indeed, how do children learn?

In the next unit, answers to these questions will be provided more to you. Perhaps, a quick reminder of the multiple responsibilities of a teacher will help in clarifying the issues surrounding teachers' effort towards achieving effectiveness both in teaching and in their pupils learning.

4.1.2 The Multiple Responsibilities of an Effective Primary School Teacher

Primary School teachers are considered as generalists. This means they are expected to teach all subjects in the primary school curriculum. This immediately raises the issues of knowledge and competence in handling some of the subjects. Therefore, first and foremost primary school teachers should:

- have a good foundational knowledge of both the core and elective subjects in the curriculum
- be able to develop schemes of work and lesson plans in line with the recommended curriculum objectives
- possess a good knowledge of the characteristics of the pupils in order to facilitate learning through relationship and understanding in the classroom and within the school environments
- be able to organise, arrange and integrate experiences and resources so that learning can take place most conveniently and successfully
- be able to develop and foster social abilities with appropriate skills to enable the optimum development of children
- be able to assess and evaluate the pupils, the content, and their own teaching method to confirm teaching–learning effectiveness.
- be able to prepare pupils to have confidence in participating in the various selection/competitive tests in the system
- be able to link pupils' knowledge and experiences to previous learning and seek ways to encourage further learning
- be able to intentionally challenge and inspire pupils in order to deepen their knowledge and understanding; and finally and by no mean the least
- be able to apply creativity to select, improvise, or fabricate appropriate materials to stimulate, motivate, improve, enhance or enrich his/her pupils' learning

These responsibilities can be summarised in UNESCO (1995), quoting a student teacher, that a good teacher is one who helps to build the pupils' character and not destroy it. He/she is someone who takes time to find out challenges facing students, which interfere with their performance. In addition, a good teacher, having discovered pupils' challenges or weaknesses will deliberately and intentionally design strategies or materials to ensure that pupils attain the ultimate goal of learning. That is, self reliance/self long learning.

i.   Building pupils' character to attain their ultimate goal
ii.   Conducting readiness counseling session to help children learn
iii.   Organising, arranging, integrating experiences to help children
iv.   Coaching pupils to pass competitive examination

4.2   Achieving Effective Teaching-Learning in the Primary School

One of the objectives of this course is to gradually lead you to apply the principles and practice of instructional design to achieve an effective teaching learning episode. You will learn more about principles of instructional design in Module 2.

At the classroom level, instructional design is synonymous with the selection arrangement and use of learning resource materials in the promotion of effective learning. The emphasis is not just on learning but on effective and permanent learning. For this reason, you shall be examining three essential concepts. These are:

- learning for understanding
- learning to remember and recall
- learning for application (use) or transfer

1. **Learning for understanding**: to learn by understanding children need and to be clear of the points you are exposing them to. The points need to relate to past experiences of a contrived experience. Contrived experience means that you have used methods close to reality to encourage the children relate to the point. The need is to see that they are applicable to real life. Children, particularly at the nursery and primary schools understand more through concrete experiences.

2. **Learning to remember**:to remember and recall what is learnt, children need to see the importance of what they are learning in relation to reality and what they already know. Learning must be meaningful to be remembered. Therefore, it is important that you structure the learning experiences in a manner that will enhance understanding. What this means is that in planning your lessons, you should be able to answer the following questions adequately.

   a. Why are the children having the learning experience?
   b. What is it they are supposed to be able to do at the end of the lesson?
   c. How can I link the new experience to their previous knowledge and experience?
   d. How will I ascertain that the children have successfully learned?

   When you have answered the questions successfully for any learning activity you planned, the chances of remembering are very high. The more meaningful the learning experience, the greater the chances of remembering.

3. **Learning for application (use/transfer):** the ultimate learning goal is application. We teach so that the children will learn, change/modify their behaviour. But above all, so that they will be able to apply the experience they have gained, and that will help them to cope effectively with novel situations at a later time. This then is the true benefit of learning.

Some learning can be described as mere memorisation. This form of learning can be observed in the public primary schools across the country. Being able to memorise a new word and reproduce it correctly during a dictation lesson, does not mean that the child knows the real interpretation and usage of the word. If the child cannot apply the word in his/her everyday communication correctly and appropriately then the child has not yet learnt the full concept of the word. There should be a link between learning and the reality of everyday living; otherwise that learning has no value to the learner. Memorisation without understanding is partial learning. Learning theorists such as Gagne (1965) considered this form of learning as signal learning and he placed it at the lowest of his hierarchy of types of learning. (See Table 4.1)

Table 4.1:   Gagne's Hierarchy of Pre-requisites in Learning

Robert Gagne's types of learning	Implications to classroom learning or instructional design
Level 7: Problem solving	The ultimate goal of learning. involves understanding and ability to combine principle that can be applied to variety of situations.
Level 6: Principles	Chains of concepts learnt. Information that leads to knowledge. Encourage individual and group activities that require , critical thinking and creativity
Level 5: Concepts	It involves being able to identify objects, persons, events and experience from which to select. You should give variety of examples. Give learners opportunities of exposure through their senses.
Level 4: Multiple discrimination	It involves giving several examples or illustrations to broaden learner's perception and gives wider base to make appropriate choices.
Level 3: Verbal association or chain	It involves the establishment of verbal links. Remove every possible confusion or misconception. Known to unknown
Level 2: S-R Connection	It involves reinforcement to voluntary responses. Plan for stimulation, reinforce to encourage continuity to desired goal
Level 1 Signal learning	The lowest but foundational provide materials that will help to build /further the learning episode.

Adopted from *(Ngwoke 2004): School Learning: Theories and Application pg. 11 based on Gagne (1965)* **Statements of Pre-requisites in Learning.**

Reflecting on Gagne's hierarchy of learning, it means that until information is processed to the point where the learner can use the ideas or principles in a problem–solving situation, that learning can be considered incomplete, inappropriate and therefore ineffective.

As you have studied in unit 3, the current primary school curriculum is quite innovative and its demand is that teaching and learning should prepare children for lifelong learning. Therefore, it is imperative that you are able to:

- develop appropriate objectives
- select relevant contents and activities to achieve the objectives
- select appropriate and available learning resource materials which will facilitate the achievement of the objectives by the learners;
- apply appropriate assessment methods, to ascertain the achievement of the objectives and
- maintain a balanced structure and organisation in every teaching –learning encounter

You will remember that in unit 2, the characteristics of children were considered. In that unit, it was established that children are different both physiologically and psychologically. Therefore they need specific intervention strategies to improve their learning.

4.3   Essential Decision Making to Improve Learning

Decision-making to improve learning begins with assessment, which is appropriately implemented and interpreted. Such assessment provides valuable information to teachers, policy makers and researchers, as well as families. The prevailing assessment in Nigeria is continuous assessment. Effective teaching requires that you, as a teacher, acquire the skills to construct and implement assessment instruments on your learners.

The followings are different types of assessments.

- Continuous assessment is a designed instrument to check learning at each stage.
- Baseline assessment is sometimes called pre-test. This is an assessment carried out at the start to check whether everyone can do the task so that you can move quickly on to the next stage.
- Performance enhancing feedback is applied to collect feedback on a particular stage of learning to discover those who are ready to move on to the next stage while those who are not ready may try again.
- Flexible learning programme is based on assessment. The assessment gives the flexibility for the whole class to repeat learning stage if the whole class is having problems with a particular learning topic.
- Diagnostic assessment is applied to see whether anyone has peculiar / particular problem with any area of learning and might need special attention
- Formative assessment is applied to assess some small part of a learning programme which will lead on to a bigger task in the programme. This gives the opportunity to learners to learn from the attempt while you monitor to plan further progress. You can administer this type of assessment to all the learners or to small group or individuals
- Summative assessment is the final test to see whether the learning objectives of the lesson have been achieved.

Your assessment data should be interpreted properly so you can use the result to plan for individual learner or the group of learners as a whole.

Valid assessment gives you clear and accurate picture of what the learners know and can do. This will help you decide an appropriate intervention to improve on or change your teaching strategy or methods on curriculum contents or personal interaction.

4.3.1 The Benefits of Assessment to Design and Production of Learning Materials

It will help to decide, based on valid information, the type of learning materials that will be most suitable to adopt, adapt or create to improve learning.

The result of a valid assessment can also point to the areas where you need professional development.

Some help to assist teachers in appropriate assessment in the content area of the curriculum as provided in the appendix of the New Primary SchoolCurriculum. Evans, (2006).

5.0   ACTIVITY

1.   Identify five critical elements of good teaching.
2.   Suggest five ways to achieve effective teaching.

6.0   ASSIGNMENT

- Outline and discuss the three (3) major ways of achieving effective teaching-learning in the primary school.

7.0   SUMMARY

You have been exposed to the essence of teaching and learning in the classroom with special direction towards taking a decision to plan and design intervention to improve learning. In the next unit you shall be considering the learning styles of children. The issue of learning is eclectic (i.e. various and many). You need to be able to see the link of the learners' psychological needs to achieve and be recognised with the principles of instructional/learning materials design.

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UNIT 5   LEARNING STYLES OF PRIMARY SCHOOL CHILDREN CONTENTS

1.0   INTRODUCTION

In the last unit, you learnt about teaching and learning. The emphasis was more on teaching and the teachers' responsibilities. This is alright in itself, but it should be emphasised here that learners are the central focus in all efforts regarding education in school and human development. For this reason, you looked at the characteristics of primary school children in unit 2. You were able to learn just four out of the many factors that influence children's characteristics.

In the design, development, and implementation of instruction at every stage and at all levels, a constantly recurring step is the analysis of the learners' characteristics.

It is so important in the instructional design process that you are going to look at another aspect of the topic so that you will have adequate reference points when you decide to design instructional materials or plan lessons.

Therefore, in this unit, you will be examining "learning styles" as an aspect of individual differences. You will need to consider learning styles when you are designing, producing and utilising learning materials.

2.0   OBJECTIVES

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

•   list at least eight ways in which children learn
•   explain the concept of learning styles

- describe at least four categories of children and their learning styles
- identify the application of learning styles theory to the design of instruction.

HOW TO STUDY THIS UNIT

Read through this unit carefully. Study the unit step by step as the points are well arranged

NOTE: All Answers to Activities and Assignment are at the of end this Book.

3.0 WORD STUDY

Learning Styles: This refers to various approaches or ways of learning. The simple way to understand learning style is to remember that some students remember best the materials they have seen, or heard or personally experienced.

4.0 MAIN CONTENT

4.1 The Way we Learn

Except we are impaired in one form or another, all humans learn through the five senses. We use the sense of sight, through our eyes seeing and observing things around us. The aural sense operates through the ears. We gather information by listening to sounds in different forms. We learn by doing something personally, through the sense of touch and feeling. We also learn by employing all the senses. We use a combination of all the senses: sight, smell, touch, sound and taste.

It is a well established fact that we learn more effectively when we employ at least a combination of three of our senses. Both media and psychology scholars have found out that our ability to learn and remember the points longer can be enhanced by methods appealing to all our senses.

4.2 The Way Children Learn

Holt (1990), says children are born learners. He believes this because there is a natural curiosity in all children that begins at birth when they are put in school. We also know now, through the new brain technology, that children's brains are always absorbing at an alarming rate, as they make sense of the world around them. Hepper (2005), found children's brains have grown to their full adult size. Therefore, Holt says that children can think and that they do like to think. Although their thoughts are somewhat limited by their experiences we must provide answers to their questions in order to clarify their thoughts and extend their experiences.

Holt further says that self esteem and self-confidence are important in the learning of a child. For this reason, overbearing parents and teachers, rote learning and certain methods of testing serve to crush their curiosity, creating a sense of anxiety in them. What do all these translate into for all children?

- Children learn when they are free.
- Children learn by actively participating in the learning.
- Children learn concepts where relations between ideas are demonstrated.
- Children learn in a supportive environment where their thinking abilities can find expression.
- Children learn by playing, experimenting at their own pace.
- Children learn when their needs are met.
- Children learn when they can see, hear, touch, smell and taste.
- Children learn by asking questions.
- Children learn by remembering.

According to Dunn (1978), memory is not only situated in the head. There is body memory. As a result, human beings would not only learn in a particular way, unless information is presented in their preferred modality, some people cannot learn.

How do we consider this when designing instruction, learning materials, or planning lessons? Every individual is uniquely different, and this difference is a central determinant to human behaviour (Alhassan 2006).

In unit two, we explored individual differences in their abilities but we did not say much on learning styles. However, it is our business in this course to:

- design instruction materials that will ensure learning.
- produce learning materials that will be appropriate and relevant.
- apply/use instructional materials that make learning more effective.

So it is important to investigate as many aspects of the learners' behaviour as possible.

4.2.1 Piaget's Categorisation

We have said that meeting the pupils' learning need is an interpersonal process, which also requires the teacher's ability to identify the different types of learners in his/her classroom, in order to help them. It also follows that the teacher needs to study and learn the characteristics associated with the different learners as individuals. As a result, some people generally group learners into three or more categories:

- the talented or gifted learners
- the average or normal learners
- the slow or backward learners
- the special needs learners

It was mentioned in unit two that this generalisation is applied to children throughout all the age brackets in primary school. However, researchers, such as those listed below have disagreed with that generalisation.

• Piaget (1970): stage theory
• Gardner (1989): multiple intelligences theory; David Kolb (1984); Greenberg (1987); Flemings (2009), – learning styles.
• The application of cognitive theory
• Brain researches etc.

Table 5.1:   Piaget's Classification of Children.

Age/Stage	Common Description	Piaget's Categorisation
0-2 years	Infant/ toddler	Sensory-motor stage. Can learn best through what they hear, see, touch, feel or taste.
2-5years	Early childhood/ nursery school.	Pre-operational stage 2-7 years Can learn best through play and intentionally planned support from responsible adults around them. i.e. They are still egocentric (selfish); they cannot classify things without help; they cannot conserve most operation; they have adequate communication vocabulary but cannot understand idioms/proverbs. They are becoming highly sociable and can play in a group (especially the 4-5 years old). 7-11 years concrete operational Children at this stage will understand concepts when they are clearly and concretely presented. They are quite sociable and will form groups. They are agile and enjoy sports and games. They are creative and most can express their thoughts fairly fluently. They can work or study independently or in groups. Most can also read and write well. Intellectual ability is becoming definite. Adulthood features are obvious.

6 – 8 years	Junior primary school; middle childhood	
9–12 years Upper primary	Late childhood Pre–teens/ pre–adolescent	
13–15 years	Adolescents; junior secondary school	Formal operational The children in this category can perform most formal tasks and manipulations. They are anxious to demonstrate their abilities and expertise. They like privacy and get easily upset when embarrassed. They will co-operate if properly approached/ motivated.

The table is an attempt to make you see the relationship of the common classification of children with the developmental stage theory of Piaget. The point you should note is that the children most concerned with in this course transcend through three stages i.e. pre–operational, concrete and formal stages.

Apart from the categorisation of Piaget as illustrated in the table above, other researchers have also found that intellectual beings possess multiple intelligences that they even display a particular learning style.

4.3   Learning Styles

Learning styles are various approaches or ways of learning. They involve methods which are particular to an individual. Fleming, (2009), explains that students learn in many different ways. That a simple way to understand learning styles is to remember that some students remember best the materials they have seen or heard or personally experienced. She identified these various learners and classed them into three listed below.

- **Visual learners**
  Students who learn by observation, watching, viewing and using mostly their sense of sight are referred to as visual learners. These groups of learners are skilled in tasks that require the use of their sight.
- **Auditory learners**
  Some learn by listening, talking, thinking and being told. The learning material can be both in oral and written forms. Students who are disposed to this style of learning are referred to as Auditory or Verbal Learners.

- **Kinesthetic/tactile learners**
  Some can learn best when they personally experience things first hand, experimenting, exploring and practically doing things. These learners are classified as the kinesthetic or tactile learners
  Table 8 provides a comparative overview of the characteristics of Howard Gardner's Multiple Intelligences (M.I.) and learning styles.

Table 5.2:   Overview of M.I. and Learning Styles

	Learner Category	Howard Gardner's M.I. Characteristics	Grace Fleming's Learning Styles Characteristics
1	Visual/ spatial learners	• ability to perceive the visual • think in pictures to create vivid mental images to retain information. • skilled in puzzle building, designing practical objects. • enjoy looking at maps, charts, videos and movies.	• good at observation, watching using mostly the sense of sight. • Forget verbal information quickly. • good at spelling. • prefer quiet study time. • learning best through map reading, tables, charts, technical drawing and illustrations.
2	Auditory/ ver-bal linguistics	• learners who have ability to use words and language. • highly developed auditory skills • (listening/writing etc). • high capacity for remembering information (verbal or written) • good speaker.	• high thinker, listener, speaker, can be talk active • enjoy reading to self aloud. • good at explaining things to others. • high at remembering names, information easily. • good at grammar and foreign languages.
3.	Bodily/ kinae-sthetic intelligence and learning style	• can control body movements • good eye-hand coordination. • good dancer. • ability to balance well e.g. playing ball or walking on beam. • athletic and acting ability.	• learn best by personal contact. • prefer experiencing by doing (exploration and experimentation) • athletic and enjoy sports. • cannot sit down for long. • able to study with background music. • love adventures books, action movies and films. • like role – playing.
4	Musical/ rhythmic intelligence.	• ability to produce and appreciate music. • sensitive to environmental sounds.	

		• learn and remember information in music easily. • skilful in singing, whistling and playing musical instruments. • can compose and remember musical melodies.	
5	Logical/ math-ematical intelligence.	• ability to use reasoning, logic and numbers well. • can think conceptually,. • can make connections between information easily. • curious and ask lots of questions and do experiments. • skilled in Categorising and classifying information. • can handle abstract concept fairly easily.	
6	Interpersonal intelligence.	• can relate well with people • able to see other people's point of view. • can communicate well both verbally and non-verbally. • can often sense the feelings, intentions and motivations of others. • Greatorganiser /facilitator.	
7	Interpersonal intelligence.	• have ability to self reflects • ability to identify personal and weaknesses. • sense of responsibility of their role in relationship to others.	

4.3.1 Other Learning Styles and Preferred Learning Activities

1.   **The competitive style** – shown by students who learn material in order to perform better than others in the class – to get rewards and the teachers' attention.

2.   **Characteristics**

     a.   want to lead in discussion or project
     b.   ask questions
     c.   want to be singled out for doing a particularly good job on a class related activity
     d.   no real preference for classroom methods (lectures, seminars etc.) as long as the method has more of teacher centred focus than student centred focus

3.   **The collaborative style** – shown by students who feel they can learn the most by sharing ideas and talents. They co-operate with teachers and peers and like to work with others. They see the classroom as a place for social interaction as well as content learning.

    Characteristics

     a.   Like lectures with class discussion in small groups – small seminars
     b.   Student designed and taught courses
     c.   Peer determined grades
     d.   Instructor group interaction

4.   **Avoidance style** – this is typical of students who are not interested in learning course content in the traditional classroom. No participation with student or teachers. Uninterested or overwhelmed by what goes on in the classroom.
5.

    Characteristics

     a.   Generally turned off by classroom activities
     b.   Do not want grading tests, instead prefer self evaluation
     c.   Like blanket grades, everyone having a passing grade
     d.   Do not like well organised lectures and instruction or individual interaction

6.   **Participant style**:   Characteristic of students who want to learn course content and want to go to class. They take responsibility for getting the most out of class and participate with others when told to do so. They feel that they should take part in as much as class related activity as possible and little that is not part of the course outline.
7.

    Characteristics

     a.   Like lectures with discussion
     b.   Like opportunities to discuss materials
     c.   Like both objective and essay type tests
     d.   Prefer teachers who can analyse and synthesise material well

    e.   Like reading assignments

8.   **Dependent style**- shown by students with little intellectual curiosity and who learn only what is required. They see teachers and peers as sources of structure and support. They look to authority figures for guidelines and want to be told what to do.

    Characteristics

    a.   Like teachers' outlines or notes on the board
    b.   Clear deadlines for assignments
    c.   Like teacher centred classroom method

9.   **Independent style**- shown by students who like to think for themselves. They prefer to work on their own, will listen to the ideas of others in the classroom. They learn the content they feel is important and are confident in their learning abilities.

    Characteristics

    a.   Like independent study
    b.   Like self-paced instruction
    c.   Like problems which give the student an opportunity to think for himself
    d.   Like projects which the student can design
    e.   Prefer student-centred classroom setting over a leader centred one

4.4   Implication and Application to Design and Production of Learning Materials

Theoretically, learning styles can be used to predict what kind of instructional strategies or methods would be most effective for a given individual learning task. Romiszowski (2010), however, says that rather than label students with a particular leaning style, it seems most appropriate that we should systematically plan to accommodate varying learning styles, multiple intelligences and cognitive styles. What we need to do as teachers or instructional designers, is to be flexible in our teaching approaches to adopt and integrate multimedia approach to our lesson plans and presentations.

To sum up this section, Table 5.3 shows utilisation of your knowledge about multiple intelligences and learning styles.

Table 5.3:   Benefits of M.I. and Learning Styles on Instructional Design

S/N	Impact/Benefits of Knowledge	Application to Instructional Design
1.	You are able to view ability more broadly using the advantages of the multiple talents in your class.	Involve children more actively using their talents and ability to create visuals, stories musical interludes etc. Plan relevant activities and assessment.
2.	You will appreciate the contribution of each child more positively in class and create good rapport with the pupil.	Both the writer of a book and the illustrator will be given credit. A motivation for more materials creation. Children learn academic responsibility.
3.	There would be an increase in parents and community involvement.	Children explore the community resources and relate them to their experience. A definite opportunity for improvisation and adaptation.
4.	Provides opportunity for cooperation among children. They share their strengths and become confident to take responsibility for tasks.	When children share their strengths through creativity they become experts. You will be helping them to develop self esteem.
5.	Children have deeper understanding when you appeal to their various ability and intelligence	Learning materials must be relevant and appropriate. Use multiple approaches to achieve the objectives. An opening to multi – media production.
6.	Children will be able to identify their style of study and remember information more easily.	Motivation for individualised learning. Children gain confidence as self esteem is promoted.
7.	Children are happy, free and are able to develop to the peak of their ability level.	Satisfaction for contributing to children's development.

5.0   ACTIVITY

1.   List at least eight (8) ways to which children learn.
2.   Describe at least four (4) categories of children and their learning styles.
3.

6.0   ASSIGNMENT

1.   How can the teacher accommodate the varieties of individuals learning abilities and styles?

7.0   SUMMARY

In this unit, you have learnt about the learning styles of primary school children. You are now conversant with the knowledge that multiple intelligences and learning styles theories help us to predict the kind of instructional strategies or materials that would be most effective for a given individual or learning task.

In the next unit, which is the beginning of Module Two, you will be examining the principles of instructional or learning materials design.

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