

**COURSE  
GUIDE**

**EDA832  
ECONOMICS OF EDUCATION**

**Course Team:**



**NATIONAL OPEN UNIVERSITY OF NIGERIA**

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## Introduction

This course is designed to acquaint you with the meaning and content of economics of education. It presents the relationship between education and the economy and identifies the major ways education contributes to economic growth. The course explains the concept of human capital and explores the differences between human capital and physical capital. The course treats the concept of education as consumption and investment; it discusses employment in educational institutions and identifies the reasons for the large measure of unemployment in Nigeria. The concept of cost is explained; education costs categorized and the rationale for cost analysis in education discussed. The factors influencing education costs are discussed followed by discussion of the meaning and advantages of cost benefit analysis. The economic and non-economic benefits of education are also examined. This is followed by the methodological problems and promise of cost benefit analysis. The course also looks at efficiency and wastage in education. The determinants of education demand is discussed followed by social demand for education in Nigeria.

## Learning Outcomes: Aims and Objectives

It is expected that after reading through this course, you should be able to:

1. List and explain the content of economics of education.
2. Discuss how education is related to the economy.
3. Identify three major ways education contributes to economic growth.
4. Explain the concept of human capital.
5. Discuss the problems and solutions to issues related to human capital development.
6. Identify the reasons for the large measure of unemployment in Nigeria.
7. Discuss the rationale for cost analysis in education.
8. Explain how education is investment.
9. Discuss the factors influencing costs in education.
10. Explain what cost benefit concept in education entails.
11. Discuss the economic and non-economic benefits of investment.
12. Discuss the promises of cost benefit analysis.

## Study Unit

This course material is of 15 study units

### Module 1

Unit 1	General Conceptualization of Economics of Education
Unit 2	Relationship Between Education and Economy
Unit 3	Education, Economic Growth and National Development
Unit 4	Education and Human Capital (Resource) Development

## Unit 5 Education and Employment

### Module 2

- Unit 1 Cost Analysis in Education
- Unit 2 Education - Consumption or Investment
- Unit 3 Factors Influencing Cost of Education
- Unit 4 Cost Benefit Analysis
- Unit 5 Measurement of Benefits from Education

### Module 3

- Unit 1 Methodological Problems and Promise of Cost Benefit Analysis .....
- Unit 2 Measuring Efficiency in the Educational System
- Unit 3 Efficiency and Wastage in Education
- Unit 4 Determinants of Education Demand
- Unit 5 Social Demand for Education

### Assignment File

The Assignment file will be given to you in due course by the course tutor. In this file, you will find all the details of the work you will submit to your tutor for marking. The marks you obtain from these assignments will count towards the final mark you obtain for this course. Further information on assignments will be found in the assignment file.

There are five assignments in this course. These include;

1. Give reasons for the long neglect of economics of education and justify the need for the study.
2. Discuss ways in which education is influenced by the economy.
3. Categories education costs into types and discuss the rationale for cost analysis in education.
4. What factors influence cost of education.
5. Discuss the advantages of cost benefit analysis.
6. State the differences between the terms efficiency and effectiveness and discuss ways of reducing educational wastage.

### Information and Assessment

There are two aspects of the assessment of this course. First, are the tutor marked assignments and second is a written examination. In tackling the assignment, you are expected to apply information, knowledge and techniques gathered during the course. The assignments must be submitted to your tutor for formal assessment. The work you submit to your tutor for assessments will count for 40% of your total course work.

There are fifteen tutor-marked assignments. You only need to submit six of the fifteen assignments. You are encouraged however to submit all fifteen assignments in which case four of the assignments will be counted. Each assignment counted 10% towards your total mark.

Assignment questions for the units are contained in the assignment file. You will be able to complete your assignments from the information, and materials contained in your set books, reading and study units.

When you have completed each assignment, send it together with a (tutor marked assignment) form to your course tutor. Make sure that each assignment reaches your tutor on or before the deadline given in the assignment.

### Final Examination and Grading

The final examination for EDA.832 will be of three hours duration and have a value of 60% of the total course grade. The examination will consist of questions which reflect the types of self-testing practice exercise and tutor-marked assignments, you have previously encountered. All areas of the course will be assessed.

### Course Overview

The table below brings together the units, number of weeks you should take to complete them and the assignments that will follow them.

UNIT	TITLE OF WORK	WEEKLY ACTIVITY	ASSESSMENT (END OF UNIT)
	Course Guide	1	
1.	Education, economy and development	3	Assignment 1
2.	Relationship between education and the economy	3	Assignment 3
3.	Education, economic growth and	3	
4.	National Development	2	
5.	(Resource) development	4	“ 5
6.	Cost Analysis in Education	3	Assignment 6
7	Education-consumption or Investment?	3	
8.	Factors influencing cost Education	2	
9.	Cost Benefit Analysis	2	Assignment 9
10.	Measurement of Benefits from Education	2	
11.	Methodological Problems and Promis of	e	
12.	Measuring the Efficiency of the Educational Systems	3	

13	Efficiency and Wastage in Education	3	Assignment 12
14.	Determinants of Education Demand	3	
15.	Social Demand for Education	4	<b>Assignment 15</b>
	TOTAL		

### Strategies For Studying the Course

1. Read the course guide thoroughly.
2. Organize a study schedule. Note the time you are expected to spend on each unit and how the assignments relate to the unit.
3. Once you have created your own study schedule, do everything to stick to it.
4. Read the unit thoroughly.
5. Do all your assignments and submit to the course tutor.
6. Prepare yourself for examination.

### Summary

EDA832 introduces you to the Economics of Education. Upon completing the course, you will be equipped with basic knowledge of Economics of Education, particularly as it applies to the Nigerian situation. You will be able to answer these kinds of questions:

1. How can you account for the long neglect of Economics of Education?
2. How is education influenced by the economy?
3. What are the similarities and differences between human economy and human capital?
4. How can you account for the large measure of unemployment in Nigeria?
5. What is the rationale for cost analysis in education?
6. What are the factor that influence costs in education?
7. What are the advantages of cost benefit analysis?

### Information For Further Readings

Coombs, P. H. (1985) *The World Crisis in Education: The views from the Eightees*, New York: Oxford University Press.

Coombs, P. H. and Hallak, J. (1987) *Costs Analysis in Education: A tool for Policy and Planning*. Baltimore and London: The John Hopkins University Press.

Eze, A. (1983) *Economics of Education: The Nigerian Experience*, Owerri: New African Publishing Company.

Nwadiani, M. (2000) *Economic Dimensions of Educational Planning*, Benin City: Monose Amalgamated.

Sheenan, J. (1973) *The Economics of Education*, London: George Allen and Unwin.

Uwasurike, C. N. (ed.) (1991) *Educational Planning and National Development: A Nigerian Perspective*, (Awka: Meks Umalle Publis



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## MODULE 1

Unit 1	General Conceptualization of Economics of Education
Unit 2	Relationship Between Education and Economy
Unit 3	Education, Economic Growth and National Development
Unit 4	Education and Human Capital (Resource) Development
Unit 5	Education and Employment

## UNIT 1 GENERAL CONCEPTUALIZATION OF ECONOMICS OF EDUCATION

### Unit Structure

- 1.1 Introduction
- 1.2 Learning outcome
- 1.3 Main Content
  - 1.3.1 The Meaning of Economics of Education
  - 1.3.2 The Scope of Economics of Education
  - 1.3.3 Considerations of the Delay in Introducing Economics of Education as a Field of Study
  - 1.3.4 Justification for the Study of Economics of Education
- 1.4 Summary
- 1.5 References/Further Reading/Web Resources
- 1.6 Possible Answers to Self-Assessment Exercise(s)



### 1.1 Introduction

You may not have studied Economics of Education as a course of study at the undergraduate level. You may have either studied Education or Economics as separate subjects. This unit therefore acquaints you with the general conceptualization of this relatively new area of study. The focus will be on the meaning and scope of Economics of Education, as well as the reasons for the apparent long neglect of this important aspect of Education. The unit also provides a justification for a course on Economics of Education.



### 1.2 Learning Outcome

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

- Explain the meaning of Economics of Education
- List and explain the content of Economics of Education
- State reasons for the long neglect of this area of education
- Justify the need for Economics of Education.



## 1.3 Main Content

### 1.3.1 The Meaning of Economics of Education

As an education student, you are aware that there are various branches of Education, incorporating sociology of education, psychology of education, philosophy of education, educational measurement and education, educational administration and planning, adult education administration, physical and health education, and so on. Each of these branches has its own peculiar body of knowledge which distinguished it from other ones. However, it should be noted that despite the peculiarities, some common elements exist among them. This implies that each of the branches is linked to one another.

For example, it is common to talk about the administration of physical education, the philosophy of educational administration, and so on.

Just like in the case of education, economics has also a number of its own branches, incorporating financial economics, economic history, quantitative economics, industrial economics, applied economics, petroleum economics, economics of education, production economics, and so on. Again, each of the branches has its own body of knowledge which distinguishes it from other, and which also links it with other branches of economics.

Given the above explanation, it may not be hard to discern that the term Economics of education derives from its two major components, “economics” and “education”. This explains why Nwadiani (2000) has suggested that a proper understanding of the term must first involve an understanding of the words, economics and education. However, since you may already be familiar with the concept of education, an explanation of economics may become more necessary.

Eneasator (1996; 86 - 87) has recognized that rather preponderance nature in the definition of the term, economics, has summarized it as essentially dealing with the following areas, among others:

1. Production of wealth, goods and services.
2. Income distribution, involving devising equitable means to ensure fairness and equity in the distribution.
3. Allocation of scarce resources, using appropriate criteria.
  4. Human capital utilization, to take care of the problems of unemployment, under-employment and productivity.
  5. Economic growth and development.
  6. Planning, financing and costing of plans to ensure

effective and efficient use of resources.

In its global sense Economics of Education could be regarded as that branch of economics that relates the above aspects of economics to education, with the aim of ensuring efficiency in the allocation and utilization of resources in education. In a more specific sense, Nwadiani (2000) has defined it as “the study and practice of resources generation, allocation and utilization”, and their relationship with education and the general economy of the society, within this definition, you should be able to recognize three critical factors, namely, the concern for the generation, allocation and utilization of available resources in education, the symbiotic relationship between education and the economy and the influence of the economy on education. The implication is that any definition of the term, economics of education, must per se, contain these vital elements.

### **Self-Assessment Exercise**

- |                                   |
|-----------------------------------|
| 1. What is economics of education |
|-----------------------------------|

### **1.3.2 The Scope of Economics of Education**

As a relatively new area of study, it is not easy to delimit the scope of economics of education, apparently because the field is still growing. Its early proponents were pure economists, who understandably concentrated more on economic matters than educational issues. The arrival of educationists into the area has therefore continued to bring changes in the scope of the discipline.

However, the scope of economics of education, has been generally accepted to include the generation, allocation and utilization of resources for education through the creation of human capital. Again, in its general dimension, Blaug (1972), has pointed out that economics of education is only part of the story of any educational issue, implying that its contents should be drawn from various related areas, including other branches of education and economics, as earlier highlighted. Based on this precept, Blaug (1972) has suggested that economics of education should fundamentally cover the following areas as they are influenced by education: occupational structure of the labour force, the recruitment and promotion practices of employers, the migration of labour between regions within a country and between different countries, the size distribution of personal income, the propensity to invest and the prospects of economic growth. Within this context, economics of education could be seen as a vast area of study involved in the investigation of a number of economic issues related to education.

In a more recent attempt to delimit the scope or identify the competency areas of economics of education, Nwadiani (2000), specified the

following areas:

- Demand and supply of education;
- Educational demography;
- Educational finance: their sources and distribution;
- Taxation for Education;
- Costing;
- Cost-Benefit of investments in education;
- Cost-qualify relation;
- Cost-quality relation;
- Wastage in education;
- Productivity in education;
- Educational manpower development;
- Migration of school leavers and labour market;
- National economic growth and development;
- Rural and urban economics and the consequences of schooling on the economy.

Overall, it is evident that the scope of economics of education embraces all aspect of economics that describe, explain and justify investments in education. It therefore contains all the various economic considerations which bear (or should bear) on education.

#### **Self-Assessment Exercise**

- |   |
|---|
| 1. What is the scope of economics of education? |
|---|

### **1.3.3 Considerations for the Delay in Introducing Economics of Education as A Field of Study**

The apparent neglect of economics of education as an area has been attributed to a number of reasons.

First, there was the general misconception by National leaders and even economists that education is a non-productive investment. According to Nwadiani (2000), this wrong made the economic planners pay more attention to the industrial and other sectors of the economy which they considered more productive.

Secondly, the world financial institutions that granted loan facilities to finance major projects, especially in the developing countries, hardly recognized education as an area of investment. For example, the World Bank, which was established in the mid-1940s, made provisions for capital investments in such areas as agriculture, transportation, industries and port development. Within this context, education was considered as a nonproductive sector for investment.

Thirdly, Nwadiani (2000), highlighted the “dearth of a comprehensive

model for an economic analysis of education investment behaviour”, as a major constraint to early start of economics of education as an area of study. It is generally argued that other sectors utilize the competitive market principles to arrive at investment decisions. Essentially, this principle recognizes the competition between sellers and buyers in the production and consumption of any good. The implication is that no seller (producer) can sell his commodity below the production cost, nor a consumer pay above the attached value. This means that there is economic inter-dependence between production and consumption of any commodity.

While other sectors obey the principles of competitive market, education sector seems to be an exception. The uniqueness of the sector makes it possible for it to create its own demand and at the same time consume its output at no competitive market prices. For example, the recent surge in school enrolment is as a result of the government-declared Universal Basic Education Programme which makes it compulsory for all school-aged children to be in school. The provision is at no market price, since it is free. This, in effect, violates any competitive market principle. The only justification is that Nigeria, the government has accepted education as a “huge government venture” rather than as a private enterprise (FRN 1998). The implication is that education is sold at no cost to the consumers.

Given the above analysis, it is apparent that education is hardly delivered under pure economic theory, in terms of demand and supply. Does this situation therefore make the study of economics of education a non-issue? Is there any justification in the study of economics of education? This is the focus of the next section.

#### **1.3.4 Justification for the Study of Economics of Education**

##### **The justification is on the following grounds:**

First, the rising cost of education and the increasing pressure in available resources, make it necessary to introduce economics into education. Devising the means of reducing the rising cost of education, for example, should be the concern of education economists.

Secondly, there is existing high level of unemployment among school leavers in the face of selective manpower shortages in some other sectors of the economy. It therefore appears that there is a mismatch between the type of education provided, and the type needed by the economy. There is therefore the need to synchronize the two situations with appropriate economic techniques.

Thirdly, there is the problem of quality of education provided in schools.

Today, many employers of school products are complaining about the poor performance of these school leavers. The overall effect on the economic productivity of the country calls for some economic intervention.

Fourthly, education is only one of the sectors of the economy, among several others. Since, each sector partly depends on others for survival, economics of education will ensure that education is properly linked to other sectors. For example, it could be projected and provided in the educational system through rational economic plans.

Fifthly, the increasing politicization of education has resulted in uncoordinated expansion of the educational system. Nwadiani (1992) has noted that the determinants of the direction of education, allocation of resources, control, the content and learning environment have become purely political, and therefore calls for serious economic concern.

On the whole, it should be recognized that education is no longer a “domestic animal”. As an integral part of the economy, it can no longer be excluded from the various economic influences and therefore requires serious economic attention.

#### **Self-Assessment Exercise**

1. Give two reasons for the apparent neglect of economics of education.



#### **1.4 Summary**

From the discussions so far, it could be seen that economics of education, as a course, tries to bring together in a systematic manner, various economic considerations that bear on education. The emphasis is on the relationship between education and economic factors. All education economists should explore this relationship and see how educational and economic factors can be blended.

We have tried to demonstrate that economics of education is a major branch of economics that tries to relate various economic variables to education, and invariably draws its contents from these two areas - economics and education. The long neglect of this vital area of education has been attributed to three critical factors which border on non-recognition of education as a productive investment. The renewed emphasis on economics of education is as a result of a number of factors related to: rising cost of education, high level of unemployment, politicization of education, poor quality education and inter-dependence of economic sectors, which call for the application of economic factors to

education.

### **Tutor Marked Assignment**

1. Explain in your own words what you understand by the term Economics of Education.
2. What do you think must be the core areas of Economics of Education?
3. State three reasons for the apparent neglect of Economics of Education as an area of study in education.
4. With four reasons, justify the place of Economics of Education as an area of study in education.



### **1.5 References/Further Reading/Web Resources**

Blaug, M. (1972). *An Introduction to the Economics of Education*. Barmondsworth: Penguin Books.

Eneasator, G. O. (1996). *The Economics of Education*. In H.O.N. Bosah and G. O. Eneasator (eds.) *Dimensions of Educational Planning and Economics of Education*. Lagos: Ed-Solid Foundation Pubs., pp. 85-100.

Nwadiani, M. (1992). "The Relationship between Human Resource Planning and the availability of Places in Higher Education in Nigeria". *Higher Education in Europe*. XVII (3), pp. 89-98.

Nwadiani, M. (2000). *Economic Dimension of Educational Planning in Nigeria: Theory and Practice*. Benin-City: Monose Amalgamates.



## 1.6 Possible Answers to Self-Assessment Exercise(S)

### Answers

1. What is economics of education?
2. Give two reasons for the apparent neglect of economics of education.

#### **What is economics of education?**

Economics of Education could be regarded as that branch of economics that relates the above aspects of economics to education, with the aim of ensuring efficiency in the allocation and utilization of resources in education. In a more specific sense, Nwadiani (2000) has defined it as “the study and practice of resources generation, allocation and utilization”, and their relationship with education and the general economy of the society.

#### **Give two reasons for the apparent neglect of economics of education.**

The renewed emphasis on economics of education is as a result of a number of factors related to:

- Rising cost of education,
- High level of unemployment,
- Politicization of education,
- Poor quality education and
- Inter-dependence of economic sectors, which call for the application of economic factors to education.

## UNIT 2      **RELATIONSHIP BETWEEN EDUCATION AND ECONOMY**

### Unit Structure

- 2.1 Introduction
- 2.2 Learning outcome
- 2.3 Main Content
  - 2.3.1 Conceptual Definitions
  - 2.3.2 Relationship of Education with Economy
  - 2.3.3 Relationship of the Economy with Education
- 2.4 Summary
- 2.5 References/Further Reading/Web Resources
- 2.6 Possible Answers to Self-Assessment Exercise(s)



### **2.1 Introduction**

Although education is related to virtually all the systems (for example, political, social and cultural systems), there is a wide agreement among educational administrators that education decisions should take account of the economic value of education and the contribution of education to economic growth. The study of the relationship between education and the economy therefore becomes imperative as the initial step in studying about education and the general economic system. This forms the focus of this unit.



### **2.2 Learning Outcome**

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

- a) Briefly explain the concepts of education and economy
- b) Discuss how education is related to the economy
- c) Discuss how the economy is influenced by education.



### **2.3 Main Contents**

#### **2.3.1 Conceptual Definition**

The starting point would be to define the concepts of education and economy, as would be used here in the text.

Within this context, education would be referred to as that formal type of education received in educational institutions, as well as the types

acquired in informal settings, incorporating adult and non-formal education. It also embodies the various forms of learning which lead to the acquisition of permanent, literacy. In sum, education could be regarded as that form of learning which leads to the acquisition of knowledge, skills and attitudes and which enables one to adjust and contribute to the environment one finds himself.

The concept of economy has been summarized by Eneasator (1996) to mean the sum total of the socio-political and economic factors that interact and operate in several ways to determine the level of national income, which influence the quality of life in any given society. The national income is sometimes referred to as income per capita. It is this indicator that helps to determine the developmental level of any country. Thus, a country with a high per capita income, is generally regarded as a rich or developed country, while the one with a low per capita income is characterized as a poor or developing country. Every country strives to improve its developmental level, through transformations of its socio-political and economic life. In all the transformations, education plays a prominent role.

### **2.3.2 Relationship of Education with Economy**

There is a symbolic relationship between education and the economy. Indeed the criteria for investment in education are basically economic. Education and economy are therefore regarded as mutually dependent. Infact, Enyi (1999), notes that the case for investment in education rests on the logic that:

- The educated earns more than the uneducated in most countries;
- Earning power of individuals reflects their productivity level, and therefore increases an individuals level of productivity
- Since economic development is related to individuals' productivity levels, more education leads to more economic development.

Blaug (1972), in his early works on economics of education pointed out that the relationship between education and the economy lies on the effect of literacy on the development of the economy. In apparent support of the logic on investment in education as stated earlier, Eneasator (1996), pointed out that literacy may contribute to the development of the economy by:

- a) Raising the productivity of literates;
- b) Raising the general productivity of individuals; through working in association with the literates. This is demonstrated in the so-called spillover effects of literacy.
- c) Reducing the cost of disseminating information to individuals

- (for example about health and nutrition);
- d) Stimulating the demand for a particular type of education (for example, vocational and technical education), which may be more relevant to the economy;
  - e) Strengthening economic incentives, that is the tendency of people to respond positively to a rise in the rate of reward of their efforts.

It is in realization of the above effects and relationships of education with the economy, that many national governments have launched programmes on mass literacy. In Nigeria, for example, the government had, in 1976, launched the Universal Primary Education Programme, as a way of promoting mass literacy. It had also supported this programme with adult literacy and nomadic education programmes of recent, the Universal Basic Education (UBE) has been launched as a means of universalizing access to education. It is hoped that with these programmes, the entire populace will acquire basic literacy which will help them to contribute meaningfully to the overall economy of the country.

### **Self-Assessment Exercise**

1. State briefly two ways in which education is related to the economy.

### **2.3.3 Relationship of the Economy with Education**

The above section highlighted the relationship of education with the economy. In a related discussion, we shall now focus attention on how the economy is related to education. One way of doing this is to identify how some economic models have been adapted and used in education.

From the on-set, it should be noted that education is a capital-intensive business, implying that a lot of money is needed to finance it. In order to achieve this, a number of models for financing education have been proposed. Some of them include:

1. Complete private sector involvement, incorporating individuals, corporate bodies and organizations;
2. Joint partnership financing, involving both the government and private sector.
3. Sole-government financing.

In Nigeria, a variety of these models have been tried. The early education enterprise, for example, was dominated by private sector involvement. But at the moment, the joint-partnership model is being adopted, because there is the practical realization that no single economic sector can finance

education alone. The Federal Government, in its National Policy on Education, recognizes education as an expensive social service, requiring adequate financial provision from the Federal, State and Local Governments, as well as the Local Communities, individuals and organizations (FRN1998).

Other economic-related models have been developed and used in other areas of education. For example, the Parnes-Tinbergen model of manpower planning is based on how education is related to the rest of the economy. This model projects future manpower demands, given certain levels of national income. On the other hand, the Schultz-Dennison model, inspired by the investment theory of economics, used the concept of human capital formation to justify investment in education. In all the various educational models, whether they relate to financing of education, manpower development, teacher demand and supply, rate of returns to education, and so on, it should be noted that these models have their roots in economics, and therefore have their influence on the economy (OECD 1973).

One other area of inter-dependence between economy and education is in the area of employment. The system of education and nature of economy determines the profitability of employment. Thus, where the educational system produces the right manpower for the economy, the profitability of employment will be relatively high, because there will be no cases of unemployment or under-employment. Indeed, the educational system and the level of economy combine to determine employment prospects.

Again, the relationship of economics with education can be seen in the area of demand for education. The demand for education will normally be reflected in the provision of educational institutions and facilities.

Accordingly, Schools and colleges are either expanded or established in order to meet up with the demand. These institutions must be carefully planned to ensure that the number of student places are adequate. The creation or expansion of educational facilities in response to demands will however depend on the viability of the economy. Where the economy is not buoyant, it is unlikely that the demand for education will be met. Any reaction to educational demands will always reflect the overall nature of the economy.

Finally, the relationship of the economy with education can be further discussed in the area of resource allocation to education. Efficiency criteria, which is an important attribute to both education and economics, stipulates that scarce resources should be invested in areas of maximum returns and in the most efficient way. Efficiency dictates that resources should be so allocated as to ensure minimum running cost and minimum

wastage. Since education is never planned in isolation, but in relation to other sectors of the economy, it then implies that whatever affects these sectors also affects education.

On the whole, it could be seen from our discussion so far, that the link between education and the economy is an interactive one: what affects one affects the other.

### **Self-Assessment Exercise**

1. Highlight the ways in which the economy is related to education.



### **2.4 Summary**

Our discussion in this unit has shown that there is a symbiotic relationship between education and the economy. Both of them relate in one form or another to bring about changes and transformations in the general society. It is important that the education economists should note these relationships, as a basis for their understanding how they influence national development - an area that will be discussed in our next unit.

You should recollect that this unit discussed the relationship between education and the economy. Education was defined as the acquisition of knowledge that leads to the development of skills and attitudes needed for existence within a given environment, while economy refers to the sum total of the socio-political and economic factors which interact in several forms to determine the standard of living of individuals. In terms of how education is related to the economy, it was stressed that this is mainly in the area of the influence of literacy (due to education) on the development of the economy. On the other hand, the relationship of the economy with education was discussed in light of the various economic models which have been developed or adopted for education.

### **Self-Assessment Exercise**

2. Highlight the ways in which the economy is related to education.

### **Tutor Marked Assignment**

1. How do you explain the terms Education and Economics?
2. Highlight two ways in which Education is related to the Economy
3. In which ways is the Economy related to Education.



### **2.5 References/Further Reading/Web Resources**

Blaug, M. (1972). *An Introduction to the Economics of Education*.  
Barmondsworth: Penguin Books.

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## 2.6 Possible Answers to Self-Assessment Exercise(S)

### Answer

**State briefly two ways in which education is related to the economy.**

Education may contribute to the development of the economy by:

- a) Raising the productivity of literates;
- b) Raising the general productivity of individuals; through working in association with the literates. This is demonstrated in the so-called spillover effects of literacy.
- c) Reducing the cost of disseminating information to individuals (for example about health and nutrition);
- d) Stimulating the demand for a particular type of education (for example, vocational and technical education), which may be more relevant to the economy;

**Highlight the ways in which the economy is related to education.**

- One other area of inter-dependence between economy and education is in the area of employment. The system of education and nature of economy determines the profitability of employment. Indeed, the educational system and the level of economy combine to determine employment prospects.
- Again, the relationship of economics with education can be seen in the area of demand for education. The demand for education will normally be reflected in the provision of educational institutions and facilities.
- The creation or expansion of educational facilities in response to demands will however depend on the viability of the economy. Where the economy is not buoyant, it is unlikely that the demand for education will be met. Any reaction to educational demands will always reflect the overall nature of the economy. Finally, the relationship of the economy with education can be further discussed in the area of resource allocation to education. Efficiency dictates that resources should be so allocated as to ensure minimum running cost and minimum wastage. Since education is never planned in isolation, but in relation to other sectors of the economy, it then implies that whatever affects these sectors also affects education.

## UNIT 3      EDUCATION, ECONOMIC GROWTH AND NATIONAL DEVELOPMENT

### Unit Structure

- 3.1 Introduction
- 3.2 Learning outcome
- 3.3 Main Content
  - 3.3.1 Conceptual Definition of Terms
  - 3.3.2 Education and Economic Growth
  - 3.3.3 How Education Contributes to Economic Growth
  - 3.3.4 How Education Contributes to National Development
- 3.4 Summary
- 3.5 References/Further Reading/Web Resources
- 3.6 Possible Answers to Self-Assessment Exercise(s)



### 3.1 Introduction

Investment is a necessary condition of economic growth and national development. As an investment, education is an important condition for promoting both economic growth and national development. This unit therefore discusses the role of education in these areas. It is suggested that education and economic growth, as well as national development, must be viewed jointly.



### 3.2 Learning Outcome

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

- Differentiate between education and national development
- Support how education is related to economic growth with illustrations
- Identify two major ways education contributes to economic growth
- Identify three ways education contributes to national development.



### 3.3 Contents

#### 3.3.1 Conceptual Definition of Terms

Your understanding of this unit will be heightened by your understanding of the two major concepts to be used, namely: economic growth and national development.

Ordinarily, growth implies increase in size, status, height, quality, value, and so on. Economically, growth means increase in economy. Indeed, this definition approximates the true meaning of the term, economic growth, because it is normally measured by the rates of increase of national income. National income refers to the sum total of all earned and unearned incomes in the economy. It is generally believed that education tends to raise the earnings of the educated; therefore investment in education accelerates economic growth.

Development, other hand, is sometimes erroneously regarded as growth; but a difference exists. Development is regarded as growth plus change. The implication is that development incorporates both growth and change; change could be in terms of social, cultural, political, economic, quantitative or qualitative dimensions. Within this context, national development could be seen as the growth and changes, as well as the various improvements that occur in a given environment, with the aim of promoting good quality of life among the populace. Like in the case of growth, it is generally regarded that education through its various processes, is instrumental to any national development. This is an issue that will be discussed later in the unit.

### **3.3.2 Education and Economic Growth**

There is a conclusive evidence that education is positively related to economic growth. Indeed, a number of international studies have been conducted to establish this relationship, and a few of them will be cited here.

The first one relates to Bowman Anderson's (1963) study which measured literacy rates and Gross National Product (GNP) in 63 countries, and concluded that a 40% literacy rate was a necessary condition for income per head to exceed \$300 in 1955, or 90% literacy rate for the income per head to exceed \$500. The implication is that any country striving to increase its GNP, must first try to raise its literacy level.

In the second study by Kaser (1966), the GNP per head of 12 developed countries were measured and related to five different educational indicators, namely: enrolment rates for three levels of education, students' enrolment ratio, pupil-teacher ratio, total expenditure per student and teachers' salaries as a proportion of GNP per head. The conclusion was that higher GNP per head was associated with higher enrolment ratios, particularly at the secondary and tertiary levels of education.

In a related study by Bennett (1967), it was clearly established that vocational and general secondary education has high relationship with

economic growth. A closely related study by Peaslee (1967), show that no country has ever achieved significant economic growth without first enrolling 10% of the total population in primary schools.

The overall implication of the reported studies is that the development of the education system would very likely lead to rapid economic growth.

### **Self-Assessment Exercise**

1. State the major ways in which education contributes to economic growth.

### **3.3.3 How Education Contributes To Economic Growth**

Education contributes to economic growth in two major ways, namely

- (a) By improving the literacy level of the labour force, and
- (b) By helping in the acquisition of relevant skills and expertise.

#### **Improving the Literacy Level of the Labour Force**

The main thesis in this form of contribution is that, within a given occupation, a better-educated person is likely to do a better job than a less-educated one, because additional education is expected to make an individual more aware of better ways of doing things. In a summarized form, acquired literacy will help an individual:

- have a liberal mind and positive orientation towards life and its related activities;
- accept and appreciate changes and innovations which may enhance his productivity;
- improve his health habits which have implications for his effective contribution to the economy; a sickly individual can hardly make any meaningful contribution to the economy;
- generate ideas and information which may assist others to improve their performances within the economy;

Put together, education helps to link the development of the working individual with the general development of the community to which he belongs. It is within this context that the Federal Government of Nigeria has initiated many educational programmes, aimed at raising the literacy level of the populace. The examples include the Universal Primary Education Scheme of 1976, the Adult Literacy and Mass Education Programme of 1990, the Nomadic Education Programme and the recent Universal Basic Education Scheme of 1999. The aim of these initiatives is to further prove that improvements in labour through education and training can make contributions to economic growth.

### **Education as a Source for Acquiring Relevant Skills and Expertise**

Eneasator (1996) has been right to note that education plays a major role in the acquisition of skills and expertise. Skills, which are usually of different types (for example, political, economic, social, etc.), are essentially taught and developed in educational institutions. There is a conclusive research evidence that the level of acquisition of skills varies with the length of time spent in educational institutions. Indeed, studies in countries like the U.S.A. show that the contributions of labour to economic growth varies positively with the length of period spent in schools (Eze 1983). This is because the long stay in school helps in the acquisition and mastery of relevant jobs skills, which are required for effective production of goods and services.

There are two main ways in which the acquisition of skills and expertise facilitate economic growth. In the first instance, the educated individual has a better mastery of the tools and techniques required for performing a given job. The implication is that there will be higher job-productivity as well as higher job efficiency, which are necessary conditions for an effective economic growth. There is a conclusive evidence that countries with better skilled labour-force, develop faster and better than the ones with little or no relevant skills. In Nigeria, there is the public out-cry about the poor job performance of school graduates. This is generally attributed to inadequate knowledge of job skills. The undeveloped status of the country is partly attributed to this factor.

The second way, the acquisition of skills and expertise influence economic growth, as identified by Eneasator ('1996), relates to the management of resources (physical and human). A country may have all the skilled labour force, as well as the necessary resources, but may lack the capacity to manage them effectively. The acquisition of relevant management skills ensures that both the human and physical resources are well blended and reconciled through effective planning, organizing, controlling, evaluating, and coordinating, to achieve the desired results. It is only when the resources are well utilized that effective productivity in any economy can be envisaged. Nigeria, with all its abundant wealth and resources, is still poor and undeveloped, because of its inadequate management skills to harmonize and utilize the resources.

### **3.3.4 How Education Contributes to National Development**

Recollect that National Development refers to the growth, changes and improvements occurring in a given economy, with the aim of promoting the quality of life among the populace. Within this context, education contributes to national development in the following ways:

- i. Fostering permanent literacy;
- ii. Developing programmes to achieve national objectives;
- iii. Eliminating wasteful imbalances in the educational system;
- iv. Checking unemployment in the economy;

Judicious utilization of available resources. These contributions are further discussed below:

### **Fostering Permanent Literacy**

Education is already known to be positively related with economic growth, and by extension, national development. To encourage education, government is enforcing literacy programmes through a variety of forms, e.g. Universal Basic Education. With such programmes, an educated and skilled labour force is created for the economy.

### **Developing Measures to Achieve National Objectives**

The national objectives, as specified in the National Policy on Education are basically economic objectives, and the government has decided to use education as a tool for achieving these objectives. Within this context, the following measures exist for enhancing the contributions of education to national objectives:

- Rating education high in national development plans;
- Relating education to overall community needs;
- Using modern educational techniques to encourage acquisition of relevant knowledge and skills;
- Structuring education to maximize self-reliance and self-development.

### **Eliminating Wasteful Imbalances In Education**

In many developing countries, like Nigeria, the rising demand for education particularly at the primary level, create problems for some other levels. For example, expansion at the primary level, due to demand, is hardly complemented at the secondary and tertiary levels. The result is that many students graduating at the primary level, are hardly accommodated at the secondary level, creating chances for drop-outs. This is wasteful. But through adequate educational planning techniques, such lapses are eliminated.

### **Checking Unemployment in the Economy**

Unemployment is a serious drain on the economy. However, through the various manpower planning techniques, as well as the activities of National Manpower Boards, incidents of unemployment are reduced. This will definitely assist in the process of national development.

### **Judicious Utilisation of available Resources**

Judicious utilization of the available resources ensures that these resources go round to various sectors of the economy. In education, efficiency criteria demands that resources are invested in the most cost-effective manner. This means that education has a number of in-built techniques (for example, cost-benefit analysis, management by objectives, etc.) which ensure that educational objectives are achieved with minimum cost. This situation ensures that money is available for other aspects of

national development.

### Self-Assessment Exercise

- |   |
|---|
| 1. How does education contribute to national development? |
|---|



### 3.4 Summary

Education is an important condition for economic growth and national development. This is borne out by a number of local and international studies justifying this claim. Therefore, education and economic growth as well as national development, must be viewed jointly.

This unit discussed the role of education in promoting economic growth and national development. The influence of education on economic growth is mainly felt in the areas of improving the literacy level of the labour force and helping the populace to acquire relevant skills and expertise. On the other hand, the impact of education on national development is manifested in: developing measures to achieve national objectives, eliminating wasteful imbalances in education, fostering permanent literacy, checking unemployment and making judicious use of available resources.

### Self-Assessment Exercise

- |  |
|--|
| 1. State the major ways in which education contributes to economic growth. |
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- |   |
|---|
| 2. How does education contribute to national development? |
|---|



### 3.5 References/Further Reading/Web Resources

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### 3.6 Possible Answers to Self-Assessment Exercise(S)

#### SELF ASSESSMENT EXERCISE

1. State the major ways in which education contributes to economic growth.
2. How does education contribute to national development?

#### Answer

1. Education contributes to economic growth in two major wags:

- (a) By improving the literacy level of the labour force.
- (b) By helping in the acquisition of relevant skills.

2. Education contributes to national development by:

- (a) fostering permanent literacy;
- (b) developing programmes to achieve national objectives;
- (c) Eliminating wasteful imbalances in the educational system;
- (d) checking unemployment in the economy;
- (e) judicious utilization of available resources.

## **UNIT 4      EDUCATION AND HUMAN CAPITAL (RESOURCE) DEVELOPMENT**

### **Unit Structure**

- 4.1 Introduction
- 4.2 Learning outcome
- 4.3 Main Content
  - 4.3.1 Concept of Human Capital
  - 4.3.2 Similarities and Differences between Physical and Human Capital
  - 4.3.3 Problems of Human Capital Development
  - 4.3.4 Dealing with the Problems
- 4.4 Summary
- 4.5 References/Further Reading/Web Resources
- 4.6 Possible Answers to Self-Assessment Exercise(s)



### **4.1 Introduction**

The importance of human resources, vis-a-vis manpower, as an aspect of economics of education, should be apparent from our discussions in previous units. In this unit, it is proposed to examine the issue of human capital (resource) more closely. Consequently, we shall, in this unit, direct our attention to; Concept of human capital, similarities and differences between physical and human capital, problems and solutions to human capital development.



### **4.2 Learning Outcome**

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

- Explain the concept of human capital.
- State the similarities and differences between human capital and physical capital.
- Discuss the problems and solutions to issues related human capital development.



### **4.3 Main Content**

#### **4.3.1 concept Of Human Capital**

The term, human capital has come to be generally accepted by economists as a component of the labour force due to the influence of education and training. This, in, itself is a significant change from the classical theorists concept of labour as a static factor of production. Indeed, for a long time, economists discussed economic progress or stagnation in terms of money,

capital goods and natural resources, to the exclusion of the human factor (Okonkwo 1996). There was the misconception that economic development was a factor of capital inputs only, and that man was only a consumer of economic products. The beginnings of the relatively new interest in the role of human capital dates back to the early 1960's, when Schultz (1961) first put forward the argument that increases in the value of observed total output in relation to increases in existing factors of production could be attributed to investment in human capital.

All humans possess some abilities needed in production. According to Ndu (1991:104), "the stock of abilities can collectively yield a whole stream of services that are needed for yielding income for both the nation and the individual." It is within this context that human beings constitute what in economic terms, is seen as "capital" and in the parlance of the social scientists, a "resource". Human capital or human resource can thus be regarded as the human being who is endowed with knowledge, skills and expertise to be used in various ways, to operate the social and economic systems in a given society. It should be recognized that all the various sectors of the economy require varied human skills and abilities. The various contributions of the educated individual have already been highlighted in the preceding units. Thus, human capital, in the form of educated and skilled personnel is a pre-requisite for the viability of capital projects.

The recognition of the importance of human capital has led to mass educational development programmes, especially in developing African countries, with the result that some of them allocate on the average, 20 per cent of total public expenditure, to education.

In effect, it is the emphasis that has so far been placed on "capital" in the production function that has also given rise to the phrase, "human capital". With the emergence of the new theories on human resource development, capital has now come to be identified with any form of productive investment, whether physical capital or human capital.

#### **Self-Assessment Exercise**

- |                           |
|---------------------------|
| 1. What is human capital? |
|---------------------------|

### **4.3.2 Similarities And Differences Between Physical And Human Capital**

In order to sort out the confusion often associated with physical and human capitals, our focus in this section will be on the similarities and differences between these forms of capitals.

### **Similarities**

By virtue of your education and training, you may consider yourself as a human capital. Do you think you have any similarity with other forms of production? If you take the case of physical capital (for example, land, equipment and facilities), you may realize that both yourself and physical capital, are both means of production, implying that both you as a human capital and other aspects of physical capital can be used to produce goods and services. To this extent, both you as a human capital, and other aspects of physical capital are related and therefore similar. Again, you may realize that both you as a human capital and physical capital are capable of making returns over the investments made on both of you over a period of time.

### **Differences**

The differences between human and physical capitals are highlighted as follows:

First, unlike physical capital, human capital hardly goes into extinction even where it becomes out-dated: the educated labour force is able to adjust and acquire new skills through further education and training.

Also, unlike physical capital, human capital cannot be sold, since it is an integral part of the educated labour force.

Again, unlike physical resources, human capital is not only a useable commodity, but also decides how much can be achieved with the other resources. The implication is that human capital, unlike physical capital, is required in all sectors of the economy.

Lastly, unlike physical capital, human capital is created through investment in education, and the expected income stream is represented by a relatively higher level of life-time earnings.

### **4.3.3 Problems Of Human Capital Development**

Human capital development, particularly in developing countries like Nigeria, has not been an easy task. We would like to take a look at some of these problems.

The first one relates to the rapidly growing population in many developing countries. In most of these countries, the population growth rates exceed by 2 per cent per annum, suggesting that a large proportion of the population is below the working age, and therefore non-productive. This means that a greater percentage of the national resources need to be invested in their education.

The second related problem borders on the issue of mounting unemployment. Harbinson (1974) has even noted that the rate of increase in the labour force, exceed the rate of increase in population growth. This situation creates problems for the human resource development planner, who should be concerned with what to do with the surplus labour, This is also a major source of unemployment in many developing countries.

The next problem relates to the inability of human resource development planners to measure the actual contribution of human capital to national development. It is assumed that education is a major component of human capital. But you may have realized from personal experience that the progress an individual makes in a given occupation does not necessarily depend on education and qualification, but on such other factors as: natural ability, drive, initiative, social background and the policy of the organization in which he may be employed. Indeed many people with a low level of education do succeed, where ability and skill are not directly acquired through formal education.

A final problem area in human capital development is incentives. It is one thing to estimate the needs for manpower of various qualifications, but quite another to induce persons to prepare for, and engage in occupations which are most vital for national growth. For example, the rewards of some categories of personnel and technicians are far from sufficient to attract the numbers needed: the pay of teachers is often inadequate, and the earnings of scientists and engineers, in comparison with administrative officers in government circles, are too low.

The important thing to note about the problems is that they are interrelated. The systems approach should therefore suggest to the human capital analyst that he has to look at the problems from that perspective and evolve solutions along that line. The next section examines some of these solutions.

#### **4.3.4 Dealing with the Problems**

You may ponder on the following suggestions as possible ways of dealing with the outlined problems of human capital development.

As regards the issue of rapidly-growing population, the human capital development strategist must give closer attention to population problems and make suggestions on population control measures.

The case of mounting unemployment, may be contained by considering ways and means of absorbing surplus manpower and directing it into productive activities. This may be achieved by diversifying investments, for example investing in rural development and building modern

industries, following the problem experienced in measuring the actual contribution of human capital to national development, the method involving the estimation of production costs of the labour force, in terms of the returns on the original investment incurred in educating the relevant proportion of the labour force.

On the problem associated with incentives, the human capital development planner must consider deliberate measures to influence the allocation of manpower into high-priority activities and occupations. Such measures may include scholarship support for particular kinds of education, removal of barriers inhibiting people to progress in the occupation, and in some cases outright compulsion.

The urgent need in the area of human capital development, calls for urgent attention to the problems that may frustrate it. The above suggestions may therefore constitute a step towards effective resolution of the problems.

### **Self-Assessment Exercise**

- |  |
|--|
| 1. What are the problems of human capital development? |
|--|



### **4.4 Summary**

The conclusion is that human capital, as a major factor of production, needs a special attention by human capital development strategists, in terms of the militating problems and their possible solutions.

This unit focused on four major areas of human capital development, namely: concept of human capital, similarities and differences between human capital and physical capital, problems associated with human capital development and possible solutions to the problems. It was emphasized that since the problems are interrelated, their solution must involve the systems approach in order to harness the various intervening variables impinging on the effectiveness of human capital, development.

### **Self-Assessment Exercise**

- |  |
|--|
| 1. What is human capital?                              |
| 2. What are the problems of human capital development? |



#### **4.5 References/Further Reading/Web Resources**

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#### 4.6 Possible Answers to Self-Assessment Exercise(S)

##### Answer

1. What is human capital?
2. What are the problems of human capital development?

1. Human capital refers to the personnel or humans (people) who possess knowledge, skills and expertise used in operating the social and economic systems of the society.

2. The problems of human capital include:

(a) Rapidly growing population.

(b) Increasing unemployment.

(c) Difficulty in measuring the contribution of human capital to the economy.

(d) Lack of incentives.

## UNIT 5 EDUCATION AND EMPLOYMENT

### Unit Structure

- 5.1 Introduction
- 5.2 Learning outcome
- 5.3 Main Content
  - 5.3.1 Meaning of Education and Employment
  - 5.3.2 Employment in Educational Institutions
  - 5.3.3 Output of Educational Establishments
- 5.4 Summary
- 5.5 References/Further Reading/Web Resources
- 5.6 Possible Answers to Self-Assessment Exercise(s)



### 5.1 Introduction

The objective of this unit is to discuss the issue of education and employment. We will look at the two concepts, education and employment. We will then discuss employment in educational institutions and then look at the issue of output of educational establishment.



### 5.2 Learning Outcome

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

- Define the terms, education and employment;
- Discuss employment in educational institutions;
- Identify the reasons for the large measure of unemployment in Nigeria.



### 5.3 Main Content

#### 5.3.1 Meaning of Education and Employment.

You have been taught various definitions of education before now. What we will do is to present some practical definitions of education. Fafunwa (1974:17) defines education as “the aggregate of all the processes by which a child or young adult develops the abilities, attitudes and other forms of behaviour which are of positive value to the society in which he lives”. Ogbonnaya in Onwuka (ed) (2000) defined it as the process through which the physical, intellectual, social, emotional and moral abilities of the individual are developed to enable him contribute positively to the development of his society. These definitions of education show that education is supposed to develop in the recipients,

the skills and abilities that will enable them to make a successful living within a particular society.

Many people will define employment as job or work one does to earn a living. But employment means ones regular trade or profession. Education is basic to employment. Educational institutions equip individuals with skills. Competences and attitudes that will enable them earn a living. Arinze in Bosah and Eneasator (ed) (1996:133) remarked that ‘a situation where many graduates from our educational system cannot fix themselves up into any gainful employment shows that the educational system has not done what it purports to do, and should therefore be reorganized.

### **Self-Assessment Exercise**

- |                        |
|------------------------|
| 1. What is employment? |
|------------------------|

### **5.3.2 Employment In Educational Institutions.**

The first point to note here is that educational institutions employ a very large labour force. Educational institutions employ teachers of various categories - Teachers Grade II Certificate holders, Holders of the Nigerian Certificate in Education (NCE), and B.A, B.Sc degrees from various disciplines.

Educational institutions also employ supportive staff such as Educational Administrators, Executive Staff, Clerks, Messengers, Accounting or Finance Officers, Porters etc. Education is the largest single employer of labour in Nigeria. It employs more people than the civil service. For instance, Abia, Anambra, Akwa Ibom, Ebonyi, Enugu, Imo, Delta, Edo and Rivers state each has more than 5000 Post Primary School teachers. Each of these States has also more than 8000 Primary School Teachers.

Education also takes a very large percentage of Recurrent Government Expenditures. In some States, it is up to 40%. Most of these expenditures are incurred through payment of workers salaries and allowances. Education is a general labour -intensive industry and an important one. In Nigeria, education is largely in the public sector since the various State Governments have taken control of Post Primary Schools in the country. The Federal Government has taken control of Primary Schools throughout the country. Government expenditures on education are thus determined by its social programmes. Eze (1983:53) stated that “the Keynesian economics has it that in case of unemployment cause by lack of effective demand, government expenditures on social services has multiplier effects which will generally increase employment depending on leakages. The importance of education as an employer of labour has been further enhanced by government’s expansion of educational services in all parts

of the country. Educational institutions have expanded within the past ten years. We now have the Unity Schools in all States of the Federation. We now have many more Universities, Polytechnics and Colleges of Education spread throughout the country.

### **5.3.3 Output Of Educational Establishment**

In this section, we will consider three phenomena in the Nigerian Employment Market. The first is the high level of employment among some categories of products of educational institutions. The second is the shortage of certain kinds of labour. Thirdly, is that although there is high level of unemployment, this is not uniform throughout the country. In some part of the country like Abia, Anambra, Enugu, Imo, Lagos, Ogun, Oyo, Osun, Delta and Edo, the level of unemployment is quite high. In others like Bayelsa, Sokoto, Taraba, Katsina, Kogi and Adamawa, there is a general shortage of labour of all categories. The question at this juncture is; How do we as experts in economics of education, explain this phenomena from the point of view of the educational system of the country.

The first phenomena in the Nigerian Labour Market, as highlighted by Eze (1983), Arinze in Bosah and Eneasator (ed) (1996) and Nwadeani (2000) is a large measure of unemployment. The figures range from between 25 and 35%. Unemployment figures in Nigeria are always inaccurate and defective. The Federal Ministry of Labour and the Federal Office of Statistics do not have accurate figures of the level or rate of unemployment in Nigeria most employers of labour that have vacancies rarely contrast to the situation in most developed countries like Britain, the United States of America, Canada, France, Sweden where the counterpart Ministries play active roles, not only as a leak between the prospective employer and the employee but also as a data bank in employment.

Unemployment in the country is particularly high with Senior Secondary School Certificate holders because these classes of job seekers do not have any particular skill or skills. They merely acquired general education. Nobody talks of Primary School graduates because this category of people is just starting their education. There is a large measure of expansion in the education sector which is not as much as the expansion in the economy.

A second reason for the large measure of unemployment amongst primary and secondary school holders is because of the content of our educational curricular. Unfortunately, most primary and secondary schools are yet to reorientate themselves for vocational and technical education. Even with the new National Policy on Education, most students in our secondary schools have not embraced technical and vocation education. This is

because of the wrong orientation of students towards technical and vocational education. Most students are not interested in technical and vocational education which is job - oriented.

We must state at this juncture that unemployment is already being observed with respect to graduates of Colleges of Education, Polytechnics and Universities. This is particularly with Arts and Social Science Graduates and not with Science and Science-related discipline, Graduates of Igbo Language, Yoruba, Hausa, History, Archaeology, Dramatic Arts, Music, French, philosophy, Religion, Sociology, Anthropology, Psychology and Political Science find it difficult to secure employment. Another characteristic of the Nigerian unemployment situation is that although there is a large measure of unemployment, there is scarcity of skilled labour. This fact is supported by Eze (1983) who attributed this to the fault of the country's educational system which does not emphasize vocational and technical skills. This is why mechanics, electricians, masons, stenographers, welders etc are in short supply.

The Nigerian Government is also to be blame because of the salaries and incentives offered to those with vocational and technical education. There are no special incentives provided for those with such skills over others who do not possess such skills. This set of graduates do not also rise as fast as those with no skills in the civil service so in the public service, skilled workers tend to lag more behind in terms of promotion opportunity than those without special skill. For instance in the Ministry of Works and Housing; plumbers, electricians, fitters and overseers tends to stagnate in terms of promotion and earnings as compared with general clerical officers or executive officers. It is necessary to point out that even at the higher level in the public service, graduates of Arts and Social sciences who are employed as administrative officers within a short time rise to higher positions and earn more than engineers, architects and graduate teachers.

One other characteristic in the Nigerian Labour Market as noted by Eze (1983) is lack of uniformity in the spread of unemployment amongst the products of our educational system throughout the country. The Southern parts of the country have the higher concentration of educational institutions. There is a high level of unemployment in these parts. For example, there is high level of unemployment in Abia, Anambra, Akwa Ibom, Cross river, Enugu, Imo, Ogun , Oyo, Osun and Lagos States such a situation does not exist in the Northern States because School leavers are not so many.

Employers of labour in Nigeria tend to be tied to government policies which generally favour the employment of people of state of origin. It is no secret that there still exists in the country ethnic and state considerations and sentiments which tend to militate against employment based on merit and the need of the employers. It is sad to note that most state governments of the federation openly and privately pursue this as a policy. Most applicants in some states of the country do not like to seek

employment outside their home states. The reason is because of the attitude of employers of labour towards them. Also, many job seekers feel that they are more secure in their home states.

### Self-Assessment Exercise

1. What are the reasons for the large measure of unemployment in Nigeria?



### 5.4 Summary

In this unit, we have seen that the nature of unemployment in Nigeria stems from lack of proper skill, expansion in educational institutions, faculty curricular and faculty orientation unemployment in the country is particularly high with secondary school graduates although the phenomena is spreading fast among graduates of tertiary institutions. The lack of uniformity in the spread of unemployment among the products of our educational system is due to the fact that employers of labour tend to be tied with government policies.

In this unit, the meaning of education and employment were briefly defined and explained. The nature of employment in our educational institutions was discussed after which the issue of unemployment was comprehensively discussed.

### Tutor Marked Assignments

1. What is employment?
2. What are the reasons for the large measure of unemployment in Nigeria?



### 5.5 References/Further Reading/Web Resources

- Arinze, F. O. M. (1996) Some issues in Educational Planning in H. O. N. Bosah and G. O. Eneasator (ed) Dimensions of Education Planning and Economics of Education, Lagos: Ed Solid Foundation Publishers.
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- Fafunwa, A. B. History of Education in Nigeria London: George Allen and Unwin
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## 5.6 Possible Answers to Self-Assessment Exercise(s)

### Answer

1. **What is employment?** Many people will define employment as job or work one does to earn a living. But employment means ones regular trade or profession. Education is basic to employment. Educational institutions equip individuals with skills. Competences and attitudes that will enable them earn a living.

2. **What are the reasons for the large measure of unemployment in Nigeria?**

- Unemployment in the country is particularly high with Senior Secondary School Certificate holders because these classes of job seekers do not have any particular skill or skills.
- There is a large measure of expansion in the education sector which is not as much as the expansion in the economy.
- A second reason for the large measure of unemployment amongst primary and secondary school holders is because of the content of our educational curricular. Unfortunately, most primary and secondary schools are yet to reorientation themselves for vocational and technical education.
- unemployment is already being observed with respect to graduates of Colleges of Education, Polytechnics and Universities because of the chosen career part, particularly with Arts and Social Science Graduates
- Scarcity of skilled labour.
- The Nigerian Government is also to be blame because of the salaries and incentives offered to those with vocational and technical education. There are no special incentives provided for those with such skills over others who do not possess such skills.
- lack of uniformity in the spread of unemployment amongst the products of our educational system throughout the country.

## MODULE 2

Unit 1	Cost Analysis in Education
Unit 2	Education - Consumption or Investment
Unit 3	Factors Influencing Cost of Education
Unit 4	Cost Benefit Analysis
Unit 5	Measurement of Benefits from Education

### UNIT 1 COST ANALYSIS IN EDUCATION

#### Unit Structure

- 1.1 Introduction
- 1.2 Learning outcome
- 1.3 Main Content
  - 1.3.1 The Concept of Cost in Education
  - 1.3.2 Types of Cost in Education
  - 1.3.3 Rationale for Cost Analysis in Education
- 1.4 Summary
- 1.5 References/Further Reading/Web Resources
- 1.6 Possible Answers to Self-Assessment Exercise(s)



#### 1.1 Introduction

Cost analysis is an indispensable tool in modern educational management, and has become more essential today than ever before. An educational or political leader, who promises universal Primary or Secondary education at a given date without first checking the cost implications, may end up in serious trouble. This unit therefore examines various issues related to cost analysis in education, with emphasis on meaning, types and rationale.



#### 1.2 Learning Outcome

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

- Explain the concept of cost in education
- Categorize education costs into types.
- Discuss the rationale for cost analysis in education.



## 1.3 Main Content

### 1.3.1 The Concept of Cost in Education

Cost in education can be conceptualized from two-related perspectives - direct and indirect. The direct costs include the cost of all items purchased or used for the educational system. From your own experience, you should have realized that a lot of resources (human and materials) are used in the educational system for the production of an educated person. The total value of these resources constitutes the direct cost of education. Nwadiani (2000) is in support of this position, when he noted that the cost in education reflect the real resources (material, human and time) used up in the production of educated individuals, as estimated in monetary terms. The direct costs are sometimes referred to as real costs.

But direct costs are only one side of the equation on cost in education. There is another side, called indirect costs. Remember that the investments made in education could have been used to invest in other sectors of the economy. This means that the cost of education could also be expressed in terms of forgone alternative opportunities in the use of resources. This type indirect cost to education is sometimes called opportunity cost. Given the above explanations therefore, the cost of education could be defined in terms of real cost and opportunity cost, expressed in the following equation.

Cost of Education = Expenditure + Opportunity Costs

#### Self-Assessment Exercise

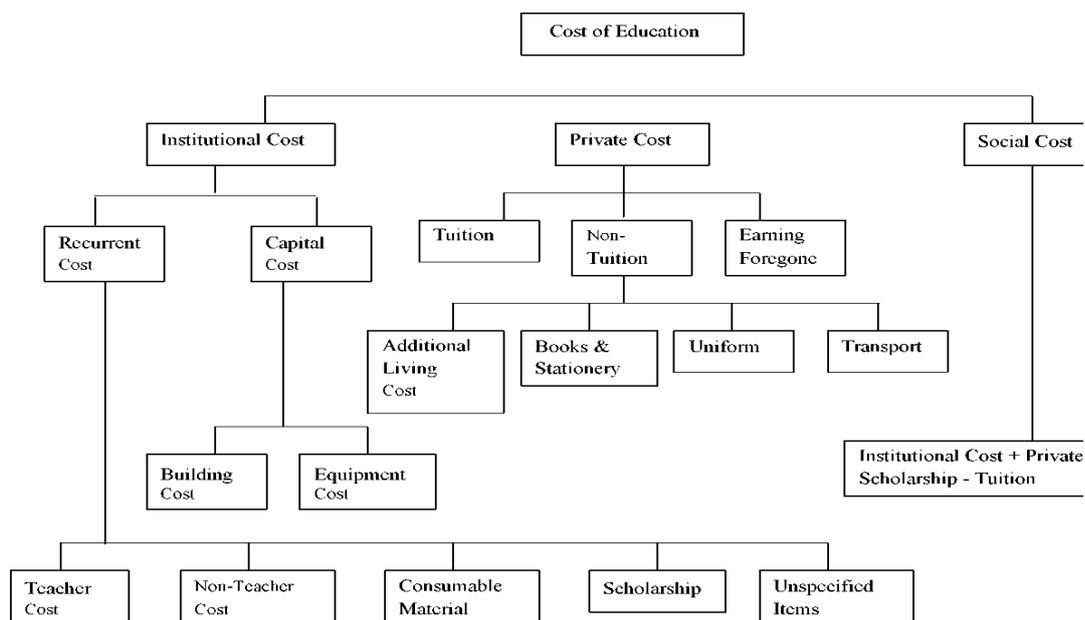
- |  |
|--|
| 1. Explain to a lay man the meaning of the term costs education. |
|--|

### 1.3.2 Types of Costs in Education

This section identifies and examines various types of costs in education. Indeed, there are a variety of ways in which costs in education can be classified. Pandit (1981) has however suggested that no matter the pattern of classification, three main types of education costs exist namely:

- Institutional Cost,
- Private Cost, and
- Social Cost

We shall adopt this pattern as our basis for discussion. The various types are diagrammatically summarized below.



**Fig. 1: Types of Costs in Education (After Pandit, 1981)**

From the diagram above, it could be seen that each of the cost components has other smaller components. It may therefore be necessary to give a brief explanation of each of the major components.

1. **Private Costs:** This is sometimes referred to as household cost. This cost component comprises the money which the family, household or any private body expends on education, as well as the opportunity cost. It should be noted that many households are generally responsible for such things as students tuition fees, students' clothing, feeding, books and stationery, transport fares to school, as well as the income the students forgo in the course of their education. The income forgone to the student is in terms of student's time and other earnings he had forgone by being in school. The student should have been gainfully employed in the production of goods, and services, instead of being in school. Although statistics and data are not readily available on private cost of education, oral evidence shows that many households expend a large part of their resources on education. However, as education becomes more universalized, it is hoped that private cost of education will decline.
2. **Institutional Cost:** This category of cost has two main components, namely: Capital cost and Recurrent costs. Capital costs are associated with durable educational inputs particularly, land, site, utilities, buildings, furniture and equipment, which render services for not less than one year. In determining the cost of these capital inputs, depreciations are usually made on the original cost of each item. This is because the value of most capital goods never remains the same. They depreciate over the years (for example, buildings). So, the costs are adjusted for repairs,

additions and depreciations. Recurrent costs, on the other hand, incorporate expenses on such nondurable items as salaries and allowance, stationeries, consumables, repairs and maintenance, water and electricity bills, etc. It should be noted that recurrent cost items, particularly salaries and allowances, consume a large proportion of total educational expenses. For example, Aghenta (1991) in Nwadiani (2000) show that in Ceylon, 94% of recurrent expenditures go to teachers' salaries alone, while in Morocco, it is as high as 95%.

3. **Social Cost:** This is usually estimated through appropriate adjustments in private and institutional costs. Social cost is often regarded as the total cost of education to the entire society. The implication is that both institutional and private costs are regarded as social cost, except that the costs of scholarship and tuition are removed from institutional and private costs, respectively.

### Self-Assessment Exercise

1. Do a categorization of education costs into types.

### 1.3.3 Rationale For Cost Analysis in Education

It is not for nothing that cost analysis is carried out in education. The following reasons therefore justify the introduction of cost analysis in education. The following reasons therefore justify the introduction of cost analysis in education.

1. **Costing and Testing the Economic Feasibility of Educational Plans:** Indeed, Coombs and Hallak (1972) recognizes this reason for cost analysis as the primary one. Many countries usually set unrealistic and unrealizable plan targets without proper costing. Effective cost-analysis will ensure that plans are matched with available resources.
2. **Costing Educational Reforms:** It is common to see some countries embark on major educational reforms, without first considering the cost implications. This has happened in Nigeria with the case of the U.P.E. of 1976, and the U.B.E scheme of 1999 where no meaningful cost analysis in terms of teacher demand and supply, pupils' enrolment, buildings, equipment and facilities, etc, was carried out. This accounted for the various lapses experienced in the implementation of these programme. Cost analysis could have given the direction of implementation.
3. **Encouraging Efficiency in the Utilization of Resources:** Education is competing for resources with other sectors of the economy. Efficiency criteria demands that investments should only be made in areas where there are minimum wastages. Cost analysis is an indispensable tool in this direction, because it

ensures that factors that can lead to wastages are identified and eliminated.

4. **Adapting Innovations to Education:** Today, there are numerous technological innovations which could be adopted to education (for example, computer and multi-media facilities). Taking advantage of such innovations is often difficult. In all events, cost considerations could help in reaching decisions to alter the existing practices and adapt or adopt the innovations.



#### 1.4 Summary

Although cost analysis is an indisputable tool in modern educational management, it has no special magic operation to remedy faulty conditions: it can only contribute importantly to getting more and better education from whatever resources are available

In this unit, our focus has been on cost in education as regards the meaning of cost in education, types of costs in education and rationale for cost analysis in education. The keen competition among the various economic sectors suggest that educational administrators should pay more attention to cost analysis to ensure that resources available for education are judiciously utilized.

#### Tutor-Marked Assignment

1. What do you mean by Costs in Education
2. Categorize education costs into types and give a brief explanation of each.
3. Why is cost analysis necessary in education?



#### 1.5 References/Further Reading/Web Resources

- Aghenta, J. A. (1992). Principles and practice of Educational Planning: Focus on Developing Countries. Benin-City: NSEP
- Coombs, P.H. and Hallak, J. (1972). Managing Educational Costs. London O.U.P
- Nwadiani, M. (2000). Economic Dimension of Educational Planning: Theory and Practice. Benin-City: Monose Pub.
- Pandit, H. M. (1981). Cost of Education in Nigeria. (Mimeograph). Department of Educational Management: University of Ibadan.



## 1.6 Possible Answers to Self-Assessment Exercise(S)

### Self-Assessment Exercise

1. Explain to a lay man the meaning of the term costs education.

The total value of these resources constitutes the direct cost of education. Nwadiani (2000) is in support of this position, when he noted that the cost in education reflect the real resources (material, human and time) used up in the production of educated individuals, as estimated in monetary terms. The direct costs are sometimes referred to as real costs.

2. Do a categorization of education costs into types.

**1. Private Costs:** This is sometimes referred to as household cost. This cost component comprises the money which the family, household or any private body expends on education, as well as the opportunity cost. It should be noted that many households are generally responsible for such things as students tuition fees, students' clothing, feeding, books and stationery, transport fares to school, as well as the income the students forgo in the course of their education.

**2. Institutional Cost:** This category of cost has two main components, namely: Capital cost and Recurrent costs. Capital costs are associated with durable educational inputs particularly, land, site, utilities, buildings, furniture and equipment, which render services for not less than one year.

**3. Social Cost:** This is usually estimated through appropriate adjustments in private and institutional costs. Social cost is often regarded as the total cost of education to the entire society. The implication is that both institutional and private costs are regarded as social cost, except that the costs of scholarship and tuition are removed from institutional and private costs, respectively.

## UNIT 2 EDUCATION - CONSUMPTION OR INVESTMENT

### Unit Structure

- 2.1 Introduction
- 2.2 Learning outcome
- 2.3 Main Content
  - 2.3.1 Conceptualization
  - 2.3.2 Education as Consumption
  - 2.3.3 Education as Investment
- 2.4 Summary
- 2.5 References/Further Reading/Web Resources
- 2.6 Possible Answers to Self-Assessment Exercise(s)



### 2.1 Introduction

Controversies sometimes exist as to whether education is consumption or investment. This unit resolves that controversy by highlighting the specific differences between education as an investment. In the end, it is stressed that both dimensions of education are however complementary, since they help in accelerating the pace of economic development.



### 2.2 Learning Outcome

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

- Explain some economic concepts associated with the theme of the unit, for example, production, consumption, savings and investment
- Describe education as consumption
- Explain the meaning of education as investment.



### 2.3 Main Content

#### 2.3.1 Conceptualization

Four key economic concepts which are fundamental to answering the question on whether education is consumption or investment demand our attention here, namely: production, consumption, savings and investments.

In every country, people are engaged in one form of labour or another. In the process, they produce **goods** or **services**. In factories and industries,

for example, they produce furniture, electronics, textiles, etc; those who work in schools, hospitals or banks do not produce such tangible goods: they produce services. **Production**, in economic parlance, refers to the total output of such goods and services. It should be noted that a good proportion of a country's production is immediately consumed to satisfy people's needs, while some are withheld for later consumption. These are then referred to as savings (as for example, when you save part of your salary to buy a motorcycle). That part of production which is not saved enters, directly or indirectly, the production process to produce more goods and services. For example cement, which result from one production process, re-enters another process to produce blocks for a public building. The public building, in turn, is used to produce further services (e.g. schooling, banking, etc.). Within this context, the cement and the public building become **investment goods**. Investment could then be regarded as the act of increasing the stock of productive capacity. It is sometimes referred to as capital formation. It is sometimes referred to as capital formation. Your bank savings could be regarded as a form of investment because the bank uses the money to produce other goods and services.

### 2.3.2 Education as a Consumption

Given the explanation of the four major concepts of production, consumption, saving and investment, where do you think education should be classified. You may be right to suggest, that education should be classified as consumption.

From an individual's point of view, education can be classified as consumption. This is because an individual uses education in a number of personal ways: he could use it to widen his knowledge, achieve personal satisfaction or life ambition, maintain a certain level of enjoyment, attain a societal status or just acquire education for the fun of it. In all these, economic benefits of education are not considered. When education is classified as consumption, the main focus is on enabling an individual to enjoy a better life, without expecting any direct or indirect financial benefits from acquired education. Thus, an individual, who, after qualifying as a graduate engineer, still enrolls on a diplomas programme in social works, may be doing so just for the knowledge in social works and not for any monetary attachment. Similarly, a Nigerian Certificate in Education holder who has already attained a Grade-Level 14 job, but who enrolls for an undergraduate programme, may be doing so merely for the knowledge, and probably for status-symbol, and not for any monetary attachment, types of education which do not contribute to either better employment or higher financial remunerations, could be described as consumption.

It may be noted that education as consumption is not popular in developing economies, where the conditions for basic existence are generally lacking. Where the consumption aspects of education are predominant as in the developed economies, most of the populace have already achieved high standard of living, and merely look on to education as a social service, and hence a consumption good. The inherent advantages of the consumption type of education, make it imperative for any country to aspire for it. Some of these advantages are summarized below:

- Enhancement of quality of life;
- Realisation of one's potentialities;
- Rapid economic and national development due to the presence of highly knowledgeable populace.

The above advantages notwithstanding, education for its own sake, as a consumption good only, is a luxury which no developing country can easily afford in the face of the competition for scarce and limited resources. Rather, an educational system which satisfies the criteria of a sound economic investment may prove a better choice.

### **2.3.3 Education as an Investment**

All types of education do not fall into the category of consumption. There are certain levels and types of education that provide the individual with skills and knowledge which enables him to improve his capacity to produce more goods and services. For example, a knowledge of agricultural science and skills in cultivation would increase the farmer's productivity. What we have in mind here is investment.

Investment is what a rational individual does, that is putting money in a business with the aim of making profits. In education, investment, according to Eneasator (1996) refers to the act of putting money or resources into education with the aim of making profits or returns. Investment is therefore characterized by economic motives. This type of education contrasts with the consumption type of education, where non-economic objectives predominate. An individual who sees education as an investment embarks on it with the aim of enhancing his economic status through increased salary or better job prospects. Similarly, a government that sees education as an investment, commits its resources into it with the aim of improving its national economy through educated labour force. In effect, the plan to invest in education by many governments is to develop human skills, knowledge and expertise so as to increase the rate of economic development.

In Nigeria, the realization that education is an investment makes the government to take many bold steps in improving its manpower stock

through education, for example, the Ashby Commission was set up in 1959 to explore the manpower needs of Nigeria and make recommendations. The Commission accordingly recommended an investment in both secondary and tertiary education as a means of improving the national economy. Similarly, in 1962, the National Manpower Board was set up to take responsibility for the manpower development in the country. Since then the board has carried out a number of studies and surveys on the manpower problems in the country with a view to arriving at a more reliable method of estimating the high level manpower requirements (Akangon 1981).

Given the foregoing discussion, you may think on your own what consider you to be the benefits of seeing education as an investment. Your consideration should not fail to highlight the following areas:

- It is an investment to an individual because his earning capacity and income are enhance;
- It is an investment from the national point of view, because the increase of productivity and the supply of qualified manpower contribute to national development;
- Type of education categorized as investment, usually serve as consumption education, too. Thus, in addition to the economic benefits, the individual enjoys the non-economic benefits of education, which make it a consumption good.



## 2.4 Summary

Education for its own sake - as a consumption good only - is a luxury which only few developing countries can afford. In the competition for the scarce and limited resources, an educational plan which satisfies the criteria of a sound economic investment has a greater chance of success. The educational economist therefore, should be realistic and ensure a proper blend between education as consumption and education as an investment.

This unit answered the controversial question: Is education a consumption or an investment? As a consumption commodity, the non-economic objectives of education predominate, while as an investment, emphasis is on the economic objectives. This means that education is both a consumption and an investment, except that the consumption type of education is more prevalent in the developed economies, while the investment type is characteristic of developing economies.

### Self-Assessment Exercise

The following terms are often used in economics of education production, consumption and investment. How would you explain them to a non-expert in your field?

1. Explain the way in which education is an investment.

**Tutor-Marked Assignment**

1. Explain in your own words, the following concepts:
  - i. Production
  - ii. Consumption
  - iii. Savings and Investments
2. Characterize education as a consumption commodity and as an investment.

**2.5 References/Further Reading/Web Resources**

Akangon, S. D. (1981). *The Economics of Educational Planning in Nigeria*. (Mimeograph). Ibadan: Dept, of Educational Management.

Eneasator, G. O. (1996). *The Economics of Education*. In H.O.N. Bosah and G. O. Eneasator (eds.) *Dimensions of Educational Planning and Economics of Education*. Lagos: Ed-Solid Foundation Pubs.



## 2.6 Possible Answers to Self-Assessment Exercise(S)

The following terms are often used in economics of education production, consumption and investment. How would you explain them to a no expert in your field?

**Production**, in economic parlance, refers to the total output of such goods and services. It should be noted that a good proportion of a country's production is immediately consumed to satisfy people's needs, while some are withheld for later consumption. . It should be noted that a good proportion of a country's production is immediately consumed to satisfy people's needs, while some are withheld for later consumption.

From an individual's point of view, education can be classified as **consumption**. This is because an individual uses education in a number of personal ways: he could use it to widen his knowledge, achieve personal satisfaction or life ambition, maintain a certain level of enjoyment, attain a societal status or just acquire education for the fun of it. In all these, economic benefits of education are not considered. When education is classified as consumption, the main focus is on enabling an individual to enjoy a better life, without expecting any direct or indirect financial benefits from acquired education. It may be noted that education as consumption is not popular in developing economies, where the conditions for basic existence are generally lacking.

**Investment** is what a rational individual does, that is putting money in a business with the aim of making profits. In education, investment, according to Eneasator (1996) refers to the act of putting money or resources into education with the aim of making profits or returns. Investment is therefore characterized by economic motives. This type of education contrasts with the consumption type of education, where non-economic objectives predominate. An individual who sees education as an investment embarks on it with the aim of enhancing his economic status through increased salary or better job prospects. Similarly, a government that sees education as an investment, commits its resources into it with the aim of improving its national economy through educated labour force. In effect, the plan to invest in education by many governments is to develop human skills, knowledge and expertise so as to increase the rate of economic development.

## UNIT 3 FACTORS INFLUENCING COST OF EDUCATION

### Unit Structure

- 3.1 Introduction
- 3.2 Learning outcome
- 3.3 Main Content
  - 3.3.1 The Demand for Education and Teacher Force
  - 3.3.2 Operation Techniques, Size of Enrolment and Institutional Variables
  - 3.3.3 National Aspirations and Inflation as Factors Influencing Cost of Education
- 3.4 Summary
- 3.5 References/Further Reading/Web Resources
- 3.6 Possible Answers to Self-Assessment Exercise(s)



### 3.1 Introduction

This unit discusses factors influencing cost of education. Actually, the cost of education per learner has continued to rise and there are signs that it will come down in the near future. The factors influencing the cost of education include the demand for education service, teacher force, operation techniques, size of enrolment of learner, institutional variables, national aspiration and inflation.



### 3.2 Learning Outcome

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

- List the factors influencing costs in education
- Discuss the factors influencing costs in education



### 3.3 Main Content

#### 3.3.1 the Demand for Education and Teacher Force

One of the things you need to know is that the demand for education is one of the factors influencing costs of education. In the year 2000, the number of students seeking admission into Nigerian Universities was over 50,000 but in the year 2003, it might increase to 70,000. Politicians now use education as a vote catching weapon. Increased demand for education will inevitably mean expansion of educational facilities. Expansion of

educational facilities at all levels, to a great extent, accounts for rising cost of education. Education has been described by Nwadiani (2000:73) as an instrument of political socialization and economic development. There has been tendency by the Nigerian government to democratize educational opportunities. This fact has led to increase in public education expenditure.

A second factor influencing cost of education is teacher force. This has been described by Nwadinani (2000) as the most dominant factor. Education industry, as Nwadiani stated, is labour intensive. This according to him is responsible for the rising salary bill of teachers which takes over 90 per cent of recurrent cost of primary and secondary education put together. It is obvious that more qualified and experienced teachers, receive higher salary than the less qualified and inexperienced. There is lack of significant salary differential among different categories of teachers with the same qualification. This fact increases the weight of teacher salary on total cost of education.

### **3.3.2 Operation Techniques, Size of Enrolment of Learners and Institutional Variables**

Let us take up the first issue that is the operation techniques. Let us start it by saying that most educational institutions, particularly, universities are very resistant to change. In other words, they are very conservative. They adopt their own operation technique and hardly change it. The adopted operation technique continues to be the same for many years relying on handicraft technology.

You may be aware that some teachers are more resistant to change than illiterate rural farmers. They fear to try out innovations, teachers know that they must be in the class to direct the learning before the students' However, with improved technologies and mass application of electronic system to instruction, the presence of the teacher is diminishing. In pre-primary and primary school, the teacher is still very much needed. He plays a very dominant role in this type of situation, the cost of education increased.

Another factor influencing cost of education is the size of enrolment of learners. It is obvious that where enrolment increase then the unit cost of education decrease. In other words, the larger the size of enrolment, the smaller the unit cost of education. In Nigeria, we have small schools in some states which are costly to run. However, because of government policy to provide for all, she (the government) continues to maintain the small schools.

Another factor influencing cost of education is what is called institutional variables. Institutional variables will include such factors as age of school, design of buildings, curriculum in operation, location of school and

studentteacher ratio. Age of school has a strong influence on capital cost of education. New schools need more learning facilities, equipment and instructional materials to make learning process more meaningful. It is necessary to point out here that age also influences recurrent cost particularly with respect to maintenance.

In situations where the design of the school building is very complex, we find an increase in the cost of education. Similarly, schools where the curriculum is technical oriented, the cost of education will increase. Technical education

requires more money to purchase or procure the inputs into the system. Technical school require specialized structures and workshops. Student teacher ratio varies according to the educational level and courses offered. The student teacher ratio in a secondary school will obviously be lower than we find in a university. Student- teacher ratio actually has a strong influence on the cost of education. The higher the student-teacher ratio, the lower the cost of education.

### **3.3.3 National Aspirations and Inflation as Factor Influencing the Cost of Education**

You need to be aware that national aspirations are another factor influencing the cost of education. A nation's aspirations may include the need to modernize, the need to acquire military powers, the need to excel in power and steel, the need to be self-sufficient in food production to all its citizens.

Most national leaders feel that the shortest route to development is formal education. Nigeria is one of those countries whose aspiration is to use education to bring about development. It is clearly stated by the Federal Republic of Nigeria (1988:5) in her National Policy on Education that "education has been adopted as an instrument for effecting national development". Nigeria has joined other nations of the world to democratize education. This fact has increased the nation's budget for education.

Coombs and Hallack (1987) and Nwadiani (2000) have identified three indicators which show the level of national education aspirations. According to them, these are the proportion of Gross National Product that is devoted to public education expenditure, the share of the total public budget by education and the unit cost of education per citizen in any country. These efforts, according to Nwadiani (2000), indicate the priority given to education which at the end of the day affects the cost. Inflation is another factor influencing the cost of education. Inflation means more money than the available goods. In Nigeria, inflation has

brought a lot of damages to education. We discover that every year, more funds are allocated to the education sector. This has become meaningless as a result of the purchasing power of the naira. Billions of naira purchase very little of education service. Books and laboratory equipment that were sold for N5 million naira the previous year, cost N15 million in the following year.

One area where we have the greatest influence of inflation on education cost is the area of personnel emoluments. In order to raise the salaries of teachers, to be in line with rising prices, other aspects of education industry suffer. The building of hostels, classrooms and purchase of equipment are slowed down or at times forgotten. Most educational institutions are unable to purchase technology equipment, video tapes, computers and its accessories. The result is that the quality of education is seriously affected.

Let us take up the issue of capital projects like the construction of hostel blocks. A bundle of wood which sold for N5000 a bundle in 1996 was N20,000 in the 2000. A bag of cement was N550 in 1996. In 2000, it was over N600 a bag. All these have increased the cost of building and maintenance of School buildings. Thus, the quality of education is seriously affected.

### Self-Assessment Exercise

- |  |
|--|
| 1. Identify factors influencing cost of education in Nigeria |
|--|



### 3.4 Summary

In this unit, the factors influencing the cost of education were presented and discussed. The demand for education service, teacher force, operation technique, size of enrolment of learners, institutional variables, national aspirations and inflation were seen as factors influencing the cost of education.

### Tutor-Marked Assignment

1. Identify the factors influencing the cost of education Nigeria
2. Explain how the demand for education and inflation can be factors influencing the cost of education.



### **3.4 References/Further Reading/Web Resources**

Coombs, P. H. (1985) *The World Crisis in Education: The View from the Eighties*, London: Oxford University Press.

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### **3.6 Possible Answers to Self-Assessment Exercise(S)**

#### **Answer**

Factors influencing the cost of education include:

- The demand for education service,
- teacher force,
- operation technique,
- size of enrolment of learners,
- institutional variables,
- national aspirations and inflation

## UNIT 4 COST BENEFIT ANALYSIS

### Unit Structure

- 4.1 Introduction
- 4.2 Learning outcome
  - 4.4.3 Main Content
  - 4.3.1 Meaning of Cost Benefit Analysis
  - 4.3.2 Indirect and Intangible Benefits to Education
  - 4.3.3 Advantages of Cost Benefit Analysis
- 4.4 Summary
- 4.5 References/Further Reading/Web Resources
- 4.6 Possible Answers to Self-Assessment Exercise(s)



### 4.1 Introduction

This unit presents the meaning of cost benefit analysis with particular reference to education. It discusses the advantages of cost benefit analysis and points out the possible indirect and intangible benefits to education.



### 4.2 Learning Outcome

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

- Define the concept “cost - benefit”
- Explain what cost-benefit concept to education entails
- Discuss the advantages of cost benefit analysis.



### 4.3 Main Content

#### 4.3.1 Meaning of Cost Benefit Analysis

In unit one, you learnt what costs in education mean. You were also exposed to types of costs in education. Here, you will study the meaning of the concept “Cost Benefit”. Cost - benefit as define by Prest and Turvey (1965) is a practical way of assessing the desirability of projects, where it is important to take a long view (in the sense of allowing for side effects of many kinds on many persons, industries, regions, etc) that is, it implies the enumeration and evaluation of all relevant costs and benefits. This simply implies the ratio of cost to the benefit. If the output ratio is higher than the cost then the effect is said to be positive; if less, it is negative.

Applying the cost-benefit concept to education entails an evaluation of the cost of education to the benefit derivable form expenditure on education. This in itself is a more complex problem than applying the

theory to ordinary investment. Expenditures as indirect productive ventures or even in utilities such as electricity, railways, dams, etc. Expenditure on education is both a social and a productive investment and so the direct cost benefit is more complex and diffused. (Eze: 1983).

Before we go further in this discussion, let us for a moment look at the important elements in cost benefit analysis. These are the desirability of the expenditure, the cost, the output (benefit) and the side effects. These issues, according to Eze (1983), though different, are inter-related particularly with respect to expenditures on education.

In the definition of cost benefit analysis as presented above, we saw that one of the issues is the desirability of the project. In our present context, the project is education. Investment in education is generally considered as being desirable because of the crucial role that education plays not only in helping to develop an individual who has acquired it, but also the impact of education on the society at large. Ogbonnaya (2002:3) stated that education helps an individual (who has acquired it) to develop his potentials. As individual acquires education, his social status is enhanced than would have been the case had he been an illiterate. The higher the level of education enhances the earning capacity of an individual. In other words, education helps an individual improve his income, the more so if the education acquired is a functional one.

Another element to be considered in cost-benefit analysis is cost. Cost includes all expenditures in education such as salaries of teachers and those connected with educational administration at all levels. It also includes expenditures on education buildings as well as those on teaching aids such as equipment, books, journals, pamphlets, periodicals, video tapes, microfilms, projectors etc. Similarly cost in economic terms includes opportunity cost, that is, costs in alternative investments and expenditures. For instance, funds voted for education could in the alternative, be spent on industrial' development, infrastructural facilities such as roads, bridges, railways, post offices etc or in any other sectors of the economy.

Eze (1983) stated that output in relation to cost is the end product of the educational system namely, the primary school, the secondary school and tertiary educational institution graduates. One must also include the side effects because investment 'in education is both a social and productive expenditure. For instance, if a boy attended a school system what he learnt in form of community participation in projects, leadership and honesty may be passed on to the community or parents who would gain from his knowledge.

### **Self-Assessment Exercise**

What do you understand by cost-benefit analysis?
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### 4.3.2 Indirect And Intangible Benefits to Education

A list of the possible indirect and intangible benefits to education as pointed- out by Sheehan (1973:46) includes the following:

1. Education raises the productivity and incomes of workers who receive education, where through the diffusion of skills or the reorganization of work procedures.
2. Education promotes technical change (and thus, ultimately productivity and output growth) in various ways ranging from the undertaking of research and development to the spread of knowledge through literacy.
3. Education increases allocative efficiency, by increasing the flexibility and mobility of the labour force, in response to changes in the demand for labour.
4. Education brings about many other gains of a social and economic character, increased social cohesion, stability, democratic values, etc.

### 4.3.3 Advantages of Cost Benefit Analysis

Let us now discuss the advantages of cost benefit analysis. The first point to note is that cost-benefit analysis is a ready tool for the estimation of the rates of return to different levels and types of education. Eresimadu in Bosah Eneasator (1996) stated that cost benefit analysis is used for the evaluation of newly developed educational media. The human capital theory, according to him, states that investment in education enhances the skills of individuals and therefore raises their productivity. In other words, education is directly and positively linked with productivity. The more educated the individual, the more productive he becomes. In order to measure the rate of return of the investments' of the individual in education, Eresimadu in Bosah and Eneasator (1996) stated, the benefits of education in additional earnings made by the individual is compared to the cost of his education.

Cost benefit analysis has an advantage of considering other options and alternatives before making a decision on where to invest any money in education. It therefore provides a rational basis for decision making. It provides educational planners with solid guidance whenever they are planning education. However, cost-benefit analysis is criticized for its insensitivity to the other benefits of education which are non-economic. Psacharopoulos (1973, 1981, 1985) in Eresimadu (1996) conducted and analysed numerous studies from developing countries in different regions of the world using cost-benefit analysis. The table below gives average estimates of the private and social rates of return by level of education for countries in the different regions.

**Table 1: Average Estimate of Private and Social Rates of Return by Level of Education for different Countries.**

Region/Countr	Social			Private		
	Primar	Secondar	High	Primar	Secondar	High
Africa	26	17	13	45	26	32
Asia	27	15	13	31	15	18
Latin America	26	18	16	32	23	23
Intermediate	13	10	08	17	13	13

Advanced NA 11 09 NA 12 12

Note NA = Not Available Because of NO Control Group of illiterates  
(Adapted from Eresimadu in Bosah and Eneasator (ed) 1996 p. 144).

Psacharapoulos in Eresimadu (1996) made the following consistent findings from his studies:

1. The investment in Education is very profitable; rates of return to investment in education are well above the benchmark (10%) rates of return to investment capital.
2. The social and private rates of return to primary education are highest among all education levels.
3. Private rates of return are higher than social rates of return at all levels of return, particularly at the university level.
4. In developing countries, the average return to a given level of education is higher than that in developed countries.
5. The rates of return to women education are higher than those for men in developed countries.
6. At the secondary level, the average rate of return to the traditional academic curricular (16%) is higher than that for the vocational technical curricular (12%). At the higher education level, rates of return for programmes in humanities and social sciences are higher than those for technical subjects.

### SELF ASSESSMENT EXERCISE

Discuss the advantages of cost-benefit analysis



#### 4.4 Summary

Although cost - benefit analysis has an advantage of considering other options and alternatives before making a decision on where to invest money in education, it has been criticized for its insensitivity to the other benefits of education which are noneconomic. However, cost-benefit analysis is a ready tool for the estimation of the rates of return to different levels and types of education.

In this unit, our focus has been on the meaning, advantages and criticisms of cost-benefit analysis. We saw that applying the cost benefit analysis to education to the benefit derivable from expenditure on education. Investment in education was generally considered as being desirable

because of the crucial role that education plays not only in helping to develop an individual who has acquired it but also the impact of education on the society at large.

### **Tutor Marked Assignments**

1. What do you understand by cost-benefit analysis?
2. What is cost in education?
3. Discuss the advantages of cost-benefit analysis.



### **4.5 References/Further Reading/Web Resources**

- Eze, A (1983) *Economics of Education: The Nigerian Experience*, Owerri: New Africa Publishing Co. Ltd.
- Eresimadu, F. N. J (1990) *Finance and Cost Concepts in Education* in H. O. N. Bosah and G. O Eneasator (Ed) *Dimensions of Educational Planning and Economics of Education* Lagos: Ed. Solid Foundation Publishers.
- Ogbonnaya, N. I (2002) *The Concept of Education and Teaching* in C. J. A Onwuka (Ed) *Introduction to Education: The Nigerian Perspective*, Enugu: Ugovin Publishers
- Prest, A.R. and Turvey, R (1965) “Cost - Benefit Analysis: A Survey” *Economics Journal* (75), December, 683 - 735.
- Psacharapoulos, G (1973) “Returns to Education: An International Comparism” San Francisco: Jossey- Bass
- Psacharapoulos G. (1981) *Returns to Education: An updated International Comparism* *Comparative Education* 17(3).
- Psacharapoulos, G. (1985). “Returns to Education: A Further International update and Implications” *Journal of Human Resources* 20 (4)



#### 4.6 Possible Answers to Self-Assessment Exercise(S)

1. **What do you understand by cost-benefit analysis?**  
Cost - benefit as define by Prest and Turvey (1965) is a practical way of assessing the desirability of projects, where it is important to take a long view (in the sense of allowing for side effects of many kinds on many persons, industries, regions, etc) that is, it implies the enumeration and evaluation of all relevant costs and benefits. This simply implies the ratio of cost to the benefit. If the output ratio is higher than the cost then the effect is said to be positive; if less, it is negative.
2. **Discuss the advantages of cost-benefit analysis**
  - The first point to note is that cost-benefit analysis is a ready tool for the estimation of the rates of return to different levels and types of education.
  - Cost benefit analysis is used for the evaluation of newly developed educational media.
  - The human capital theory states that investment in education enhances the skills of individuals and therefore raises their productivity.
  - Education is directly and positively linked with productivity. The more educated the individual, the more productive he becomes.
  - In order to measure the rate of return of the investments' of the individual in education, the benefits of education in additional earnings made by the individual is compared to the cost of his education.
  - Cost benefit analysis has an advantage of considering other options and alternatives before making a decision on where to invest any money in education. It therefore provides a rational basis for decision making.
  - It provides educational planners with solid guidance whenever they are planning education.

## UNIT 5 MEASUREMENT OF BENEFITS FROM EDUCATION

### Unit Structure

- 5.1 Introduction
- 5.2 Learning outcome
- 5.3 Main Content
  - 5.3.1 The Economic Benefits of Investment in Education
  - 5.3.2 Method of Collecting Data on the Earnings of People Non-Economic
  - 5.3.3 Benefits of Investment in Education
  - 5.3.4 Disbenefits of Education
- 5.4 Summary
- 5.5 References/Further Reading/Web Resources
- 5.6 Possible Answers to Self-Assessment Exercise(s)



### 5.1 Introduction

The investments we make in education produces some benefits to both the individual who benefits from education and the society at large. Basically, there are two types of benefits from education. These benefits are economic and non-economic. This unit discusses the economic and non-economic benefits of investments in education.



### 5.2 Learning Outcome

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

- Discuss the economic benefits of investment in education
- State some of the non-economic benefits of investment in

education.



### 5.3 Main Content

#### 5.3.1 The Economic Benefits of Investment in Education

You must be aware of the benefits of education. At least, you are offered employment. You live in a decent home and can acquire for yourself some of the good things of life. Let us at this juncture begin to think about the wider economic benefits of education to the individual and society. The economic benefits of investing in education are reflected by the increase in income of educated people. This increase in income is due to improvement in the skills of the educated which of course increase their

productivity at work. Weibrod (1986) stated that “education widens employment possibility to technological change and thereby the ability to remain employed”. The direct benefit of education to society is the higher productivity of educated workers and the additional contributions to national income over their entire working lives (Psarcharopoulos in Nwadiani, 2000).

Nwadiani (2000) stated that economic benefits lend themselves to easy measurement. According to him, what is usually done is to use the earnings of workers. Actually, the use of earnings to measure the direct benefits of education is based on the assumption that the productivity of workers is reflected in their earnings/incomes. There is also an extended assumption as

noted by Nwadiani (2000) that additional earnings, measure in a proxy manner higher output. One needs to point that earnings are determined not only by educational attainment. The experiences of many people have shown that there are other important variables that also determine earnings. These include age, experience, on-the-job training, natural ability, attitudes, motivation, social class, sex, type and place of work, socio-economic background of workers and family connection.

The easiest way to measure the direct benefits of education according to Nwadiani (2000) is to construct an age-earnings profile. This should be done for educated and uneducated workers of the same age group. Age-earnings profile is important because it shows the trend in workers earnings throughout their working life-span.

### **Self-Assessment Exercise**

- |   |
|---|
| 1. What are the economic benefits of investment in education? |
|---|

### **5.3.2 Method Of Collecting Date on The Earnings of People**

If one wants to collect data on the earnings of people from the time, they enter the labour force to when they entire, two approaches are usually adopted. These are the longitudinal and cross-section methods.

The longitudinal method is the one in which data are collected right from the time a person starts work till when he/she retires. For example, the income of a worker who joins the work-force at the age of 32 years post-graduation from a university till when he retires at the age of 65 are collected. That is, data on his income would be collected for a period of 33 years. The longitudinal approach has been described as very tedious because it takes a long time to study the changes income. Researches may not have all the time to embark on such a study. Also, the researcher may have died before the end of data collection. So, the longitudinal approach

has its own problems.

The cross-sectional approach appears to be very favoured. Nwadiani (2000) points out that in this approach, data on earnings are collected from a sample of workers of different age groups. The collected data, according to him, are used to construct an age-earning profile with the aid of the calculated age-earning streams by plotting a graph taking into consideration their educational levels. The value of this cross-section data is that the attendant problem of dynamics in the value of money is avoided (Nwadiani, 2000).

### 5.3.3 Non-Economic Benefits of Investment in Education

Investment in education also has some non-economic benefits. Actually, they are benefits that individuals, families, neighbours, communities and society derive from in education. For the individual; the non-economic internal and external. The individual gets internal psychic satisfaction for receiving a particular type or level of education. The individual gets widened employment possibilities, decreased unemployment, improved fringe benefits and working conditions, improved health and longer life, improved use of leisure time, efficient consumer behaviour and improved ability to manage personal assets.

Families also benefit from education. For instance, there are improved child care services which schools provide while mothers are at work. There are improvement of the health of wives/mothers and their children. There is effective control of family size with planned fertility behaviour. There is also improvement children are learning as a result of supervision at home by parents. There is also good neighbourliness to other families and strangers.

Neighbours and communities also benefit from the education of an individual or individuals children of neighbours acquire information from the educated. They benefit from counselling services. The educated teach and spread new farming techniques to their communities. They participate actively in community development efforts. Some of the educated people who find themselves in good positions use their education to better their communities.

The non-economic benefits which society derive from education include very high citizen participation in democratic political process, social cohesion, reduction in crime rate as a result of the social norms and values inculcated in the educated, appreciation of citizens of the assets and liabilities of society.

#### **Self-Assessment Exercise**

- |   |
|---|
| 2. List the non-economic benefits of investment in education. |
|---|

### 5.3.4 Disbenefits of Education

You have seen that education has both economic and non-economic benefits. You need to also learn that education also has what is called “Disbenefits. Obviously, there are some disbenefits of education to individuals, families, communities and society individuals; we find out that many school leavers have no saleable skills. Hence, they remain unemployed. Such school leavers are those who read Philosophy, Psychology, Religion, History, Archaeology, and Sociology. The situation of unemployment makes many youths frustrated. Parents too, who rely on their children are disappointed when they discover that their children cannot get employed after graduation- Nwadiani (2000) pointed out that in developing countries, more and more school leavers are becoming victims of unemployment as a result of what he called compulsory miseducation.

We also find that school leavers migrate from the rural areas to the urban centres in search of employment. Even graduates who studies courses like Agriculture migrate to the urban centres for employment. These graduates’ distaste rural life more than their counterparts who are illiterates. As they migrate to urban areas, they swell up the number of those who are unemployed in the urban centres.

It is necessary to point out here that more educated people are the ones involved in criminal offences. Perhaps, this is as a result of unemployment. We find out that criminal offences committed by educated people are more than the ones committed by the uneducated. Educated people are often caught with hard drugs and even currency trafficking. Many criminal offences like forgery, “419”, juvenile and adult delinquency have become very modern and sophisticated because educated people are involved. These are negative gains from schooling which are unintended.

There is also increasing wave of moral decay among those who have passed through formal education. These people are very disrespectful, promiscuous, dishonest, disobedient, discourteous, rude, and do not have the fear of God in them. Most of these bad behaviours are learnt at school. Parent seems to have lost control over their children. They find it difficult to control their children.

Finally, we touch the issue of marriages. Many marriages in Nigeria today are in serious problem of disintegration. Many are in courts. In most cases, we find marital problems among the educated elite. This implies that those who are not educated, that is, the illiterates have more stable marriages than the educated ones. This fact is very surprising. Actually, what we find in most educated families are lack of trust, nagging, poor

communication, unfaithfulness, cheating, envy and jealousy. In extreme cases, there is divorce or separation.

### Self-Assessment Exercise

1. Do you think that investment in education has some disbenefits?



### 5.4 Summary

We can see from all that has been said that education has both economic, non-economic and disbenefits in the Nigerian society. In other words, investment in education yields some benefits to both individuals and society - these are economic and non-economic in nature. However what motivate people in education is largely the economic benefits.

In this unit, we discussed the economic, non-economic and dis-benefits of education to individuals, communities and society. We saw that the economic benefits which are directed are reflected by the increase in the earnings or income of educated people. The non-economic benefits are the benefits that individuals, families, neighbours, communities and society at large derive from investment in education. We saw that the dis-benefits of education included unemployment, migration of school leavers from rural areas to the urban centres, crime, moral decay and problems among married couples.

### Tutor Marked Assignments

1. What are the economic benefits of investment in education?
2. List the non-economic benefits of investment in education.
3. Do you think that investment in education has some disbenefits?



### 5.5 References/Further Reading/Web Resources

Nwadiani, M (2000) Economic Dimensions of Educational Planning in Nigeria, Benin City: Monose Amalgamates.  
 Sheehan, J (1973) The Economics of Education London: George Allen and Unwin Limited.



## 5.6 Possible Answers to Self-Assessment Exercise(S)

**What are the economic benefits of investment in education?** The economic benefits of investing in education are reflected by the increase in income of educated people. This increase in income is due to improvement in the skills of the educated which of course increase their productivity at work. Weibrod (1986) stated that “education widens employment possibility to technological change and thereby the ability to remain employed”. The direct benefit of education to society is the higher productivity of educated workers and the additional contributions to national income over their entire working lives (Psarcharopoulos in Nwadiani, 2000).

**List the non-economic benefits of investment in education.** Investment in education also has some non-economic benefits. Actually, they are benefits that individuals, families, neighbours, communities and society derive from in education. The non-economic benefits which society derive from education include very high citizen participation in democratic political process, social cohesion, reduction in crime rate as a result of the social norms and values inculcated in the educated, appreciation of citizens of the assets and liabilities of society

**Do you think that investment in education has some disbenefits?**

- There are some disbenefits of education to individuals, families, communities and society individuals; we find out that many school leavers have no saleable skills. Hence, they remain unemployed. Nwadiani (2000) pointed out that in developing countries, more and more school leavers are becoming victims of unemployment as a result of what he called compulsory miseducation
- School leavers migrate from the rural areas to the urban centres in search of employment. Even graduates who studies courses like Agriculture migrate to the urban centres for employment.
- It is necessary to point out here that more educated people are the ones involved in criminal offences. Perhaps, this is as a result of unemployment. We find out that criminal offences committed by educated people are more than the ones committed by the uneducated. Educated people are often caught with hard drugs and even currency trafficking. Many criminal offences like forgery, “419”, juvenile and adult delinquency have become very modern and sophisticated because educated people are involved.
- There is also increasing wave of moral decay among those who have passed through formal education. These people are very disrespectful, promiscuous, dishonest, disobedient, discourteous, rude, and do not have the fear of God in them. Most of these bad behaviours are learnt at school.
- Parent seems to have lost control over their children. They find it difficult to control their children.
- Many marriages in Nigeria today are in serious problem of disintegration. Many are in courts.. Actually, what we find in most educated families are lack of trust, nagging, poor communication, unfaithfulness, cheating, envy and jealousy. In extreme cases, there is divorce or separation.

## MODULE 3

Unit 1	Methodological Problems and Promise of Cost Benefit Analysis
Unit 2	Measuring Efficiency in the Educational System
Unit 3	Efficiency and Wastage in Education
Unit 4	Determinants of Education Demand
Unit 5	Social Demand for Education

### UNIT 1      **METHODOLOGICAL      PROBLEMS      AND PROMISE OF COST BENEFIT ANALYSIS**

#### Unit Structure

- 1.1 Introduction
- 1.2 Learning outcome
- 1.3 Main Content
  - 1.3.1 The Methodological Problems of Cost Benefit Analysis
  - 1.3.2 The Promise of Cost-Benefit Analysis
- 1.4 Summary
- 1.5 References/Further Reading/Web Resources
- 1.6 Possible Answers to Self-Assessment Exercise(s)



#### **1.1 Introduction**

This unit presents the methodological problems and promise of cost benefit analysis. The point is made at the outset that the use of cost benefit analysis in making decisions concerning education has problems. The big promise which cost benefit analysis has been also discussed.



#### **1.2 Learning Outcome**

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

- State the methodological problems of cost benefit analysis
- Discuss the promises of cost benefit analysis



## 1.3 Main Content

### 1.3.1 The Methodological Problems of Cost Benefit Analysis

In unit three, you learnt that applying cost to education entails an evaluation of the cost of education to the benefit derivable from expenditure on education. Here, you will study the methodological problems in benefit analysis. The first point to note here is that the use of cost benefit analysis in making decisions concerning education is faced with some problems. The first problem is that the reliance on cross section data poses a problem because the mean earning of the age group may not be the representation. It is difficult to get time series data especially in developing countries like Nigeria, Ghana and Tanzania. The reason is because the person conducting the research would have died and so the exercise becomes useless. Besides these, decisions are always made for the future and educational planners little time to wait. For these reasons, the utility of time - series data become questionable.

Secondly, there are some contextual problems which arise from the methods of measurement of costs and benefit. Writing on this, Nwadiani (2000),

Uwadurike (1991) and Sheehan (1973) stated that the use of cost benefit ratio method assumes that the value of money does not change. But we know that this is -not true. For instance, office type-writer which by the year<sup>2002</sup> costing N5000. The cost of biro pen was N10. It is now sold for between N15 and N20. This change in prices is because the value of the Nigeria money (the Naira) changes or depreciates so fast. It is that this method misguides the planner. Therefore any decision based on the cost benefit ratio would certainly generate problems in the future.

Thirdly, it is difficult to quantify life-time earnings of workers. It is also deceptive. Nwadiani (2000) attributes this to the fact that income is a function of multidimensional factor such as sex, social connections, occupation, native intelligence, place of work and amount of education. For this reason, it becomes difficult to actually measure the real benefit derived because of the amount of education received.

Many people believe that once one graduate from school, their employment is automatic, but this is not so. Many graduates do not get employment immediately they graduate from school. Some visit the city centres with applications for job. Yet, they do not get employed. So the numbers of unemployed school leavers continue to rise. Similarly, many people believe that all those who go to school graduate at the normal time. But we know that this is not so because some graduate with flying colours,

other fails while there are some other who drop out without graduation. Fifthly, educational administrators and planners find it difficult to convert the psychic benefits of education into monetary terms. This is why it is difficult to sum up the total costs and benefits of any educational investment to either individuals or society. Nwadiani (2000) quoting Coombs (1985) was of the view that “the exercise is essentially a number game - one that ignored important qualitative deficiencies and maladjustments in existing educational systems and specific programmes”.

Sixthly, it is well known that cost benefit analysis studies past and present relationship between education costs and benefits. However, it is not certain whether the same benefits would be constant overtime. Nwadiani (2000) and Sheehan (1973) pointed out that returns to education are affected to a large extent by the scarcity or glut of the kind of educated people in question. These authors maintained that the benefit increases when they are in short supply and vice versa. One must state at this juncture the fact that the economies of developing nations like Nigeria, Ghana and Tanzania are difficult to predict, makes the application of cost benefit analysis in education decision making an uninteresting activity or venture

### **Self-Assessment Exercise**

- |  |
|--|
| 1. Identify the six methodological problems of cost benefit analysis |
|--|

### **1.3.2 The Promise of Cost-Benefit Analysis**

Cost-benefit analysis promises a lot in the area of educational planning. The most important contribution of cost benefit analysis is its role in rational allocation and utilization of limited resources to and within education. Educational resources like teaching materials and equipment are never enough. For this reason, educational administrators and planners must evolve strategies for optimum utilisation of educational resources to avoid waste in a period of scare resources.

The education industry is not like other sectors where people will always want to know the benefits to accrue from an investment. The education industry is very different because it takes a long time to train an educated person. According to Harbison (173) in Nwadiani (2000)  
*... Schools and college buildings can be created in a matter of months, but it required decades to develop high level teachers and professors.*

This long time it takes to train an educated man arises more so when educational development is directed by socio-economic and political dictates. It is here that cost control planning strategy becomes very difficult in educational management.

In the less developed countries of Africa, Asia and Latin America, education takes a great share of resource allocation. Nwadiani (2000:108) stated that if education industry in these countries is able to develop one or two professional innovators, then this will offset the cost borne by society in providing such education. According to him, it will therefore be rational to assess educational benefits not only on the short term returns to either individual or society but on the long run effects.

The use of cost benefit analysis is not popular because most educational management decisions are made by non-educators. The educational planner with all the “technical knowledge” has very limited power to really influence the way education should go.

difficult to get time series data in developing countries because the person conducting the research may die and so there were contextual problems arising from the methods of measurement of costs and benefits.

### **SELF ASSESSMENT EXERCISE**

- |  |
|--|
| 1. What promises does cost benefit analysis has for educators? |
|--|



#### **1.4 Summary**

In this unit, our focus was on the methodological problems of cost benefit analysis as well as its promises. Six methodological problems were discussed. It was found out that cost benefit analysis promises a lot in the area of educational planning.

#### **Tutor Marked Assignments**

1. Identify the six methodological problems of cost benefit analysis
2. What promises does cost benefit analysis has for educators?



#### **1.5 References/Further Reading/Web Resources**

Coombs, P. H. (1985) *The World Crisis in Education: The view from the Eighties*, New York: Oxford University Press.

Harbison, F. E (1973) *Human Resources as the Wealth of Nations*: New York: Oxford University Press.

Nwadiani, M (2000) *Economics of Education* London: George Allen and Unwin

Uwazurike, C. N (1991) *Educational Planning and National Development*, Awka: Mekslink Education Book Series



## 1.6 Possible Answers to Self-Assessment Exercise(S)

2. **Identify the six methodological problems of cost benefit analysis**
  - The first problem is that the reliance on cross section data poses a problem because the mean earning of the age group may not be the representation. It is difficult to get time series data especially in developing countries like Nigeria, Ghana and Tanzania. The reason is because the person conducting the research would have died and so the exercise becomes useless.
  - , there are some contextual problems which arise from the methods of measurement of costs and benefit.
  - it is difficult to quantify life-time earnings of workers.
  - Many people believe that once one graduate from school, their employment is automatic, but this is not so.\
  - Educational administrators and planners find it difficult to convert the psychic benefits of education into monetary terms.
  - it is well known that cost benefit analysis studies past and present relationship between education costs and benefits. However, it is not certain whether the same benefits would be constant overtime
3. **What promises does cost benefit analysis has for educators?**
  - The most important contribution of cost benefit analysis is its role in rational allocation and utilization of limited resources to and within education. Educational resources like teaching materials and equipment are never enough. For this reason, educational administrators and planners must evolve strategies for optimum utilisation of educational resources to avoid waste in a period of scare resources.
  - The education industry is not like other sectors where people will always want to know the benefits to accrue from an investment. The education industry is very different because it takes a long time to train an educated person.
  - That if education industry in these countries is able to develop one or two professional innovators, then this will offset the cost borne by society in providing such education. According to him, it will therefore be rational to asses educational benefits not only on the short term returns to either individual or society but on the long run effects.

## UNIT 2 MEASURING EFFICIENCY IN THE EDUCATIONAL SYSTEM

### Unit Structure

- 2.1 Introduction
- 2.2 Learning outcome
- 2.3 Main Content
  - 2.3.1 Meaning of Efficiency
  - 2.3.2 The Two Concepts of Efficiency
  - 2.3.3 Meaning of Effectiveness
- 2.4 Summary
- 2.5 References/Further Reading/Web Resources
- 2.6 Possible Answers to Self-Assessment Exercise(s)



### 2.1 Introduction

You must have come across the concept ‘efficiency’ in other courses and discipline. But you may not have paused to ask yourself what is efficiency? What does efficiency mean? This unit defines the word efficiency with some concrete examples and goes on to discuss types of efficiency.



### 2.2 Learning Outcome

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

- Define the word efficiency
- Identify the two types of efficiency
- State the difference between efficiency and effectiveness.



### 2.3 Main Content

#### 2.3.1 Meaning of Efficiency

The word efficiency appears to have originated from Economics. The concept arose from the fact that every organized human activity start by defining the objectives to be achieved or output expected. In order to achieve the objectives, certain inputs must be available. Efficiency, according Arinze in Bosah and Eneasator (1996: 1974) is defined in terms of the optimal relationship between inputs and outputs in an enterprise. We usually say that an activity is performed efficiently if a given quantity of outputs is obtained with a minimum number of inputs or, alternatively

if a given quantity of inputs yields maximum outputs. By ways of analysis, the ratio AO/RC explains efficiency as objective attained (AO) related to resources consumed (RC). An example will suffice here. Let us consider three streams of an SS2 class with 35 students each. At the end of the school year, 25 students performed well in SS2 X, 28 in SS 27 and 30 in SS22. If the same amount of resources were consumed in each of the three streams, then SS22 is efficient than SS2X and SS27.

Arinze in Bosah and Eneasator (1996) stated that depending on the type of organisation and its objectives, that efficiency is measured by the number of deaths per doctor, the number of supervisees per supervisor. Kilometres covered by a car per litre of petrol. However in education, some efficiency measures include:

- i. Cost per full time equivalent student
- ii. Student - faculty ratio
- iii. Student - teacher ratio
- iv. Percentage of classroom time utilized.

Education and economics are all concerned with production. The concept of efficiency is used to analyse production which one kind of goods or services is transformed into another. Education, as we mentioned, is also concerned with production. A number of inputs (teachers, students, content, buildings, books instructional materials, etc) are combined in different ways in order to achieve educational ends. In other words, various inputs are transformed in order to achieve outputs. It is therefore obvious from all this that when people talk about improvement in the efficiency of the educational system, they are generally referring to change in the way different inputs are combined to yield outputs.

Generally, efficiency in education has two dimensions. These are according to Arinze (1996)

1. the flow of students through the system with a minimum of wastage and
2. the quality of learning achieved in the system at given levels or periods

It must be pointed out that wastage in the flow of students manifest quantitatively in the form of drop out and repetition. The quality of learning is determined by the inputs and outputs of the educational system. The second aspect of efficiency is more controversial and uncertain. This is the quality of learning. It may have to deal with the extent to which the learning outcomes are in agreement with what the society or nation desires.

### **Self-Assessment Exercise**

- i. How would you explain to a lay man on the street the terms efficiency?

### 2.3.2 The Two Concepts of Efficiency

From all that has been said in the previous paragraph, we can see that there are two concepts of efficiency when we consider the overall context.

These include:

- i. Internal efficiency
- ii. External efficiency

First, an educational system is said to be internally efficient when it turns out, graduates without wasting any student-year, or without drop-outs and repeaters. In other words, an internally efficient educational system is one which turns out, graduates without wasting any student year or without dropout and repeaters. However, one must point out that the same system may be externally quite inefficient if the graduates it turns out are not what the society, economy, or higher levels of education wants. The graduates so turned out may be wrongly qualified, not meeting the university entrance requirements. They may be unemployable and redundant.

Arinze in Bosah and Eneasator (1976) stated that the external efficiency of an educational system involves relationships between general and vocational education and between schools and world of work. This means that the external efficiency of an educational system has to do with the relationship between general and vocational education and also between schools and the world of work. An educational system is said to be externally efficient if the graduates turned out fits into the world of work. In order to promote external efficiency it may be necessary to estimate the number and skills that will be required in the country at a future date. In other words, if we can estimate the number and kinds of skills that will be required in the country at a future date, we are promoting external efficiency. However this exercise (the estimation of the number and types of skills that will be required in the country at a future date) is extremely difficult in this fast changing world. Whatever is the case, serious efforts have to be made by both curriculum specialists, educational administrators and planners to reduce the level of external inefficiency of the educational system.

#### **Self-Assessment Exercise**

Differentiate between internal and external efficiency of an educational system.

### 2.3.3 Meaning of effectiveness

Having discussed the meaning of efficiency and the types of efficiency, we need to take up another related concept which is “effectiveness”. Effectiveness is a concept that cuts across many disciplines. For instance, we talk about the effectiveness of an educational system, the effectiveness of an accounting system, the effectiveness of political programme, the effectiveness of a Bank or a financial institution and the effectiveness of a community organisation.

Effectiveness is normally defined in terms of the achievement of objectives. For example, a Senior secondary School is said to have achieved its objectives if its students perform well in the Senior Secondary School Certificate Examination. We usually say that an activity is performed effectively if the objective set out is achieved. On the other hand, we usually say that an activity is performed efficiently if a given quantity of outputs is obtained with a minimum input. So, we define efficiency in terms of the optimal relationship between inputs and outputs in an organisation or enterprise.

### Self-Assessment Exercise

Explain in brief when we talk about effectiveness



### 2.4 Summary

You must have learnt from this unit that efficiency is defined in terms of the optimal relationship between inputs and outputs in an organization or enterprise. We conclude that an activity is performed efficiently if a given quantity of outputs is obtained with a minimum number of inputs. When people talk about improvement in the efficiency of the educational system, they are generally referring to changes in the way different inputs are combined to yield outputs. Effectiveness on the other hand is concerned with the achievement of objectives.

In this unit, the meaning of efficiency and the two concepts of efficiency, namely, internal and external efficiency were explained and discussed. Effectiveness was seen as being concerned with the achievement of objectives while efficiency was defined in terms of optimal relationship between in-puts and outputs in an organization or enterprise.

### Tutor Marked Assignments

- i. How would you explain to a lay man on the street the terms efficiency?
- ii. Differentiate between internal and external efficiency of an educational system.
- iii. Explain in brief when we talk about effectiveness.



### 2.5 References/Further Reading/Web Resources

Arinze, F. O. M. (1996) Some Issues in Educational Planning in H. O. N Bosah and G. O. Eneasator (ed) Dimensions of Educational Planning and Economics of Education Lagos: Ed Solid Foundation Publisher.

Sheehan, J. (1973) Economics of Education London: George Allen and Unwin.



## 2.6 Possible Answers to Self-Assessment Exercise(S)

### 1. -How would you explain to a lay man on the street the terms efficiency?

Efficiency, according to Arinze in Bosah and Eneasator (1996: 1974) is defined in terms of the optimal relationship between inputs and outputs in an enterprise. We usually say that an activity is performed efficiently if a given quantity of outputs is obtained with a minimum number of inputs or, alternatively if a given quantity of inputs yields maximum outputs. The concept of efficiency is used to analyse production which one kind of goods or services is transformed into another. Education, as we mentioned, is also concerned with production. A number of inputs (teachers, students, content, buildings, books instructional materials, etc) are combined in different ways in order to achieve educational ends. In other words, various inputs are transformed in order to achieve outputs. It is therefore obvious from all this that when people talk about improvement in the efficiency of the educational system, they are generally referring to change in the way different inputs are combined to yield outputs.

### 2. Differentiate between internal and external efficiency of an educational system.

Internally efficient educational system is one which turns out, graduates without wasting any student year or without dropout and repeaters. However, one must point out that the same system may be externally quite inefficient if the graduates it turns out are not what the society, economy, or higher levels of education wants. The external efficiency of an educational system involves relationships between general and vocational education and between schools and world of work. This means that the external efficiency of an educational system has to do with the relationship between general and vocational education and also between schools and the world of work. An educational system is said to be externally efficient if the graduates turned out fits into the world of work.

In order to promote external efficiency it may be necessary to estimate the number and skills that will be required in the country at a future date. In other words, if we can estimate the number and kinds of skills that will be required in the country at a future date, we are promoting external efficiency

### 3. Explain in brief when we talk about effectiveness

Effectiveness is a concept that cuts across many disciplines. For instance, we talk about the effectiveness of an educational system, the effectiveness of an accounting system, the effectiveness of political programme, the effectiveness of a Bank or a financial institution and the effectiveness of a community organisation.

Effectiveness is normally defined in terms of the achievement of objectives. For example, a Senior secondary School is said to have achieved its objectives if its students perform well in the Senior Secondary School Certificate Examination. We usually say that an activity is performed effectively if the objective set out is achieved.

## UNIT 3 EFFICIENCY AND WASTAGE IN EDUCATION

### Unit Structure

- 3.1 Introduction
- 3.2 Learning outcome
- 3.3 Main Content
  - 3.3.1 The Concept of Wastage
  - 3.3.2 Causes of Educational Wastage
  - 3.3.3 How to Reduce Educational Wastage
- 3.5 Summary
- 3.5 References/Further Reading/Web Resources
- 3.6 Possible Answers to Self-Assessment Exercise(s)



### 3.1 Introduction

The objective of this unit is to present the concept of wastage, causes of wastage and solutions to the problems of educational wastage.



### 3.2 Learning Outcome

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

- Define the concept wastage in education
- State the causes of wastage
- Discuss the ways of reducing of educational wastage.



### 3.3 Main Content

#### 3.3.1 The Concept of Wastage

In the previous unit, you were exposed to the concept of efficiency. We also identified the two types of efficiency, namely, internal and external efficiency. We saw that efficiency is defined in terms of the optimal relationship between inputs and outputs in an enterprise. We made the point and an activity is performed efficiently if a given quantity of outputs is obtained with a minimum number of inputs. Efficiency, as was stated, is measured by the number of deaths per doctor, the number of supervisees per supervisor, the number of kilometres covered by a car per litre of petrol.

In education, some measures of efficiency include cost per full time equivalent student, student faculty ratio, student-teacher ratio and

percentage of classroom time utilized. We also saw that efficiency in education has two dimensions which include the flow of students through the system with a minimum of wastage and the quality of learning achieved in the system with a minimum of wastage and the quality of learning achieved in the system at given levels or periods.

Wastage in education cannot be separated from efficiency. Educational wastage means the inefficient use of educational resources. Obviously, educational wastage includes drop-outs, repeater, non-employment of school leavers, brain drain and even inadequate utilization of educational resources including teacher and buildings. Inadequate utilization of educational resources implies that in a school system, for example, the teachers posted to the school are not properly utilized. In this situation, it is possible that some teachers do not have classes to teach. It is also possible that some buildings are laying waste.

### **Self-Assessment Exercise**

1. Define the concept of wastage in education.

### **3.3.2 Causes of Educational Wastage**

There are many different kinds of wastage in education. We shall borrow from the classification of Arinze in Bosah and Eneasator (1996:176) who grouped the causes of wastage in education into three, name;

1. the nature of educational inputs
2. the nature of processing
3. the nature of outputs

1. The causes of educational wastage are largely due to the nature of educational inputs. This includes the nature and ability of students, the nature and types of educational resources, the goals of the educational system, and the nature of the content (curriculum). One aspect of manifestation is drop-outs within our educational system. We find cases of drop-outs in primary schools, secondary schools and tertiary institutions. The main reasons for drop-outs are ill-health and death, truancy financial difficulty or poverty, learning difficulties among students, and at times, parents wish, some pupils or students fell sick during their academic career and the ill-health is so serious that they cannot continue with their education. Some even die in the process. Some students also enrol into a programme but habitually absent themselves from lessons or lectures. In some cases, they abandon the programme. Some students face financial problems due to the socio-economic background of their parents or guardians. There are also students who have learning difficulties. They find it difficult to grasp what is taught.

Another cause of educational wastage is the nature and types of educational resources, including teachers and facilities available for education. Secondary schools, particularly, those in the rural areas of the country lack sufficient apparatus for science practicals. Some schools in the rural areas of the country lack Mathematics and Science teachers.

The nature of the goals of the educational system is also another cause of wastage in education. We find out that where the goals of the educational system are practical-oriented, then the products would be gainfully employed on graduation. But where the goals emphasize merely literacy and general education, then the products would be unemployed.

The nature of the content of the curriculum could also be a cause of wastage. In a situation where the content of the curriculum consists of English Literature, History, Christian or Islamic Religious Knowledge, Music Geography, Igbo Language and French, then the products of the school may graduate without any hope.

The cause of educational wastage could be process-based; say administration or management, the examination or certificate system. The nature of administration or management of the school system could be faulty in the sense of the administrator being autocratic or high-handed. It could also be a laissez faire administrator - who allows everything to go its own way without making effort to put things right. It could be that the nature of the examination system where emphasis is laid on one-shot examination instead of continuous assessment, is the cause of the wastage. The last but not the least cause of wastage in the Nigerian Educational System is the nature of the outputs. It could be that the graduates from the educational system do not conform to the initial objectives or even that the graduates find it difficult to fit into the society. Somebody who studied literacy subjects, for example, may not fit in very well in a computer-literate society. The graduates may not be fully employed, or it could be that they have not acquired the changes and thoughts desired by the larger society.

### **SELF ASSESSMENT EXERCISE**

List three major causes of wastage in education.
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### **3.3.2 HOW TO REDUCE EDUCATIONAL WASTAGE**

What you have been studying in the previous paragraphs are the causes of wastage - i.e. the causes of educational wastage. In this section, you will learn about how to reduce educational wastage. For those who drop-out from school for reasons of ill-health, school heads and medical units of schools should monitor student's health so as to detect those who are sick and need medical attention. The Federal and State Ministries of

Education, Voluntary organizations, Financial institutions like banks and wealthy individuals should award bursaries and scholarships to students to enable those who may drop-out to complete their programmes.

The National Educational Technology Centre in Kaduna should assist schools by donating instructional materials to them. The quality of the teacher should be improved for better performance on the job. Educational institutions should organize conferences, seminars and workshops for serving teachers on the improvement of teaching methods and techniques.

There is now more emphasis on science and technology, computer science and allied courses. So, the contents of our curriculum should be in line with science, technical and computer areas.

The management or administration in our educational institutions should be re-examined with a view to improving its quality. First of all, the various Federal and State Ministries of Education and their agencies should as a matter of necessity appoint qualified and competent educational administrators to head various institutions. Politics should not influence the appointment of educational managers or administrators of our institutions. Administrator of our educational institutions, be the Primary school Headmasters, Secondary school Principals, Provosts of our Colleges of Education, Rectors of Polytechnics and Vice-chancellors of our Universities should be democratic in the management of affairs of their institutions.

Educational institutions should continue to lay emphasis on continuous assessment. Certificate acquisition, should as much as possible be de-emphasized.

The graduates of our various schools or educational institutions should acquire changes in behaviours and thoughts as desired by the society. Our graduates should fit well into the society.

### **SELF ASSESSMENT EXERCISE**

Discuss four ways of reducing wastage in education



### **3.4 Summary**

Our conclusion on this unit is that wastage in education cannot be separated from efficiency. It implies the inefficient use of educational resources. The causes of educational wastage are largely due to the nature of educational inputs, the nature of processing and the nature of outputs. Educational wastage can be reduced take care of the sick in schools,

awarding bursaries and scholarship to students providing instructional materials, laying emphasis on science technology, computer and allied courses as well as improving the management of our educational institutions.

In this unit, the concept of educational wastage was explained. The causes of educational wastage were also comprehensively discussed. The causes of educational wastage or wastage in education was attributed to the nature of educational outputs, the nature of processing that is, the nature of the activities involved in the transformation and the nature of outputs. Finally, some suggestions were put forward on how to reduce educational wastage.

### **Tutor Marked Assignments**

1. Define the concept of wastage in education.
2. List three major causes of wastage in education.
3. Discuss four ways of reducing wastage in education.



### **3.5 References/Further Reading/Web Resources**

Arinze, F. O. M. (1996) Some Issues in Educational Planning in H. O. N Bosah and G. O. Eneasator (ed) Dimensions of Educational Planning and Economics of Education Lagos: Ed Solid Foundation Publisher.

Sheehan, J. (1973) Economics of Education London: George Allen and Unwin.



### 3.6 Possible Answers to Self-Assessment Exercise(S)

#### **Define the concept of wastage in education. .**

Educational wastage means the inefficient use of educational resources. Obviously, educational wastage includes drop-outs, repeater, non-employment of school leavers, brain drain and even inadequate utilization of educational resources including teacher and buildings. Inadequate utilization of educational resources implies that in a school system, for example, the teachers posted to the school are not properly utilized.

#### **List three major causes of wastage in education.**

- The nature of educational inputs which includes the nature and ability of students, the nature and types of educational resources, the goals of the educational system, and the nature of the content (curriculum).
- One aspect of manifestation is drop-outs within our educational system. We find cases of drop-outs in primary schools, secondary schools and tertiary institutions.
- The nature and types of educational resources, including teachers and facilities available for education.
- The nature of the goals of the educational system is also another cause of wastage in education.
- The nature of the content of the curriculum could also be a cause of wastage.
- The cause of educational wastage could be process-based; say administration or management, the examination or certificate system.
- The last but not the least cause of wastage in the Nigerian Educational System is the nature of the outputs.

#### **Discuss four ways of reducing wastage in education**

- For those who drop-out from school for reasons of ill-health, school heads and medical units of schools should monitor student's health so as to detect those who are sick and need medical attention.
- The Federal and State Ministries of Education, Voluntary organizations, Financial institutions like banks and wealthy individuals should award bursaries and scholarships to students to enable those who may drop-out to complete their programmes.
- The National Educational Technology Centre in Kaduna should assist schools by donating instructional materials to them.
- The quality of the teacher should be improved for better performance on the job.

- Educational institutions should organize conferences, seminars and workshops for serving teachers on the improvement of teaching methods and techniques.
- The contents of our curriculum should be in line with science, technical and computer areas.
- The management or administration in our educational institutions should be re-examined with a view to improving its quality.
- the various Federal and State Ministries of Education and their agencies should as a matter of necessity appoint qualified and competent educational administrators to head various institutions.
- Politics should not influence the appointment of educational managers or administrators of our institutions. Administrator of our educational institutions,
- Educational institutions should continue to lay emphasis on continuous assessment. Certificate acquisition, should as much as possible be de-emphasized.
- The graduates of our various schools or educational institutions should acquire changes in behaviours and thoughts as desired by the society. Our graduates should fit well into the society.

## UNIT 4 DETERMINANTS OF EDUCATION DEMAND

### Unit Structure

- 4.1 Introduction
- 4.2 Learning outcome
- 4.3 Main Content
  - 4.3.1 Meaning of Demand
  - 4.3.2 Determinants of Education
  - 4.3.3 Other Determinants of Education Demand
- 4.4 Summary
- 4.5 References/Further Reading/Web Resources
- 4.6 Possible Answers to Self-Assessment Exercise(s)



### 4.1 Introduction

This unit discusses the determinants of education demand. Actually, the demand for education the world over is a function of economic and non-economic factors. Generally, the major determinants of education demand are the costs, family disposal income, expected benefits, availability of non- educational alternatives, unemployment rates and socio-cultural elements.



### 4.2 Learning Outcome

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

- Define the term demand in economic terms
- List the determinants of education demand
- Discuss each of the determinants of education demand



### 4.3 Main Content

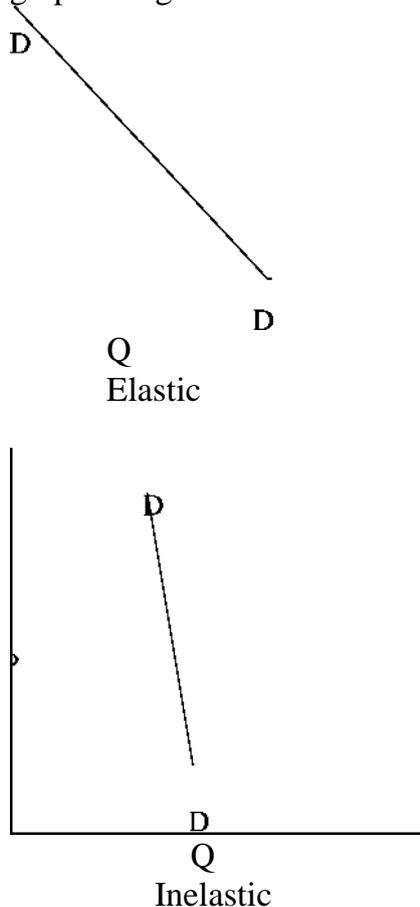
#### 4.3.1 meaning Of Demand

Ordinarily, demand means a request made as of right or urgently. But we have to look at the meaning of “Demand” in economic terms. In economic terms, demand means the desire of would-be purchasers or users of a commodity. Nwadiani (2000) defines demand more critically as the amount of a commodity, like education, that would be bought at a price over a period of time.

Many people would expect more of a commodity, like exercise books, will be bought at a lower price. This means that if the exercise books were less or smaller in number, it would cost more, Nwadiani (2000) reported that the application of this law is dependent on whether the commodity being demanded has a substitute. In a situation where there is no substitute, exceptional demand becomes the rule.

It must be pointed out that where there is a further rise in the price of a commodity more of such a commodity would be bought, even if the price has risen. Education is a product of very many inputs (teacher, teaching aids, buildings, administration, funds, etc). It shares the same qualities of ostentatious goods - goods with very high prices. The price which people pay for education rises every day. A lot of wealthy individuals in the society demand for schools or educational institutions that are very costly. Thus, we normally talk of elasticity of demand.

Elasticity of demand is defined by Nwadiani (2000:18), as “the economic behaviour of consumers in the market place in terms of their responsiveness to the quantity of a commonly demanded when there is a small change in price. Two of such behaviours are represented in the graph in figure two below



**Figure 2: Elasticity of Demand Curves (Source: Nwadiani:2000)**

### Self-Assessment Exercise

What do you understand by the term demand?

#### 4.3.2 Determinants of Education Demand

Authorities in Economics of Education including Nwadiani (2000), Sheehan (1973) have stated that the demand for education in the world over is a function of economic factors, including cost, family disposable income, expected benefits, availability of non-educational alternatives, unemployment rates and socio-cultural set up.

Cost is one of the major determinants of the demand for education. It is the responsibility of the Nigerian government to provide education for her citizens. But we know that this is not usually the case. In fact much of the cost of education is borne by private individuals and at times, local communities. Usually parents bear the direct costs of education by paying tuition fees, buying stationeries, school uniform, paying the cost of transportation to and from the school and providing pocket money.

Obviously many pupils or students would not be in school if the cost of education were very high. If the cost of secondary education for instance were to be N5000 per term, most parents may not afford to pay such amount for their children. Today many people cannot afford to train their children overseas because of cost implications.

Family disposable income is another major determinant of the demand for education. Most families are very poor in Nigeria. Only a few are rich. Those families who are very poor have little or no income to dispose towards the education of their children. Nwadiani (2000) had argued that poor families will certainly find it difficult to pay fees and that even when free education is offered, it imposes a substantial financial burden through earnings forgone and out of pocket expenses for clothes, travel, books or materials. Parents whose main occupation is farming find it difficult to release their children for school. This is especially the case in the rural areas of the country.

Nwadiani (2000) had argued and rightly too that effective demand for education is usually very low among Africans and lower for uneducated, poor and rural families. Many Africans (Nigeria being one of them) have large families. In most cases, the families are beyond the level they can cope with. In these families, the demand for education is very selective what happens is that only the very intelligent ones are sponsored. The situation is worse in polygamous families. In such families, the mothers bear the burden of the education of their children. Of course, in this type of situation, girls are not considered for education is also one of the determinants of the demand for education. In Nigeria, education is seen

as a profitable investment which will yield much dividends later. This is one of the reasons why parent invest in education. They usually sacrifice their hard earned income and at times even borrow to make sure they educate their children. They make these scarifies because they are sure that when their children graduate they will earn a fat income. Of course, people invest in education to earn a higher income over time. Also, people want to increase or improve their social status and also to contribute to the development of education demand.

Another determinant of education demand is the availability of non-educational alternatives. Writing on this Akangbou (1998) and Nwadiani (2000) pointed out the decision to invest or not to invest in education would depend on the availability or not of non-educational alternatives. Education, as we know, is very essential for individual and societal progress. Many people have different attitudes towards education. Some see it merely as preparation for adulthood. Others see it as a means of livelihood. So the way education is demanded depends on attitude towards education and what those demanding it feel education can do for them. There are parents who will do anything to make sure their children are in school. There are also others who will not want to sacrifice anything for the education of their children.

In some part of Northern Nigeria, parents prefer their children to rear cattle since they are nomad than enrolling in primary and secondary schools.

### **4.3.3 Other Determinants of Education Demand.**

You have learnt from the preceding paragraphs that cost of education, family disposable income, expected benefits and availability of non-educational alternatives constitute some of the determinants of education demand. In the paragraphs that follow, you will read how unemployment rate and sociocultural elements are determinants of education demand. Let us take up the issue of unemployment. The first point to note is that the demand for education is high in every society if the job prospects are bright. On the other hand, the demand is low if the prospects are dim. There is high rate of unemployment among school leavers in Nigeria. This has affected the demand for education. Actually, when people discover that there are no ready jobs, they will not be motivated to pursue education.

In Nigeria, unemployment is now very chronic. Graduates roam the cities looking for job to no avail. Coombs in Nwadiani (2000) stated that the total number of unemployed in the OECD countries stood at 30 million three times more than in 1970.

Socio-cultural elements is also another determinant of the demand for education socio-cultural elements here refer to social origin and pattern which affect values and attitudes towards education demand. Writing on this, Nwadiani (2000) noted that children.

*Children of educated parents who work in the formal sector of the economy are more likely to be educogenic- that is will have a much higher affinity and aspiration for education for their children than those parents of less social class, their higher income notwithstanding.*

Similarly children whose parents are poor and uneducated will be ignorant and so will under demand education. In Nigeria, ethnic origin and religious background also affected the demand for education. The Muslims in the North, for instance were reluctant to accept formal western education from the very beginning. This is the major reason for the educational imbalance between the North and the south in Nigeria.

Cultural elements also affect the demand for education in developing countries like Nigeria. In some societies, there is male dominance. That is, male are favoured when it comes to education. Males are put in schools while their female counterparts are freely given out in marriage. In such societies, people enormously believe that the education of female girls would be harmful. In order words, they believe that formal education will miseducate them outside their traditional roles or functions. In fact in most countries of sub Sahara Africa, education is in favour of males than females.

### **SELF ASSESSMENT EXERCISE**

Identify the determinants of education demand.



#### **4.4 Summary**

From our discussions so far, it could be seen that the demand for education is a function of economic factors namely, the cost of education, family disposable income, expected benefits from education, availability of non-educational alternatives, unemployment rates and socio-cultural set-up. The emphasis is on how each of these factors determines education demand.

In this unit, we have tried to demonstrate how the cost of education, family disposable income, expected benefits from education, availability rates and socio-cultural set up determines education demand. We discovered that their degrees of determinations vary in space and time.

**Tutor Marked Assignments**

- i. What do you understand by the term demand?
- ii. Identify the determinants of education demand.
- iii. How is unemployment and expected benefits from education a determinant of education demand in Nigeria?

**4.5 References/Further Reading/Web Resources**

Akangbou, S. D (1998) *The Economics of Education: An Introduction*, Ibadan: Shaneson C. I. Limited.

Coombs, P. H (1985) *The World Crisis in Education: The View from the Eighties*, New York: Oxford University

Nwadiani, M. (2000) *Economic Dimensions of Educational Planning*, Benin City: Monose Amalgamates.

Sheehan, J (1973) *Economics of Education* London: George Allen and Unwin.



#### **4.6 Possible Answers to Self-Assessment Exercise(S)**

**1. What do you understand by the term demand?**

In economic terms, demand means the desire of would-be purchasers or users of a commodity. Nwadiani (2000) defines demand more critically as the amount of a commodity, like education, that would be bought at a price over a period of time. Many people would expect more of a commodity, like exercise books, will be bought at a lower price. This means that if the exercise books were less or smaller in number, it would cost more, Nwadiani (2000) reported that the application of this law is dependent on whether the commodity being demanded has a substitute. In a situation where there is no substitute, exceptional demand becomes the rule.

**2. Identify the determinants of education demand.**

The demand for education in the world over is a function of economic factors, including cost, family disposable income, expected benefits, availability of non-educational alternatives, unemployment rates and socio-cultural set up.

## UNIT 5 SOCIAL DEMAND FOR EDUCATION

### Unit Structure

- 5.1 Introduction
- 5.2 Learning outcome
- 5.3 Main Content
  - 5.3.1 Meaning of the term “Social Demand”
  - 5.3.2 Closing Social Demand for and Supply of Education
- 5.4 Summary
- 5.5 References/Further Reading/Web Resources
- 5.6 Possible Answers to Self-Assessment Exercise(s)



### 5.1 Introduction

This unit discuss social demand for education in Nigeria. Social demand for education is seen as the total number of individual demand for education places over time. Four policy options which are open to the suppliers of education were discussed.



### 5.2 Learning Outcome

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

- Explain what is meant by social demand for education
- Discuss the policies for redressing education demand supply gap.



### 5.3 Main Content

#### 5.3,1 Meaning of The Term Social Demand For Education

You must have seen from the previous unit that demand means the amount of a commodity that is bought at a price over a period of time. You must have also noted that a number of factors economic and non-economic affect the demand for education. In this unit, we will explore the meaning of social demand for education.

Social demand for education is the total number of individual demand for education places over time. Nwadiani (2000) pointed out that social demand for education is dictated by the social, political and economic situations of the time. On other words, the total number of individual demand for education places over time is dictated by the social, political and economic situations of the people at a particular time. (Coombs,

1985) stated that “the social demand for education at times exceeds learning needs as when young people vie for entry into the University not primarily to satisfy their yearning to learn but to obtain a diploma that has special prestige and market value”. It is very unfortunate for young people to aspire for University education just because they want to get diplomas or degrees for jobs, that is, for the market value.

Actually, there has been scarcity of resources to cope with the demand for education in Nigeria. It must be noted that education competes with other sectors of the economy for financial, human and material resources. So, there is a large number of people who desire education but cannot be enrolled because of scarcity of resources. Nwadiani (2000) reported that in 1980, many people applied for University places but only very few were admitted.

This implies that many people were not admitted. Nwadiani (2000) put up a table to show the social and unsatisfied demand for University education in Nigeria between the years 1980 to 1990.

**Table 2: Social and Unsatisfied Demand for University Education in Nigeria between 1980 and 1990.**

YEAR	DEMAND FOR PLACES	NOS. ADMITTED	UNSATISFIED DEMAND
1980/8	145567	24191	121376 (83.4%)
1981/8	180685	25499	155186 (85.9%)
1982/8	205112	22015	182097 (89.3%)
1983/8	191583	26691	164892 (86.1%)
1984/8	201140	27482	173658 (85.3%)
1985/8	212114	35165	176951 (83.4%)
1986/8	193729	39915	176951 (83.4%)
1987/8	210525	36456	174069 (82.7%)
1988/8	191482	41700	149782 (78.2%)
1989/90	255639	37426	218213 (85.4%)

*Source: Nwadiani (2000)*

We noted earlier that a large number of people demand for University education. Three factors as noted by Nwadiani (2000:26) are responsible. These include

- 1) The mounting educational aspirations of parents and their children
- 2) The faith placed on education as a catalyst in over all national development cum the democratic values in the political power drama,
- 3) The boom in the number of school age segment of the population.

The above factors make people continue to demand for education even after having completed some levels of education. For example, an NCE graduate demands for a degree in education. A first degree holder demands for second degree, i.e. Master's degree. In order to satisfy the number of people demanding for education over time, governments spend more money on education than in the other sectors of the economy. So, other sectors of the economy suffer.

### **SELF ASSESSMENT EXERCISE**

- i. Explain the term "social demand for education".
- ii. Give three reasons why people demand for university education

### **5.3.2 Closing Social Demand for and Supply of Education**

In the past few paragraphs, we mentioned that social demand for education is the total number of individual demands for education places over time. By now you should know that there is scarcity of means (resources) to meet the rising cost of social demand for education in Nigeria. Three factors were seen as responsible for the proliferation of social demand for education. These factors were identified and discussed. One obvious fact is that it is very difficult to meet the demand for places in our educational institutions.

Four policy options or strategies are therefore very necessary to redress the education supply gap in Nigeria. These policy options, as enunciated by Nwadiani (2000) include

1. The open-door policy
2. Selective democratic strategy
3. Private-public partnership policy
4. Promoting

#### **1. The Open Door Policy**

The open-door policy is one of the policy options necessary to redress the education demand supply gap. The open door is a situation where places are provided for all those demanding education as far as they satisfy the minimum entry requirements or criteria. There are of course records of open-door policy for educational programmes or educational institutions in Nigeria. For example, the UPE Scheme of the Western Region in 1955, the UPE Scheme of the Eastern Region in 1957 and the Federal Government's UPE Scheme of 1976. These schemes brought with them increased emolument, accurate shortage of classrooms, teaching equipment and facilities. In the end there were surplus school leavers whose "skills" the labour market was not ready to purchase.

## 2. The Selective Democratic Strategy

In the selective democratic strategy, the education door is usually opened to all during the legal limits of compulsory school attendance. Some advanced countries like the United States of America, Britain and France favour the supply of education free for the first nine years. After the nine year period, they then select those who demand further education through a rigid select criteria, payment of school fees and difficult examination to determine promotions. The selection process is usually very competitive. Children of educated elite and the rich usually pass while children of the poor parents fail.

Nwadiani (2000) pointed out that this policy option tends to produce very few manpower that may not be enough to fill up the available and new jobs created.

## 3. Public- Private Partnership Policy

The Nigerian Government dominates the ownership and control of education in Nigeria. The government sees education as its full responsibility to the citizens. The private sector is not well encouraged and supported to contribute to educational development. Yet the government is not living up to its statement in the National Policy on Education (1981) that “education is no more a private enterprise but a huge government venture...” It is obvious that the Federal, State and Local Governments alone cannot shoulder the burden of financing education in Nigeria.

There is therefore need for private participation to meet the growing unsatisfied demand for education. Government should encourage private partnership or private participation in the establishment and funding of education in the country. Nwadiani (2000) and Ogbonnaya (1997) had emphasized private participation in the establishment, funding and Management of education in the country. The Government should allow private individuals to open and manage schools, of course, private schools are now very popular in many States including Abia, Anambra, Edo, Enugu Delta, Lagos, Rivers, Oyo, Ogun, Imo, Osun and Ondo States.

## 4. Promoting Disincentives for Education

Those argue for promoting disincentives to Education State that the government should withdraw its subsidy for education. They insist that beneficiaries should bear the burden or the cost of education. They maintain that government should raise the years of schooling and increase disincentive promotion “over education” and for jobs. The combined effect of all these would be a substantial reduction of the demand for of the demand for education particularly in higher educational institutions.

### Self-Assessment Exercise

Identify the four policy options necessary to redress the education supply gap in Nigeria.



## 5.4 Summary

Our discussion in this unit has shown that a number of factors are responsible for the proliferation of social demand for education four policy options were also considered necessary to redress the education supply gap in Nigeria. It is important that educational administrators and planners should take note of these options to redress the education supply gap in Nigeria.

You should recollect that this unit defined the term social demand for education. Social demand for education is the number of individual demand for education places over time. We also saw that there is scarcity of resources to cope with the demand for education in Nigeria. The reasons why people demand for University education included the mounting educational aspirations of parents and their children, the faith placed on education as a catalyst in over all national development aim the cum the democratic values in the political power drama and the boom in the number of school, age segment of the population. Finally, this unit discussed four options or strategies necessary to redress the education supply gap in Nigeria.

### SELF ASSESSMENT EXERCISE

1. Explain the term “social demand for education”.
2. Give three reasons why people demand for University education
3. Identify the four policy options necessary to redress the education supply gap in Nigeria.



## 5.5 References/Further Reading/Web Resources

Coombs, P.H (1985). *The World Crisis in Education: The View from the Eighties* New York: Oxford University Press

Federal Republic of Nigeria (1981) *National Policy on Education*, Lagos: Federal Ministry of Information.

Nwadiani, M (2000) *Economic Dimensions of Education Planning in Nigeria*, Benin City: Monose Amalgamates.

Ogbonnaya, N. I (1997) *Measures for Voluntary Agency Participation in the Funding of Secondary Schools in A. Ali (ed) Perspectives in Nigerian African Education*, Onitsha; Cape International Publishers.



## 5.6 Possible Answers to Self-Assessment Exercise(S)

### 1. Explain the term “social demand for education”.

Social demand for education is the total number of individual demand for education places over time. Nwadiani (2000) pointed out that social demand for education is dictated by the social, political and economic situations of the time. On other words, the total number of individual demand for education places over time is dictated by the social, political and economic situations of the people at a particular time. (Coombs, 1985) stated that “the social demand for education at times exceeds learning needs as when young people vie for entry into the University not primarily to satisfy their yearning to learn but to obtain a diploma that has special prestige and market value”.

### 2. Give three reasons why people demand for University education

These include

- i). The mounting educational aspirations of parents and their children
- ii). The faith placed on education as a catalyst in over all national development cum the democratic values in the political power drama,
- iii). The boom in the number of school age segment of the population.

### 3. Identify the four policy options necessary to redress the education supply gap in Nigeria

Four policy options or strategies are therefore very necessary to redress the education supply gap in Nigeria. These policy options, as enunciated by Nwadiani (2000) include

- a) The open door policy
- b). Selective democratic strategy
- c). Private-public partnership policy
- d). Promoting