NATIONAL OPEN UNIVERSITY OF NIGERIA

SCHOOL OF EDUCATION

COURSE CODE: EDP 804

COURSE TITLE: Evaluation Strategies in Educational Planning and Implementation

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COURSE GUIDE

EDP 804

Evaluation Strategies in Educational Planning and Implementation

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Introduction

The course EDP 804 – Evaluation Strategies in Educational Planning and Implementation is made up of 21 units, divided into three modules. It is available for students of educational management that offer planning and administration courses especially at the doctorate level. The course covers some germane topics in educational planning such as: the definition of educational planning, basic concepts and phases in planning; objectives and features of educational planning; factors guiding educational planning and lots more. EDP 804 further covers titles such as: definition, purposes, principles and guidelines of targets setting; kinds of evaluation strategies; different types of evaluation and lots more topics as found essential for students offering this course EDP 804.

This text has been developed for students of the National Open University of Nigeria (NOUN) by making reference to materials written by experts within and outside Nigeria and even to some materials sourced on the Internet.

Course Aim

at giving students understanding of evaluation strategies in educational planning and implementation. To this end, the aim will be achieved by exposing the graduate students to contemporary educational planning evaluation strategies which will help them in the course of their performances both in the classroom and outside the classroom. There is also the outline of the expected functions of the educational planners. Further, the course demonstrates to the students how projections of achievement targets can be undertaken by making use of some techniques. Also, the course informed students of how needs assessment can be undertaken while necessary feed back are also gotten.

Course Objectives

In order to achieve the above mentioned aims, the course has overall objectives that were synthesized from the specific objectives of each of the 21 units which are however always made known at the beginning of each of the units. You are therefore advised to read through these stated unit objectives, digest them and ensure that you have achieved then at the end of each unit.

ese objectives should be achieved at the end of the course. On successful completion of the course, you should be able to:

1) Explain the meaning of educational planning.

2) State the objectives and features of educational planning.

3) Discuss the factors that guide educational planning.

4) Mention the stages involved in planning educational programmes.

5) Explain the social demand and manpower requirements approaches to educational planning.

6) Discuss the difference(s) between the rate of return and eclectic approach to educational planning.

7) List the barriers to effective educational planning.

8) Explain the meaning, purposes, principles and guidelines of target setting.

9) Discuss the functions of evaluation of educational planning targets.

10) Describe the kinds of evaluation strategies that we have.

11) State the steps involved in the educational planning and evaluation.

12) Discuss the types of evaluation.

enefits of mathematical models for projections and educational planning.

14) Explain the projection techniques.

15) Describe the different ways and steps by which demand for teachers can be projected.

16) Itemize the steps to be followed in establishing needs of the pupils and the community.

17) Discuss the benefits and barriers of a need assessment.

18) Mention the demands of needs assessment.

19) Explain what feed back is and the types of feedback that we have.

20) Define what Programme Evaluation and Review Technique is.

21) Describe how the Programme Evaluation and Review Technique is used in the implementation of programmes.

Working through this Course

In order for you to have full understanding of this course, you must have read through the study units, referenced and relevant textbooks internet sourced materials and other prescribed materials. Each unit contains Self-Assessment Exercises (SAE) and Tutor Marked Assignments (TMA), which will help you to carry

nt on the course. You are required to submit assignments and class works given periodically while the final examination will be conducted upon the completion of the course. This is a 3 credit unit course consisting of 21 study units.

Course Materials

The major components of the course are:

1.   Course outline.

2.   Course guide.

3.   Study units.

4.   Textbooks.

Study Units

There are twenty one study units in this course EDP 804, Evaluation Strategies in Educational Planning and Implementation. The units are as follows:

MODULE ONE; Objectives and stages in Educational Planing

Unit 1:   Definition of Educational Planning, its Basic Concepts and Phases in Planning Process.

Unit 2:   Objectives and Features of Educational Planning.

Unit 3:   Factors Guiding Educational Planning

Unit 4:   Stages in Planning Educational Programmes.

HES AND BARRIERS TO EDUCATIONAL PLANNING

Unit 1:   Approaches to Educational Planning I.

Unit 2:   Approaches to Educational Planning II.

Unit 3:   Barriers to Effective Educational Planning.

Unit 4:   Definition, Purposes, Principles and Guidelines of Targets Setting.

MODULE THREE; EVALUATION IN EDUCATIONAL PLANNING

Unit 1:   Evaluation of Educational Planning Targets.

Unit 2:   Kinds of Evaluation Strategies.

Unit 3:   Steps to Educational Project Planning and Evaluation.

Unit 4:   Kinds of Evaluation.

Unit 5:   Projection of Achievement Targets.

MODULE   FOUR;PROJECTION   TECHNIQUES   AND   NEED ASSESSMENT IN EDUCATIONAL PLANNING

Unit 1:   Projection Techniques.

Unit 2:   Project of Teacher Demand.

Unit 3:   Quantitative Needs Assessment and Programme Implementation.

Unit 4:   Benefits and Barriers of a Need Assessment.

Unit 5:   Elements of a Needs Assessment.

ning, Types and Purposes.

Unit 7:   Programme Evaluation and Review Technique (PERT).

Unit 8:   PERT   Diagrammes   in   the   Implementation   of   Programmes.

Each of the unit consists of introduction, objectives, content, conclusion, summary and also suggested textbook(s). Amidst the unit is the Self Assessment Exercise that direct you to work on exercises written at the end of each topic or sub-topics.   The purpose of these exercises is to assist you in achieving the stated objectives of the individual units and of the course itself.

Textbooks

Textbooks are reference materials that each and everyone of you must cultivate the habit of having.   This is just related to procurement of books by lawyers, medical doctors, accountants and even architects.   As educational planner, you must procure textbooks related to your field. Though, there are many textbooks on this course, but you are advised to buy some as will be given below, because you will find them very useful for this course and for your personal growth and development.   The recommended textbooks include:

Basic Text in Educational Planning. Department of Educational Management, Ibadan: University of Ibadan.

Longe, R.S. (1987). Fundamentals of Educational Planning. Akure: Fagbamigbe Publishers.

Apart from the textbooks, you are also advised to visit the International Institute for Educational Planning (IIEP) Website.

Assessment

There are two aspects to the assessment of this course. The first is the Tutor Marked Assignment, while the second is the end of the semester written examination. You are expected to apply the information, knowledge and techniques gathered during the course. There are twenty one tutor marked assignments in the course. Seven of them will be used to count as 30% and these assignments must be submitted to your tutor for formal assessment. There will be end of semester examination that will contribute the remaining 70%, while at least 75% attendance at tutorials and counselling sessions must be met.

Course Marking Scheme

The following table shows the breaking down of the marks.

S/N	Assessment	Marks

		Each counts for 10 marks Total = 30 marks of course marks
(ii)	Final Examination	70 marks overall course marks
	Total	100% of course marks

Course Overview

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

Unit	Title of Works	Weekly Activity	Assessment
1.	Definition of Educational Planning, its basic concepts and phases in planning process	1	
2.	Objectives and Features of Educational Planning	2	
3.	Factors Guiding Educational Planning	3	Assignment
4.	Stages in Planning Educational Programmes	4	

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	Educational Planning I	5	
6.	Approaches to Educational Planning II	6	Assignment
7.	Barriers to Effective Educational Planning	7	
8.	Definition, Purposes, Principles and Guidelines of Targets Setting	8	
9.	Evaluation of Educational Planning Targets	9	Assignment
10.	Kinds of Evaluation Strategies	10	
11.	Identifying Steps to Educational Project Planning and Evaluation	11	
12.	Kinds of Evaluation	12	Assignment
13.	Projection of Achievement Targets	13	
14.	Projection Techniques	14	
15.	Project of Teacher Demand	15	Assignment
16.	Quantitative Needs Assessment and Programme Implementation	16	
17.	Benefits and Barriers of a Need Assessment	17	
18.	Elements of a Needs Assessment	18	Assignment

	Types and Purposes	19	
20.	Programme Evaluation and Review Technique (PERT)	20	
21.	PERT Diagrammes in the Implementation of Programmes	21	Assignment

How to Get the Most from this Course

In the distance learning programme, the course guide serves as substitute for the university lecture, while the study units replace the university lecturer. You as a student have the opportunity of reading and working through the specially designed study materials at your organized schedule, pace, place, time that best suits you. So, you can then read each of the units as if you are listening to a lecturer, and also try to understand and get meaning out of each of the contents in each of the units you are going through. Each of the twenty one units follows a common format. The first item is an introduction that acquaints you to the topic to be treated, the next is the learning objectives of the unit which makes you to be able to discover what you should be able to do by the time you complete the unit. Followed by the objectives is

t otherwise called content. It puts you through the body of the work/unit you are reading through.

There are Self Assessment Exercises (SAE) in the course of reading through the content in each unit, by working through these exercises, it will help you to achieve the already state objectives of the units and also get you prepared for both the assignments and the forth coming examination. You are advised to attempt each of the Self Assessment Exercises as you come across them while studying. In cases where you are having questions that are not clear to you or that requires urgent attention, do not hesitate to contact your tutor through the telephone or the e-mail or through some other laid down means of contacting your tutor.

In addition to above, you are advised to:

(1) Read the course guide thoroughly.

(2) Read the course outline very well.

(3) Organise realistically a study schedule guided by the course overview.

(4) Try as much as possible to adhere strictly and faithfully to your study schedule.

(5) Start with unit one by reading through the introduction and the objective for the unit.

...tives for each unit to confirm that you have really achieved them. In case you are not satisfied, then consult your tutor.

(7) Once you are satisfied that you have achieved the unit's objectives you can then proceed to the next unit and ensure that your style of studying is in line with your schedule already laid out.

(8) Remember to always attempt to evaluate yourself by using the Self Assessment Exercises that you have in between each of the contents in each of the units.

(9) Upon the successful completion of the last unit, try as much as possible to review the course and then prepare yourself for the final examination.

Tutor and Tutorials

You will be informed of the dates, time and location of your tutorials, and together with the name and phone number(s) of your tutor as soon as you are allocated to a tutorial group. Your tutor will mark and pass his/her comment on your assignments. You are advised to keep a close watch on your progress and in case you are facing some difficulties while reading through the course, consult your tutor via the e-mail or the telephone. You are further

utor-marked assignments to your tutor well before the due date. They will be marked and turned back to you as soon as possible. Try as much as possible to attend the tutorial sessions because it is one of opportunities you have to have face-to-face contact with your tutor. You can ask questions that answers will be provided to instantly. You can still raise any problem that you encountered in the course of your study. Further, prepare your questions well ahead of your tutorial sessions and there are enough chances of you learning a lot more from participating in fruitful discussion sessions actively.

Summary

At the end of this course, you will be able to provide answers to these kinds of questions after being equipped with the basic knowledge of evaluation strategies in educational planning and implementation.

(1)   How will you define educational planning taking note that different experts had defined it relatively?

(2)   Explain all the objectives of educational planning.

(3)   Discuss the five factors that guide educational planning.

(4)   Explain in details the different stages involved in the planning of educational programmes.

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...rences between the social demand and manpower requirements approach to educational planning.

(6)   What are the barriers to effective educational planning?

(7)   What are the kinds of evaluation strategies that we have?

(8)   Explain the steps to be followed in the process of planning and evaluating of educational projects.

(9)   Discuss the types of evaluation that we have.

(10)   Explain the advantages of utilizing mathematical models for projection and educational planning.

(11)   How are teachers projected according to the student/teacher ratio?

(12)   Explain the steps to be followed in establishing needs of pupils and that of the community.

Evaluation Strategies in Educational Planning and Implementation

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ES AND STAGES OF EDUCATIONAL PLANNING

UNIT 1:   DEFINITION OF EDUCATIONAL PLANNING, ITS BASIC FORMS AND PHASES IN PLANNING PROCESS

CONTENTS

1.0 Introduction

Module one will expose you to many things about educational planning and such include the concept of planning, concept of educational planning, phases in a planning process, and so on. You have to start off from this level, so that some rudiments of educational planning will be clear to you.

2.0 Objectives

At the end of this unit, you should be able to (i) explain the concept of planning (ii) explain the concept of educational planning (iii) state the phases in a planning process (iv) apply the phases in a planning process to federal government's entrepreneurship programme targeted at alleviating poverty in Nigeria.

3.0 Main Content

3.1 Definition of Planning

In defining planning, we can take a look at how God created the Garden of Eden, animals and trees in six days and God's determination that after working for six days, the seventh day should be a day of rest. God in his infinite nature had reasons (objectives) for doing so many things that HE did. Just as God planned for the (i) creation of the world, (ii) human beings (iii) plants and animals and so on, human beings also, do plan for how

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, and vehicle to aid movement from one place to another, house for accommodation and even retirement from place of work. To this end, Fabunmi (2005) said man plans most of his activities in view of some set goals. So, human beings often end up taking decisions at doing certain things because of the reason that he/she wants to achieve specific goals. Dror (1963) and Fabunmi (2005) therefore agreed that planning is the process of preparing a set of decisions for action in the future with the view to achieving goals by optimal means. Branch and Robinson (1968) agreed that planning is a deliberate, organized and continuous process of identifying different elements and aspects of an organism, determining their present state and interaction, projecting them in concert throughout a period of future time, formulating and programming a set of actions so as to attain some desired results. Additionally, Longe (2003) defined planning as a process of establishing priorities for future actions in an attempt to solve economic problems, which stem from the existence of scarce resources. Planning therefore means giving thoughts to the goals, targets, aspirations and even priorities of a given nation.

Self Assessment Exercise (S.A.E.):

At this juncture, can you think of what planning is, by examining the different definitions given above?

3.1.1 Definition of Educational Planning:

Different experts have defined educational planning in different ways and these will be examined now. But note that the definition of educational planning arose from the definitions of planning that was examined in section 3.1 above. So, Educational planning is the process of preparing a set of decisions on education

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the goals, targets and objectives of education will be realized in the future, through the rational use of available scarce resources. Fabunmi (2005) further opined that educational planning is a continuous process of obtaining and analyzing facts and, from empirical base, of providing information for decision makers on how best the education system is to accomplish its goals and how best to achieve cost-effectiveness of education programmes. In addition, Longe (2003) said educational planning involves taking of decisions for future action with the view to achieving predetermined objectives through optimum use of scarce resources. Therefore, the coverage of educational planning includes curriculum planning, target planning and manpower planning within the education sector.

If we take a cursory look at above definitions about planning and educational planning, one will note that there are some terms that are common in the definitions. These are: (i) rational use of scarce resources (ii) future orientation (iii) achievement of set goals, and targets.

3.1.2 Forms of Planning:

As a student of educational planning, you need to understand some of the forms of planning that are often used in educational management, as will be explained below. This is very essential so that you will be able to explain these concepts to laymen outside this discipline. The forms are explained as we have below:

(i)   **Development Planning:** Development Planning is a process by which an individual(s) ensure conscious, judicious and

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...cation of nation's scarce resources which is targeted at the realization of national goals and targets.

(ii) **Sectoral Planning:** Nigeria as a country is made up of different units, otherwise called sectors. These sectors include: agriculture, mining, industry, commerce, communications, education, health, labour and social welfare, information, power, transportation and so on. This can be likened to an human being that is made up of eyes, nose, mouth, hand, leg and so on, but once pulled together, is known as human being. Each of the sectors need to be catered for such that there will be rational and thoughtful allocation of scarce resources to meet the need of the above mentioned agriculture sector, education sector, communication sector, information sector and so on.

(iii) **Sectional Planning:** From each of the sectors above, there are sections that make up the sector(s). You will remember that as a student, you passed through (i) nursery school (ii) primary school (iii) secondary school and now the (iv) university. Though, there are some of you that also passed through the Grade II Teachers' Colleges, Colleges of Education and even Polytechnics or Monotechnics. Each of the school level constitutes a section of the education sector, which when pulled together make up the sector called 'education'. Sectional planning however implies the thoughtful and rational allocation of scarce resources to each of these sections within the education sector, targeted at meeting the realization of their respective targets and goals.

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ng: Curriculum is a set of educational activities that students are expected to pass through and taught in the classroom environment by the respective subject teacher. Though, these days learning do take place outside the classroom environment. This is such that students carryout self learning with their learning materials and via the Information Communication Technology (ICT). So, curriculum planning is the preparation of curricula, timetables and different norms for students' assessment. These exercises are carried out by teachers.

(v)   **Technical Planning:** This is the type of planning that involves the formulation of quantitative targets which aimed at realizing some sets of quantitative ends.

(vi) **Manpower Planning:** This is the active labour force within a country. They are the human resources available to a country and usually between the ages of 18 to 65 years. They are produced by different educational institutions and employed in different sectors of the economy.   In short, manpower planning is the process of allocating scarce resources towards the production of qualified manpower in different areas of need.

(vii) **Participatory Planning:** The word participatory implies a situation where different people, experts, stakeholders are involved in the process of planning. The stakeholders include parents, labour employers, labour unions, students union, communities, organizations, governments at different levels who all from different angles do contribute to contents of what is taught to students in schools.

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cro simply means small and fragmented
is a ward, council, district, local
government which is smaller than a state. Also, a state is
smaller than the country. So, micro planning is the
allocation of scarce resources at the micro or grassroots level.
It is the opposite of macro planning.

(ix) **Macro Planning:** Macro planning means allocation of scarce
resources to the achievement of stated goals at the global or
larger or national level. Macro implies larger group or
national level or bigger level. The macro planning has to do
with yearly national budgets.

S.A.E.: Explain the following concepts of planning: (a) development
planning (b) sectoral planning (c) sectional planning (d)
curriculum planning (e) technical planning (f) manpower
planning (g) participatory planning (h) micro planning (i)
macro planning.

3.1.3 Phases in a Planning Process:

The process of planning takes different phases and these will
be explained below. It is essential to explain the phases so that
you as a student of educational planning will be able to explain to
individuals who have nothing to do with education, the different
phases involved in the planning process. The phases are as
follows:

(a) **Policy Making:** There are different policies such as
educational policy, economic policy, sports policy, health
policy, defense policy and so on and so forth. Owolabi (2005)

...licy falls into one category of action, or doing, intentionally undertaken with a specific purpose in mind. Further, an action is qualified to be described as policy because among other things, someone is doing something as an action and the person undertook the action with a particular purpose in mind. At this stage, there is the initiation of a policy that is large (or otherwise called broad) and Fabunmi (2005) said that policy is a political statement that is backed up with legislation.

(b) **Plan Formulation:** Plan formulation evolves from the stated policy above. The plan however contains some statistical analysis. For instance, of how many students are to be admitted, how many will be promoted, how many students' chairs, tables, beddings should be provided e.t.c.? All these and many more you can think of comes under plan formulation.

(c) **Plan Implementation:** In as much as there are plans, it is necessary to ensure that such plans does not end up on the shelve but rather, see the light of the day. Therefore, plan implementation is the next phase in a planning process. This phase ensures that whatever that is on paper is thoroughly carried out to the letter. Invariably, the issue of plan implementation is an administrative function.

(d) **Plan Evaluation:** It is good to evaluate or assess what was done. In fact, God the creator of heaven and earth evaluated what HE created and concluded that they were good. The final phase in the planning process is plan evaluation. Plan has to be evaluated to be able to find out areas of lapses so

be effected. However, if there are areas of strong points, evaluation will show this and it is a pointer to the fact that someone should not rest on his/her oars, rather to press forward.

S.A.E.: Explain in details the phases involved in a planning process.

4.0 Conclusion

The place of planning in the educational enterprise in a country cannot be over emphasized. Each country needs to plan her different sectors, education inclusive. Furthermore, the different phases involved in the planning process were explained.

5.0 Summary

This unit examined the definitions of (i) planning (ii) educational planning (iii) different forms of planning and the phases involved in a planning process.

6.0 Tutor-Marked Assignment:

(i) How will you define educational planning?

(ii) Apply the phases of planning you were taught to the Nigerian government's entrepreneurship programme of alleviating poverty.

7.0 References/Further Readings

Branch, M. and Robinson, I.M. (1968). Goals and Objectives in City Comprehensive Planning. Town Planning Review, No. 4(38), pp. 262.

nning Process. International Review of Administrative Sciences, 29(1), pp. 26.

Fabunmi, M. (2005). Perspectives in Educational Planning. Ibadan: Awemark Industrial Printers.

Longe, R.S. (2003). "Introduction to Educational Planning". In Babalola, J.B. (Ed.) Basic Text in Educational Planning, Department of Educational Management, University of Ibadan, Ibadan.

Owolabi, S.J. (2005). Policy Making and Educational Policy Analysis. Uganda: Makerere University Printery.

AND FEATURES OF EDUCATIONAL PLANNING

CONTENTS

1.0 Introduction

In unit one of this course, you were exposed to the definitions of (i)planning (ii)educational planning; different forms of planning and the different phases in a planning process. It is believed that as a student of educational planning, you will be able to carve out your own definition of what: planning and educational planning is. Furthermore, you will be able to explain the different forms of planning as shown to you in unit one of this course. In addition, you will be able to explain to individuals that have nothing to do with education the different phases involved in a planning process. As a follow up to the above, this unit will examine extensively the objectives of educational planning.

2.0 Objectives

At the end of this unit, as a student, you will be able to mention the different objectives of educational planning. You will also be able to explain each of these objectives as clearly as possible to your colleagues and those outside the education faculty.

3.0 Main Content

3.1 Objectives of Educational Planning

God in HIS infinite mercies has the objectives of creating a man, a woman, animals, heavens, and everything that is received from God. As human beings, you have objective(s) for being what you are, doing what you are doing, and coming to offer or run a course at the National Open University of Nigeria (NOUN).

reasons (or objectives) for running this specific programme that you are running and not go ahead to read Law, Theatre Arts, Economics, Mathematics, Physics, Teacher Education and so on. Each of the countries in the world has their respective objectives for having relations with other countries. So also, each nation has education as one of the sectors that make up such nation, which is planned for. There are objectives why scarce resources are allocated to the first level of education (primary), second level (secondary) and third level (tertiary) of education. However, by putting everything together, there are reasons why different countries allocate as much as 26 percent (UNESCO's recommendation to all countries of the world) to education sector. Some countries however, have their reasons for allocating percentages that is less than the UNESCO's recommendation to the education sector. You need to remember however, that while you were a student of ordinary level economics, it is a common knowledge that resources are scarce, and so this might be responsible for the allocation of different percentages to education sector by the different countries.

Be that as it may, our point of focus in this unit is to explain as clearly as possible the different objectives of educational planning.

3.1.1 Educational Planning Enhances Educational Growth and Development:

One of the re-knowned economists Todaro as at 1985 said notably that every nation strives after development, and that it is one of the objectives that most people take for granted. Therefore, to Todaro (1985), development is not only an economic

...ucational, industrial, infrastructural and so on. This is because it is more than material and financial side of people's lives. Development is therefore a multidimensional phenomenon which involves the reorganization and reorientation of the total economic and social systems. In addition, development has to do with radical changes and reduction in inequality in all ramifications. However, from the economic perspective, you need to know that economic growth is the steady process by which the productive capacity of a given economy increases over time with the aim of bringing about rising levels of national income. You need to know also that in the developing economies, Todaro (1985) affirmed that the planners, economists and even the politicians are usually concerned with rapid economic growth. You can discover that development is broader and larger than growth due to its focus of reorganization and re-orientation of both the economic and social systems. But growth is concerned majorly with numerical increase in national income of a given nation. If the above explanations should be applied to education, both growth and development is inevitable and every countries of the world, Nigeria inclusive, must strive to achieve it. Remember that there should be improvement in infrastructural facilities, improved funding of the education sector as agitated by different experts in the education sector and lots more. On the whole, educational planning should target at educational growth and educational development.

3.1.2 Production of Needed Skilled Manpower:

The economy of a given nation, like Nigeria as earlier said, is made up of different sectors such as health, education, sports, banking, manufacturing, transportation, and tourism and so on.

managed by qualified and well trained manpower, which have undergone training for a specified length of years. It is the duty of the tertiary institutions (Universities, Polytechnics, Monotechnics, Colleges of Education and so on) to produce this manpower that will invariably be injected into the economy. But you need to remember that the required length of training of the skilled manpower vary from one discipline to another. For instance, for manpower in the areas of Arts, Social Sciences and Education, it takes four academic sessions especially for entrants through the Joint Matriculation Examinations, while it takes three academic sessions for the direct entry candidates. For the manpower that are trained in the law, agriculture and technology, it takes five academic sessions, while those in the medicine, dentistry and some other medical disciplines are trained for seven academic sessions. It is however important that the manpower be trained and regularly injected into the Nigerian economy because of the need to ensure that there is production of proper ratio of these manpower to cater for the Nigerian population and also to take care of workers that reach the retiring age in each of the years. To this extent, the table below shows the summary of graduands (or trained manpower) of the University of Ibadan for the 2005 and 2006 academic sessions.

Postgraduate Diploma and Higher ...ower Trained by the University of Ibadan for the Years 2005 and 2006

Faculty/Institute/ Centre	PGD		Masters				M.Phil		MPH		Ph.D		Total	
			Academic		Professional									
	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006
1. Arts	15	3	236	284	20	26	03	04	-	-	42	23	316	340
2. Sciences	07	62	179	240	01	39	05	02	-	-	33	22	225	365
3. Basic Medical Sciences	-	-	86	49	-	-	01	-	-	-	04	07	91	56
4. Clinical Sciences	-	6	18	36	-	-	-	-	-	18	01	01	19	61
5. Public Health	-	-	29	32	-	-	01	-	19	17	02	08	51	57
6. Pharmacy	07	-	22	31	-	-	-	-	-	-	01	04	30	35
7. Agriculture & Forestry	-	-	152	210	03	09	02	05	-	-	35	38	192	262
8. The Social Sciences	-	-	210	186	420	498	01	-	-	-	19	14	650	698
9. Education	248	51	527	451	80	172	-	-	-	-	46	29	901	703
10. Technology	-	01	41	108	-	08	01	-	-	-	06	13	48	130
11. Law	-	-	57	10	-	-	-	-	-	-	-	-	57	10
12. Veterinary Medicine	-	-	19	20	-	-	-	-	-	-	08	07	27	27
13. Institute of African Studies	-	-	86	144	-	-	01	01	-	-	04	05	91	150
14. ARCIS	-	-	39	33	-	-	-	-	-	-	03	02	42	35
15. CEPACS	-	-	23	20	-	-	-	-	-	-	-	-	23	20
16. Institute of Education	85	-	23	61	-	-	-	-	-	-	05	08	113	69
Total	362	123	1724	1915	547	752	15	12	19	35	209	181	2876	3018

Sources:

(a) Research Frontiers. Bulletin of the Postgraduate School, University of Ibadan, Vol. 3, November, 2005.
(b) Research Frontiers. Bulletin of the Postgraduate School, University of Ibadan, Vol. 5, November, 2006.

The table above shows the summary of educated manpower produced at Postgraduate Diploma and higher degree levels by the University of Ibadan for the years 2005 and 2006.It should be noted however that the higher degree level is made up of Masters (academic and professional with M.A; M.Sc; M.Ed), Master of Philosophy, Master of Public Health (MPH), Doctor of Philosophy

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ows the sixteen faculties, centres and institutes that exist in the university.

Faculty of Arts produced a total of 316 and 340 postgraduate products in 2005 and 2006 respectively. The breakdown shows that in the year 2005 the educated manpower production is as follows: PGD-15;M.A(academic)-236;M.A(professional)-20;M.Phil-03;Ph.D-42. In 2006, the production is as follows: PGD-03; M.A (academic)-284; M.A (professional)-26; M.Phil-04; Ph.D-23.

The Faculty of Science produced 225 and 365 products in respectively. In 2005, the production is as follows:PGD-07;M.Sc(academic)-179;M.Sc(professional)-01;M.Phil-05 and Ph.D-33.In the year 2006, PGD-62;M.Sc(academic)-240;M.Sc (professional)-39;M.Phil-02 and Ph.D-22.

Faculty of Basic Medical Sciences produced the following educated graduates as follows: In 2005, M.Sc (academic)-86;M.Phil-01 and Ph.D-04.In the year 2006,M.Sc(academic)-49;and Ph.D-07.The Faculty of Clinical Sciences produced a total of 19 and 61 products in 2005 and 2006.While Faculty of Public Health produced 51 and57 postgraduate products during the years under consideration. This is followed by the Faculty of Pharmacy with a total of 51(2005)and 35(2006).The Faculty of Agriculture and Forestry produced in the years under consideration a total of 192 and 262 higher degree graduates respectively.

Faculty of the Social Sciences produced 650 and 698 products in 2005 and 2006, while the Faculty of Education produced 901 in 2005 and 703 in the year 2006.Faculty of Technology however produced 48(2005)and 130(2006).The Faculty of Law does not produce any doctoral products in 2005 and

ers(LL.M) graduands numbering 57 and

For the Faculty of Veterinary Medicine, there were 19 and 20 M.Sc(academic);08 and 07 Ph.D products for the years 2005 and 2006.Institute of African Studies produced 86 and 144 academic master;01 (M.Phil)each;04 and 05 Ph.D graduates for 2005 and 2006 respectively. Additionally, Africa Regional Centre for Information Science(ARCIS) produced 39 and 33 (M.Sc Inf Sc. products)for years 2005 and 2006,while it produced 03 and 02 Ph.Ds.

Centre for Peace and Conflict Studies(CEPACS) produced 23 and 20 M.A products for the years 2005 and 2006.Institutes of Education produced 85 PGD products in 2005,23 and 61M.Ed(academic);05 and 08 Ph.Ds in 2005and 2006 respectively.

Akangbou (1987) and Ayodele (2005) said that efficiency is the relationship between inputs (resources) that is used up by a system and the outputs (or objectives) produced by such system. A system can be said to be efficient if it can bring forth maximum output with the given limited quantity of input. Ebhohimen (1989) asserted that the efficiency of the educational system or its sub-system lies in its ability in converting those scarce resource inputs employed in teaching and learning to production of useful outputs with longer term benefits. Summarily, efficiency has to do with relationship between resource inputs such as money, time, efforts, e.t.c. and expected results such as production of teachers, engineers, nurses, architects, secretaries, accountants, e.t.c. Internal efficiency is the relationship between the resource inputs within a given system (education or health) and the outputs (graduates).Whereas, external efficiency is the relationship between the inputs from the education sector (e.g. accountants, architects, agriculturists, sportsmen and women, e.t.c.) and the outputs of the whole economy. Giving the conducive environment, necessary working tools and autonomy, the inputs from the education sector will yield greater outputs of the national economy. In short, if the inputted resources invariably yield maximum outputs, there is efficiency in the system. But if the inputted resources does not yield maximum outputs, the system is said not to be efficient.

S.A.E.: Mention the first three objectives of educational planning taught to you.

Ensures Taking of Rational

Decisions are said to be rational if it will yield favourable outcome. Among the rational decisions that can be taken are: (i) employment of required educated manpower within the economy as at when due (ii) construction of classrooms to accommodate increasing student enrolment (iii) production of needed textbooks for students of first, second and third levels of education (iv) construction of roads and other needed infrastructures. Decisions that are not rational include: (i) irrational retrenchment of workers (ii) unwitting destruction of houses and school buildings (iii) irrational spending of money. You as a student of educational planning must ensure that you take rational decisions in all your ways and in whatever little that you are doing or engaged in.

3.1.5 Ensuring Efficient and Effective Allocation of Human, Material, Financial, Time and Other Resources:

This is another objective of educational planning. Remember that there are different types of resources made used of in the process of production of educated manpower in the education sector, among which are human, materials, financial, time, infrastructures and so on. These resources are germane to the success of any education enterprise. You should note that the highlighted resources are also scarce and not readily available for use. Therefore, there should be efficient and effective allocation of these resources to the required and pressing points of need at one point or the other.

, Economic, Political Growth and Countries:

Another objective of educational planning is the enhancement of socio, economic, political growth and development of giving nations. If you remember very well, the issue of growth and development that was discussed in section 3.2, we discovered that both growth and development is inevitable and every country of the world strive towards it. Educational planning aims at improving the social status and situation of individuals and the society. Educational planning also targets at improving the economic growth and development in all ramifications, such that there will be improvement in the per capita income of individuals and overall improvement in the income of the country as a whole. Political growth and development of countries will also be enhanced, if there is educational planning. Political growth and development is in the areas of organization of credible and worth-while elections free of rigging and malpractices at whatever level. So, there will not be rigging or different ills that are known to characterize bad elections. Also, political growth and development will be enhanced when there is successful transition in governance from non-opposition to opposition party and vice-versa in a given country.

S.A.E.: Explain as clearly as possible five objectives of educational planning.

3.2 Features of Educational Planning

As an individual, you have your feature or characteristics which are known to you, your wife, your children, your colleagues in the office and even your family members. If as an individual, we have our respective attributes, educational planning too has its attributes which will be examined now. The following are the features of educational planning:

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Defined and Stated Objectives:

Statement of objectives is a strong pre-requisite to the success of any education enterprise or endeavour. For example, an objective might be production of 100 engineers at the end of an academic year by Nigerian universities. Another one might be providing access to 1,000,000 secondary school entrants who will be inputs into the universities, polytechnics and colleges of education at the end of each school academic session. However, there is the need to ensure that educational plan must be based on well defined and stated objectives which will prevent derailment of purpose. Ayo (1988) recorded that the Nigeria's Third National Development Plan (1975 – 1980) was an improvement over the Second National Development Plan especially in terms of definition of objectives. Though, the five cardinal objectives of the Second National Development Plan were expanded into seven more specific objectives as follows: (i) increase in per capita income (ii) more even distribution of income (iii) reduction in the level of unemployment (iv) increase in the supply of high level manpower (v) diversification of the economy (vi) balanced development; and (vii) indigenization of economic activities. In that wise, he noted that the overall strategy of the plan was to utilize the resources from oil to develop the productive capacity of the economy and thus, permanently improve the standard of living of the people. The stated objectives of the Third National Development Plan were realized as a result of the optimism generated by the unusually favourable financial circumstances under which the country operated on the eve of the plan. So, there was a sharp increase in both the price of crude oil as well as its level of production.

Coming back to the education scene, just as the objectives of Nigeria's National Development Plans were clearly stated, the objectives

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should be well stated, so that it can be realized.

3.2.2 Plan Must be Flexible to allow Development to Take Place:

You need to remember that what is permanent is change. Educational plans must be flexible enough, to give room for changes in terms of additions, subtractions and even modifications. If you remember very well that as students in the primary and secondary schools in the 1960s, 1970s, and even 1980s, there was nothing known and called ICT (Information and Communication Technologies). But in the 21st century, the household name is ICT, which has made the whole world to become a global village. The advent of ICT is new in our educational system, and you should know that for us as a nation not to be left behind the developments round the world, we have to accommodate the emerging changes and adapt them to our situation. Remember therefore, that any educational plan must give room for flexibility in order to allow for development to take place.

3.2.3 Educational Plan Must be Timely and Reasonable:

As much as there are different decades denoted by one thing or the other as usually done by United Nations, a country's educational plan needs to fall in line with such declared decades. For example, there were decades of Sustainable Development, Education For All (EFA); Health For All (HFA); Water For All (WFA); Environment and Global Warming (EGW). These are timely targets and programmes declared by the United Nations. The expectation is that all countries of the world will work towards the realization of such stated targets. Nigerian educational plan must be such that will fit into these United Nations decade declarations which is timely, reasonable and human development focused.

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...e Based on Available Facts and Premises and Not on Ordinary Op inion or Rule of Thumb:

At this juncture, the place of conduct of census every ten years cannot be over emphasized. If it is conducted, there are available facts and figures that will serve as guide to educational planners and policy makers. The availability of up-to-date statistics goes a long way at helping a nation to put up statistics backed up plan, and not educational plan that is based on rule of thumb or ordinary guess. So, as students, remember that in order to have an acceptable plan devoid of suspicion or guess, there should be adequate statistics to back up any plan that is being worked out by the government. Infact, statistically backed up plans will not give room for wastages or over shooting of figures. Rather, there will be adequate and exact plan preparation for the beneficiaries of such plans.

S.A.E.: Why do you think that educational plan must be based on available facts and premises and not on ordinary opinion or rule of thumb?

3.2.5 Educational Plan Must be Communicated in Clear Language of Instruction:

Communication is powerful and takes place between at least two persons. It must be noted that whatever plan(s) that is been put together is to work for some specific individuals. In as much as it is recognized that plans are meant for some people, such educational plan must be communicated in clear language so that the intent of such plan will be made clear to the beneficiaries without any suspicion from anybody.

3.2.6 Educational Plan Must be Attainable and Feasible:

The purpose of conducting census exercises is to create a data bank from which needed statistics about a country's development targets

data are readily available, the educational plan can be determined to be for specified number of people, and therefore, will not be outrageous or non attainable. Furthermore, as a result of the available statistics, it will be easy for such plans to be feasibly carried out without recourse to rule of thumb.

3.2.7 Educational Plan Must be Simple in All Dimensions:

Educational Plan must be simple in all dimensions in terms of its contents such as the introduction, body and conclusion and even the objectives. The simplicity is essential because it might be another person that will execute such written educational plan. If however, the originally written plan is complex to the extent that it is not easily understood, its implementation might not be thorough as it should be.

3.2.8 Educational Plan Must be Economical:

All plans whether educational, health, economic, infrastructural must not be costly when it comes to its implementation. Resources are scarce, implementation of educational plan must not be expensive such that it will gulp so much money during its implementation. There must not be room for extravagant spending.

S.A.E.:   Explain the different features of educational planning that you know.

4.0   Conclusion

In conclusion, the explicitness of the objectives and features of educational planning makes each and everyone to view what such objectives are and to assess whether they are achieved or not.Also, there can be an assessment of whether the educational plan exhibits the features as earlier explained.

In summary, this unit had examined what the different objectives of educational planning are, and likewise the different features of educational planning.

6.0 Tutor-Marked Assignment

(i) Explain all the objectives of educational planning that you know.

(ii) What are the characteristic features of educational planning?

7.0 References/Further Readings

Akangbou, S.D. (1987). The Economics of Education: An Introduction. Ibadan: Shaneson Limited.

Ayo, E.J. (1988). Development Planning in Nigeria. Ibadan: University Press Limited.

Ayodele, J.B. (2005). Fundamentals of Systems Analysis in Education. Lagos: Bolabay Publications.

Ebhohimen, P. (1989). The Relative Efficiency of Two Class Cohorts: The Case of Bendel State Secondary Schools during 1979-1985 Period. Journal of Nigerian Educational Research Association, Vols. 9 and 10, pp. 1-14.

Todaro, M.P. (1985). Economics for a Developing World. Essex: Longman.

1.0 Introduction

This unit will examine the different factors that guide the formulation of educational plans and the duration of educational plans will also be examined.

2.0 Objectives

At the end of this unit, you should be able to: (i) list the factors guiding educational planning (ii) explain the five factors guiding educational planning (iii) explain the different duration of a plan.

3.0 Main Content

3.1 Factors Guiding Educational Planning

There are different factors that guide educational planning and the factors are explained below:

3.1.1 Availability of Planning Experts:

An expert is someone that has undergone formal educational training in designated tertiary institutions and also certificated. Additionally, an expert would have undergone different on-the-job training in form of workshops, conferences, symposia and so on. If there are educational planning experts, their experiences about the knitty gritty of the work will positively affect the process of educational planning. As a student, you can determine who is an expert, based on the acquired skill, the certification and performance while on the field. One of the Nigerian economic and development planning expert in the person of Edward Jide Ayo, who authored the book "Development Planning in Nigeria" wrote in his book that he had the opportunity of participating in the preparation and execution of all the four National Development Plans. He added that as at the 1960s, the Nigerian

by being under-developed. But due to the rigorous economic planning that was put in place by government, there had been structural transformation. To this end, if economic and development planning experts can give such testimony, then educational planning experts should even have better testimonies about their area(s). The availability of planning experts is germane as a factor that guides proper educational planning.

3.1.2 Population Growth:

Population has to do with the human composition of a given area, state, nation or even continent. The population is however made up of children, boys, girls, men, women, people that are specially created or put in another way, people that are physically challenged. Though, they believe that it is in such disability that there is ability. You need to note that year-in, year-out, there are changes in the population composition such that people that were boys/girls will increase in age and become men/women, while those that were children, will graduate to become boys and girls and invariably adults. You need to note further that educational need of the children is different from that of the young boys and girls who are in the primary school level, while that of men and women who are at the third level of education is also different. As much as there are differences in the population growth relative to the different age groups, their educational needs will also differ. Summarily, the growth in population is one other factor that guides educational planning.

3.1.3 Favourable Political Environment:

The stability of a nation's political situation or environment is a function of progress in varied dimensions. Non occurrence of coup and

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...asis in a nation's polity is a good omen of favourable political environment. If however, there is political instability as a result of coup and counter coup, Adepoju (1998) affirmed that good educational plans are tend to fail. The reason being that if the educational plan was put together by a civilian government, and the military hijack the government, democratically put together education plan will not see the light of the day, rather, the military will put together their own thought fit education plans. Nigeria between 1983 and 1999 experienced an unstable political environment in which there were coups and counter coups, and to this end, there could not be any reasonable educational plan(s) that can be made during the unstable Nigerian polity.

S.A.E.: Mention the first three factors guiding educational planning as discussed with you.

3.1.4 Religion:

As a student, each and every one of you belong to a religious sect which could either be Christianity, Islam or other forms of religions. It is pertinent that each individual will not want his/her religion to be parked aside and not be considered in the course of educational planning. So, religion is a strong variable of consideration while planning education for a given community. This is to give room for acceptability of the proposed plan by the beneficiaries of such educational plan.

3.1.5 The State of the Economy:

This is another factor that influences educational planning. The state of the economy implies how financially buoyant and capable the country is to be able to implement the proposed educational plan. It should be noted that an economy that do not depend on a single means of foreign earnings stands the opportunity of realizing favourable foreign

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…at is diversified in terms of means of foreign …change earnings will benefit from such varieties and be able to boost of been favourable at financing her educational plan.

3.2   Duration of Plan

Time specification is highly important in any form of planning. The reason being that the main task of an educational planner is to construct strategies into a plan of action over an identified time – horizon that may however vary from a few days to a number of years (Longe, 1987).   As a student, you are expected to have specified time that will be spent on this programme which might be four academic sessions or more. Whatever is the situation, you will have a minimum period of study that you can spend on this programme, and while there will also be a maximum period of study on the programme at National Open University of Nigeria. You cannot be on a programme forever without completing such registered for programme. To this end, an educational plan, also has duration which might be short-term, medium-term or long-term. Each of this duration will be explained below for clarity.

3.2.1 Short-Term Plan:

Different authors have different views about the meaning of short-term plans. Experts like Longe (2003) maintained that a short-term plan covers a period of one year or less. Atanda and Lameed (2006) said a short-term plan extends over one to three years.   Business Dictionary.Com (2009) said a plan with a planning horizon of five years or less is called short range plan. Therefore, as a student, you can carve out what you mean by short-term plan. But in this text, a short-term plan is that plan that spans between one to three years. This short-term plan is a short-term schedule that can be adopted by a country or a firm for urgent or emergency reasons.

Adepoju (1998), Atanda and Lameed (2006) both said that a medium term plan is the plan that covers between 4 to 5 years and it is thought to be operationally most efficient. Both Adepoju (1998), Atanda and Lameed (2006) agreed that medium term plan can be a fixed term or a rolling plan in which there is preparation for four to five year plan in succession as it is with Nigeria's National Development Plans for the years 1970-1975; 1975-1980; 1980-1985. A medium term plan may however be on a rolling basis where by there will be adoption of the practice in which a plan will extend by one year at a time. As much as that is done, there will be revision of the plan's targets based on the gained experience during the process of implementation of the set plans. Ayo (1988) said that the nation Nigeria targeted the operation of the 3 year rolling plan for 1990-1991-1992. Such was not possible because Nigeria went through a "chequred" period in her economic planning efforts.

3.2.3 Long-Term Plan:

Business Dictionary.Com (2009) said that long term planning is targeted at meeting the future needs which is however estimated through the means of extrapolation of present and known needs. The long-term plan can also be called the perspective plan. It is a plan that spans between 10 to 25 years. The Nigerian government according to Ayo (1988) adopted the 15-20 year perspective plan for the period 1990 to 2009. There was an expectation however that the first phase of the Nigeria's perspective plan would constitute the fifth National Development Plan. The target of the perspective plan was to put in place 9 strong base for the long-term development of the economy especially with respect to some fundamental sectors. Like education, agriculture,

...es and energy (power). The long term plan carries out the duty of helping to show to the world the major landmarks realizable in educational development. Students, I hope you remember that education is a social service and it is also capital intensive, while its results are measurable only after a considerable time span that can without mincing words extend over many decades. Remember that the education enterprise is not like the enterprise of buying of rice, yam, beans and so on, whereby the seller can within the twinkle of an eye calculate his or her expected profits immediately. A good example of the long-term plan is the task that Ashby Commission was saddled with as at 1959, to project for 20 years (1960 – 1980) the middle and senior level manpower need for Nigeria, which was targeted towards the attainment of Nigeria's independence in 1960. It was during this period that Nigeria could be said to prepare for absorption of her higher education trained manpower into the economy. Infact, it was such a situation whereby firms go to scout for best brains that were willing to work with them (firms). Remember that as at the said period, the spate of unemployment was not noticeable, because there were plans put ahead by the set up commission, targeted towards trained manpower absorption by the Nigerian economy. If one tries to look back at such good days, how good it would have been that there are other commissions set up by the Nigerian government to plan for manpower absorption for 1980-2000; 2000-2020; 2020-2040 A.D and so on, and so forth. This effort would go a long way at ameliorating the pronounced problem of unemployment that is ravaging the Nigerian economy.

S.A.E.: What are the differences among the short-term, medium-term and long-term plan?

There are different factors that guide different activities engaged in by each and everyone, and so there different factors that guide the educational planning also. Further, the duration of a plan was examined, as this will provide different durations that government can tilt its educational plans towards.

5.0 Summary

In summary, this unit had examined the factors guiding educational planning. It had also explained in details the duration of a plan.

6.0 Tutor-Marked Assignment

    (i)   Itemise the factors that guide educational planning.

    (ii)   Explain the five factors that guide educational planning.

    (iii)   Explain the following plan duration (a) Short-term plan, (b) Medium term plan and (c) Long-term plan.

7.0 References/Further Readings

Adepoju, T.L. (1998). Fundamentals of School Administration, Planning and Supervision in Nigeria. Ibadan: Alafas Nigeria Company.

Atanda, A.I. and Lameed,W.O. (2006). *Essentials of Educational Management*, Ibadan: Awemark Industrial Printers.

Ayo, E.J. (1988). Development Planning in Nigeria. Ibadan: University Press Limited.

Business Dictionary.Com (2009). Short Term Plan Definition. http://www.businessdictionary.com/definition/short-term-plan.html. Retrieved 14 September, 2009.

Longe, R.S. (1987). Fundamental of Educational Planning. Akure: Fagbamigbe Publishers.

tion to Educational Planning". In Babalola, in Educational Planning, Department of Educational Management, University of Ibadan, Ibadan.

...NING EDUCATIONAL PROGRAMMES

1.0 Introduction

There are different stages in life and in unit 4, we will examine the stages involved in the planning of educational programmes. This will serve as guide to everyone that is involved in the planning of different educational programmes.

2.0 Objectives

At the end of this unit, you should be able to: (i) mention the different stages involved in planning of educational programmes (ii) explain each of the stages in planning of educational programmes.

3.0 Main Content

3.1 Definition and Identification of Needs

Economists agreed that human needs are varying and insatiable. You as a student found that you need to improve yourself and hence your registration for this course. There will be lots of disadvantages on your side either at work, at home, amongst your colleagues if you do not register for this programme you embarked on with the National Open University of Nigeria. Your completion of this current programme does not imply that you will not register for another programme that is of interest to you, though, dependent on if you satisfy the prerequisite ordinary level requirements. So, as an individual, our needs are different and can be defined. Also, in the course of planning for educational programmes, the first stage is the definition and identification of needs. You can then ask these questions as follows that: needs for what? needs for who? and so on and so forth. In defining the needs, there should be proper understanding of what educational needs are. However, educational needs can be: space need, infrastructural need, information

need, manpower need, training need for teaching and non-teaching staff, and lots more. I know that you as a student can further identify the different educational needs in the educational system.

3.1.1 Formulation of Problem:

The formulation of problem has from time immemorial been posing problems to individuals and students inclusive. Inability to define what the problem is will not provide clarity about getting a picture of what an educational problem is. So, Adepoju (1998) advised that the adequate formulation of the problems will help in determining how effective the solutions or decisions will be enhanced towards getting workable solutions to the problem.

3.1.2 Consideration of Premises:

The term premises here refer to the environment in which the planned educational programmes will be carried out. It must be convincingly noted that environment plays a significant role in successful carrying out of educational programmes. There are situations in which the environment will be hostile and not accommodating. This can be as a result of occurrences of natural disaster such as earthquake, erosion, flood, climatic conditions and climate change and so on. Situations like these will work against successful implementation of planned educational programmes. On the other way round, if the highlighted natural occurrences do not occur, the premises in which educational programmes will be carried out will be favourable, rewarding and welcoming. As a student, remember that when you are ready for lectures, your environment might not be ready. Your environment might be ready while you as a person might not be ready for classes. In these two situations learning cannot take place and planned educational

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e successfully carried out. But if the environment is ready and friendly, while the learner too is ready, the planned educational programme will be successfully carried out. On the whole, there is the need for a state of equilibrium, balance and stability between the premises, educational premises and the recipients that will benefit from such educational programmes.

S.A.E.: Of what importance is the consideration of premises in the stages of planning for educational programmes?

3.1.3 Identification of Alternatives:

Problems are bound to occur, while solutions are bound to be proferred for different problems. Whatever problems that arise, there are available so many solutions. There are among the solutions some that are cost effective, while some are not. Some solutions are characterized with time wasting, while there are some that are time saving. As an educational planner, you are saddled with the responsibility of identifying the different available alternative solutions to the problem at hand, so that the array of solutions can be examined, and there by adopt the solution that is cost effective and time saving also.

3.1.4 Selection of Best Alternatives:

Remember that the last point examined was identification of alternatives. Out of the differently available alternatives, the next stage in planning educational programmes is the selection of best alternative that will help in finding solution(s) to the identified problem(s). In the process of selecting the best alternative, there should be the consideration of questions such as: (i) will such best alternative be cost effective? (ii) will such alternative waste time or not? (iii) will there be availability of human, material, monetary, e.t.c. resources to implement or carry out the best alternatives? It is therefore imperative for managers

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above mentioned items while selecting the best alternative to problems identified.

3.1.5 Implementation Stage:

After the selection of the best alternative, the next stage is implementation stage. At this stage, it is the point at which the best chosen alternative is implemented.   Here, all the arms of the school such as teaching, non-teaching and even support staff are involved. This is a stage at which what is on paper is converted to reality to ensure that objectives stated are realized. At this juncture, all hands must be on deck to ensure that every bits of contribution of the implementers are cropped together by a coordinator otherwise called a principal or the headmaster.

3.1.6 Evaluation/Review:

This is the last stage in the planning of educational programme(s). After God had created the world, HE evaluated what was created and adjudged them GOOD.   It is also important to evaluate the stages involved in planning of educational programme, to find out whether they were good or not. Furthermore, evaluation is important so as to discover the areas of lack that requires attention and correction. Once evaluation is carried out, these areas of lack and insufficiency will be addressed and it ensures that the programme is on track. Evaluation will further help at ensuring that the set objectives are realized. While evaluating, the process of review of each of the earlier-on-considered stages of planning educational programme is re-checked so as to ensure that they fall in line with the expected targets and objectives.

S.A.E.: Why do you think that evaluation/review is important as one of the stages in the planning of educational programmes?

Educational programmes are sensitive because of their importance to human development. In that wise, it is not an aberration to note that there are different stages involved in the planning of educational programmes which will be of benefit to mankind in all ramifications.

5.0   Summary

In summary, this unit had examined the six stages involved in the planning of educational programmes.

6.0   Tutor-Marked Assignment:

Explain in details the different stages involved in the planning of educational programmes.

7.0   References/Further Readings

Adepoju, T.L. (1998). Fundamentals of School Administration, Planning and Supervision in Nigeria. Ibadan: Alafas Nigeria Company.

AND BARRIERS TO EDUCATIONAL

UNIT 1:   APPROACHES TO EDUCATIONAL PLANNING I

CONTENTS

1.0   Introduction

There are different approaches involved in educational planning, and they are applicable to either the developing or developed countries. Whatever approach(es) that is(are) examined, there are lessons to be learnt from each of them. This unit will therefore examine the Social Demand Approach and the Manpower Requirements Approach to educational planning.

2.0   Objectives

At the end of this unit, you should be able to: (i) Explain the Social Demand Approach to educational planning (ii) State the assumptions of the approach (iii) Explain the limitations of the approach (iv) Explain the Manpower Requirements Approach to Educational Planning (v) State the methods of Manpower Requirements Approach.

3.0   Main Content

3.1   Social Demand Approach

The Social Demand Approach is one of the approaches to educational planning. It believes that education services should be provided for the society, and should be made available to all the citizens that desire to be educated. Longe (2003) said that the Social Demand Approach has become acceptable. This is because the   government decides that education should be provided to all those that have the intention of attending schools, and especially for those that will likely

Furthermore, the Dutch educational system provided that in case there is sufficiently qualified citizen that stands at the door of any type of school, he/she must be admitted. Further, it is the responsibility/duty of the appropriate or concerned government authorities to anticipate his/her requests. This anticipation will make school capacity to be adequately prepared to accommodate such student(s). On the whole, the government must admit the provision of education for all her citizens.

The Social Demand Approach (SDA) views education as consumption and it is mostly employed in an environment where there is free and compulsory education as a tool for egalitarianism and permissiveness. The SDA is also adopted in environment where those at the helms of affairs respect the public and infact, realize that there should be satisfaction of public demand as a pointer to social and political progress. This approach is further embraced in environment where there is strong recognition and attachment to both the traditional and cultural values. This is so, because education is provided for all and sundry. It could therefore be said that individuals and parties seeking for political offices adopt the Social Demand Approach as one of their manifestoes targeted at providing education for all. Fabunmi (2005) said that in Nigeria, the social demand approach was adopted for the planning of the Universal Primary Education (UPE) of the states that were controlled by the then Unity Party of Nigeria(UPN), under the leadership of Late (Chief) Obafemi Awolowo. It is possible that some of you were beneficiaries of this free education programme while you were in the primary and secondary schools.

3.1.1 Assumptions of the Social Demand Approach:

There are some assumptions that guide the social demand approach of educational planning and these are as given by Adepoju (1998):

(a) Education is consumption rather than an investment.

(b) Education is a fundamental right of the people rather than privilege and therefore should be provided by the government.

(c) Continually, there will be demand for education which will be greater than the supply.

(d) Children of school age will demand for education specifically designed and meant for their age.

3.1.2 Limitations of the Social Demand Approach:

Adepoju (1998) listed the following as the limitations of the social demand approach to educational planning. These are:

(a) The social demand approach to educational planning is greatly politically motivated. Therefore, it is highly based on political consideration.

(b) Another limitation of the approach is that it leads to educational wastages in terms of repetition, withdrawal and poor quality of output of the school system.

(c) The approach cares for so many school intakes, which makes it very expensive in terms of salaries payment of the human

and non-teaching) that constitute about 30% of the available scarce monetary resources.

 (d) There is political undertone or influence in the process of location of schools, and so, schools can be irrationally located.

 (e) There is no consideration of the huge financial involvement of this approach while been adopted by the government.

S.A.E.: I want you to reflect on educational provision in Nigeria and its relation to the Social Demand Approach of Educational Planning.

3.2 Manpower Requirements Approach

The manpower requirements approach can also be called manpower forecasting approach. It is an approach that is based on forecasting the manpower needs of a given economy such that the various skills areas required by the labour market are forecast so as to produce a certain level of development for a given period. Experts such as Nwankwo (1981), Akangbou (1987) and Longe (2003) agreed that this approach has great relevance to developing countries because of the continuous shortage of the right kind and number of qualified educated workers. The Manpower Requirements Approach (MRA) is commonly used in newly independent nations in which there are vacancies that should be filled. Nwankwo (1981) therefore made it known that the manpower forecasting approach has been used in forecasting the manpower requirements for countries such as Nigeria and Ghana.

With respect to Nigeria, the colonial masters inaugurated the Ashby Commission of 1960 that was saddled with the responsibility of using manpower demand approach to work out the estimate for expansion of higher education for the period 1960-1980. The Late Professor Harbison made the projections as at 1960, and was known as the Harbison's Rule

t was based on the assumption that: if the national economy was to achieve 4% rate of economic growth, the senior and intermediate manpower must grow at both 8 and 13 percent respectively. Manpower planners were saddled with the responsibility of estimating the quantity of manpower needed by a given economy if given the growth target of the Gross Domestic Product. In case, a given GDP growth rate is to be attained, the needed manpower (senior and intermediate) must be supplied by the respective educational institutions. You have to note that the variation between the labour demand and supply is the ultimate aim of manpower planners so as to determine whether supply of labour is less or higher than the demand for labour. In cases where there were some imbalances, the expectation is that the educational system and its educated manpower supplying bodies must be adjusted in terms of getting such educational system expanded or otherwise as the case may be.

3.2.1 Methods of Manpower Requirements Approach:

The following are the methods of manpower requirements approach:

(a)   Employers' Opinion Method.
(b)   Harbison's Rule of Thumb Method.
(c)   Incremental Labour Output Ratio Method.
(d)   Density Ratio Method.
(e)   International Comparison Method.
(f)   Parnes – Mediterranean Regional Project Method.

3.2.2 Assumptions of the Manpower Requirements Approach:

lationship between increase in skilled manpower and productivity.

(b)   Future changes in the distribution of educational personnel are associated with positive growth and changes within the economy.

(c)   Potentials, skills, competencies and abilities of the people can be transformed through education.

4.0 Conclusion

Conclusively, the Social Demand Approach has some political undertone and mostly used when political parties are campaigning for elections. Manpower Requirements Approach is useful for nations that look forward to attaining their independence and will likely experience manpower shortages upon the attainment of independence.

5.0   Summary

This unit examined the Social Demand Approach and Manpower Requirements Approach to educational planning.

6.0   Tutor-Marked Assignment

(i)   Explain the assumptions behind the operation of the Social Demand Approach to educational planning.

(ii)   Explain the methods of Manpower Requirements Approach to educational planning.

7.0   References/Further Readings

Adepoju, T.L. (1998). Fundamentals of School Administration, Planning and Supervision in Nigeria. Ibadan: Alafas Nigeria Company.

Akangbou, S.D. (1987). The Economics of Education: An Introduction. Ibadan: Shaneson Limited.

Fabunmi, M. (2005). Perspectives in Educational Planning. Ibadan: Awemark Industrial Printers.

tion to Educational Planning". In Babalola, in Educational Planning, Department of Educational Management, University of Ibadan, Ibadan.

Nwankwo, J.I. (1981). Educational Planning. Theory and Methods. Karachi: Izharsons Printers.

1.0 Introduction

The process of educational planning involves many approaches, and unit 6 will continue with the other 2 approaches. Remember that in unit 5, we examined the Social Demand Approach and the Manpower Requirements Approach. In this unit, we will examine the Rate of Return Approach and the Eclectic Approach.

2.0 Objectives

At the end of this unit, you should be able to: (i) Explain the rate of return approach (ii) Eclectic approach to educational planning (iii) Explain the difference(s) between the rate of return and eclectic approaches (iv) Explain the steps to be followed while using the rate of return approach to educational planning.

3.0 Main Content

3.1 Rate of Return Approach

The rate of return approach is otherwise called the Cost – Benefit Analysis or the Investment Efficiency Approach. The approach views education as an investment good. So, individuals within the society is equipped with skills, knowledge, tendencies by the educating agents while in return, there will be increased national output for such society, which is believed would have invested scarce resources in her citizens. It is believed that investment in education should be undertaken by a given society if it equals next best alternatives, and the society as well as individuals is encouraged to invest in the differently available educational programmes that would greatly increase the rate of economic growth of such society. Longe (2003) thus said the educational investment has to be weighed against or compared with other

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ch as roads, health, communications, and industry and so on. Remember that as a student, you undertake different activities such as reading, cooking, travelling, and preparation for office and so on, and there are different steps that you take or follow while carrying out these activities. While utilizing the rate of return approach to educational planning, there are different steps that must be followed, and these steps were highlighted by Longe (2003) as follows:

(a)   determination of the costs of various educational programmes;

(b)   estimation of the expected benefits from the various educational programmes;

(c)   comparism of costs and benefits in order to obtain rate of return that is expected from the educational programmes;

(d)   comparism of rates in "c" above with alternative rates from other investments such as roads, health, communications, e.t.c. so as to determine whether the magnitude of resources allocated can be shared between the various educational programmes.

Adepoju (1998) then pointed out that the rate of return approach is a technique that is normally used in evaluating public investment programmes and it ordinarily points out the direction in which education can be steered by investing more in it or less on it, if the returns are not worthwhile.

3.2   The Eclectic Approach

The eclectic approach can otherwise be called the Synthetic Approach. Fabunmi (2005) said the approach involves making use of the three approaches (social demand approach, manpower requirements approach, and rate of return approach) simultaneously for the different levels of education. In the eclectic approach, the primary education level is planned using the social demand approach; secondary education is

requirements approach, while the tertiary education is planned using the rate of return approach.

S.A.E.: What is the difference between the rate of return approach and the eclectic approach to educational planning?

4.0 Conclusion

The remaining approaches (rate of return and eclectic) have been examined and the rate of return approach viewed education as an investment in which there should be returns upon such investment. Eclectic approach however synthesized the earlier three approaches and justified which of the approaches is useful for which level of education.

5.0 Summary

In summary, this unit had examined the rate of return approach to educational planning and the eclectic approach to educational planning. This unit however, completes the approaches to educational planning.

6.0 Tutor-Marked Assignment

(i)   Explain comprehensively the rate of return approach to educational planning.

(ii)   Explain the eclectic approach to educational planning.

(iii) Explain the steps involved while using the rate of return approach to educational planning.

(iv)   What are the differences between the rate of return approach and eclectic approach.

7.0 References/Further Readings

Adepoju, T.L. (1998). Fundamentals of School Administration, Planning and Supervision in Nigeria. Ibadan: Alafas Nigeria Company.

Fabunmi, M. (2005). Perspectives in Educational Planning.   Ibadan: Awemark Industrial Printers.

tion to Educational Planning". In Babalola,
in Educational Planning, Department of
Educational Management, University of Ibadan, Ibadan.

1.0 Introduction

The process of educational planning is not free from one hindrance or the other, just as we human beings are not free from one problem or the other while we are still living. This unit therefore examines the different barriers to effective educational planning, such that one can take them into consideration while carrying out the work of planning for education.

2.0 Objectives

At the end of this unit, you should be able to: (i) itemize the different barriers to effective educational planning (ii) discuss each of these barriers into details (iii) proffer necessary solutions to these barriers to effective educational planning.

3.0 Main Content

3.1 Administrative Bottleneck

This can otherwise be called bureaucracy or red tapism. It is a process of delaying and ensuring that protocols are followed in the process of educational plans formulation and implementation. Administrative bottlenecks involve stage-by-stage processing of educational plans, which will take several weeks, months, and even years, before such educational plan is finally approved. The bottleneck is usually found with the government machinery as found in ministries in which jobs pass from one stage to another, and from one officer to another. In the process of such plan moving from one stage or officer to another, such officer might be transferred to another ministry. The new personnel that takes over such office where the educational plan requires attention will need some time to study the document before taking the

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some of the reasons why there will be bureaucracy in the process of effective educational planning.

3.1.1 Economic Problem:

This problem stems from scarcity of monetary resources. If for instance a country's economy is dependent on a single product for its foreign exchange, or it is dependent on its importation and exportation means alone, monetary resources that will accrue to such country will be minimal, despite the fact that there will be so many sectors that will be competing for the few monetary resources that is realizable by such country. If however, there is variety of sources of foreign exchange earning by a nation, such country stands the chance of realizing huge sums of money which will enable her implement the proposed educational plans to its successful completion.

3.1.2 Non-Commitment to Set Objectives:

It is one thing to set objectives, it is another to work towards realization of the objectives. The masses, experts and government might be such that will not be committed to realization of set objectives. This however might be as a result of non-awareness of what educational plans are targeted at realizing, lack of focus on educational matters and even laissez faire attitude on the part of stakeholders in the education sector. Non-commitment to realization of a nation's set educational objectives by stakeholders such as masses, experts, government and so on, serves as barrier to effective educational planning.

3.1.3 Lack of Adequate and Efficient Information:

Lack of information on the part of experts constitute big problem to effective educational planning. Fabunmi (2005) on his part noted that in Nigeria, most planning officers still use the manual information system to plan a system that is fast becoming outdated in the modern world,

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to effective educational planning, once information is still manually retrieved. But in the days of computerized management information system, information retrieval is efficient and adequate. Therefore, to overcome this barrier, countries and organisations that still operate a manual means of retrieving information must change over to the computerized means of management of information.

3.1.4 Lack of Knowledge about the Goals of the Units within the Education Sector:

The education sector is made up of different units which are primary, secondary, tertiary, special, technical and vocational and lots more. Each of these units has its set goals and targets which are clearly defined and well laid out in document such as the National Policy on Education e.t.c. In situations where those that are implementers of educational plan do not have proper knowledge of the goals of these units within the education sector, then, there is an impending problem which serves as a barrier to effective educational planning.

3.1.5 Instability in Policy:

There is instability in policy as a result of lack of continuity of plans. You need to remember that once there is instability in polity, as a result of frequent changes in government, there will continually be instability in policy which invariably serves as a barrier to effective educational planning. Fabunmi (2005) however reiterated that political instability is a common feature of the third world nations. It to a great extent does not augur well for educational planning of countries of the third world, and so it retards progression, achievement and success in all ramifications.

...arriers to effective educational planning you were taught.

3.1.6 Inadequate Training:

Another major problem serving as barrier to effective educational planning is inadequate training for both the planners and the decision makers. The inadequacy of training stems from the non-availability of the training school in which both the planners and decision makers can get enrolled and benefit from such school. Even, in cases where the training can be held outside the country, there might not be enough monetary resources allocated for such training. Government needs to embrace training of her personnel as she (government) stands the chance of benefiting maximally from the beneficiaries of such training on planning of educational programmes.

3.1.7 Wide Gap between Planners and the Implementers:

Another noticeable problem of effective educational planning is the gap between planners and the implementers. So far the gap is still wide between the planners and the implementers, it will continue to serve as a barrier to successful educational planning. But in cases where such gap has been closed, and both the planners and implementers work hand-in-hand, progress, improvement, success will continually be experienced. There will be positive progress report and mountains of problems and difficulties will be surmounted. On the whole, there is the need to ensure that the wide gap between the planners and implementers is closed so as to prevent further barrier to educational planning.

3.1.8 Lack of Prior Feasibility Studies:

Prior feasibility studies are not conducted by most government, before embarking on effective educational planning. The non conduct of prior feasibility studies is a pointer to failure of whatever educational

might put forth. If feasibility studies is conducted or carried out, before the real educational plan is written, areas of flaws, deficiencies and inadequacies will be noted, so that these can be corrected.

3.1.9 Poor Monitoring and Evaluation System:

The absence of monitoring and evaluation system is also one of the clogs in the wheel of progress of educational planning. This is the last medium through which there can be a resolution of crisis, correction of bad activities and ensuring that all educational planning activities are on course as expected.

4.0 Conclusion

There are different hinderances to effective educational planning, just as each and every one of us face one hindrance or the other. But as much as there are hindrances, there should be thought out solutions to them, so that there can be progress.

5.0 Summary

Unit seven examined the barriers to effective educational planning and nine of such barriers were examined in this unit.

6.0 Tutor-Marked Assignment

(i)   List out all the barriers to effective educational planning.

(ii) Explain comprehensively all the barriers to effective educational planning.

(iii) What are your proffered solutions to these barriers to educational planning?

7.0 References/Further Readings

Fabunmi, M. (2005). Perspectives in Educational Planning. Ibadan: Awemark Industrial Printers.

RPOSES, PRINCIPLES AND GUIDELINES
ING

CONTENTS

1.0 Introduction

It is important that individuals must set targets he/she wants to achieve either in a day, a month and so on. If targets are set, there is every tendency that each and everyone will work towards its realization. So, in this unit, we will examine the definition, purposes, principles and guidelines of setting targets.

2.0 Objectives

At the end of this unit, you should be able to: (i) define what a target is (ii) explain the purposes of target setting (iii) explain the principles guiding setting of targets (iv) explain the guidelines for target setting.

3.0 Main Content

3.1 Definition of a Target Setting

Target setting is a desired level of performance expected to be attained by an organization, institution, and even an individual at a specified time.   Therefore, targets setting are commitment to improvement.   Targets are however very relevant to measuring performance.

3.1.1 Purpose of Setting Targets

Targets are used to assess and report achievement level in relation to the stated desired level of performance. Furthermore, the purpose of targets include to indicate the extent of improvement a given organisation is striving to achieve and realise at a point in time which can be a month, a quarter, half a year or even a year. Targets further provide focus of efforts to achieve improvement in allocation of resources,

...pment and its implementation. Not only that, target can also be infrastructural development and maintenance.

3.2 Principles of Targets Setting

The following are the principles guiding setting of targets:

(i) **Valuable Part of Planning:** Targets are valuable part of educational planning because planning is the setting of goals and ensuring its achievement taking into consideration the availability of scarce resources. So far resources are scarce, there cannot be room for wastages and so targets of what to be achieved must be set.

(ii) **Targets must be Meaningful, Achievable and Challenging:** Targets must be set such that it forms a critical step in the plan formulation. To this extent, it is wise that targets to be achieved must be meaningful, it must be capable of being achieved and in fact must also be challenging. For example, if someone or a country sets its target such as improving the retention rate of girl-child at the primary level by year 2015. This statement is a broad statement and its not capable of being realised if care is not taken. But there is need to set target in such a way that the performance indicators will be taken into consideration. Put in another way, the above target can be to "increase the school enrolment and survival rate of girl-child in primary 4 by 10 percent over the base year survival rate by 2015". It could be seen that the later set target is meaningful, it is achievable and infact, it is challenging. Variables such as the targetted 10 percent and year 2015 are well stated out clearly. The exact class of interest is also noted and can be worked towards.

eficial to Students: Any target that is set must be of benefit to students because they are at the receiving end of any policy targets or statements that are set. So far the students are the future manpower of the country, they are expected to be the one that will build up the resources of the country in the near future. The students must benefit from such targets in all ramifications, whether educational, economic, psychological, philosophical, sociological and so on.

(iv) **Targets should be Interactive:** There is need for targets to be interactive. This will ensure that all those concerned to benefit from the set target have their inputs which will make a difference and take different variables into consideration. Such consideration can be qualitative and quantitative.

(v) **Parents must be Informed about Targets:** Parents must be informed about the different targets that are set. This is to ensure that parents are abreast of the information that will be of benefit to their children. They (parents) however can also contribute meaningfully to such targets and even share out of their wealth of experiences with the school authorities. These experiences will however be of benefit to the children, school, parents, and the society at large. Towards this end, it is not an overstatement to note that parents must be informed about set school targets, so that they can play their expected complimentary roles to the school and society at large.

3.3 Guidelines for Setting Targets:

There are different guidelines for the setting of targets and this includes:

riety of Information:

There is need to ensure that past performance is taken into consideration while setting educational targets. Information to be considered include: school characteristics, students characteristic features, available human and material resources, available infrastructures, weather and so on. Information consideration is very important so that available information will serve as guide on whatever steps to be taken. Financial information will equip the planners with how much finance is available to the organisation to plan and set targets of her activities. The available finances will also serve as checks within which organizational activities are carried out.

(ii) **Consistency in Data Collection Methods:** Data collection is an important variable of consideration while setting targets. It is based on the available data that any target can be quantitatively set. However, without data, realistic target cannot be set. While gathering data, there is need to ensure that the mode of collecting such data is to a great extent reliable and consistent with the set target. Invariably, reliability and validity of data must be taken into consideration as much as targets are being set.

(iii) **Stakeholders Involvement While Setting Target:** This is another guideline to be followed while setting targets. In the education setting, there are different stakeholders such as students, parents, students unions, organizations, entrepreneurs, bankers, employers of labour, government and so on that are utilising the finished products of education at different levels and so on and so forth. These stakeholders have

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and experiences that are relative to them, which they will require that students passing through educational institutions must have acquired while in school. So, the schools and other stakeholders must be involved greatly in the process of setting targets.

(iv) **Prioritization of Pressing Area:** There are different areas that needs set targets in the educational system. But, some areas are more pressing than the other, or that some areas need more attention than others. What must be done is to prioritize these pressing areas because of the availability of financial, material, time, human resources, that will be capable of meeting these needs at the same time. But it should be noted that resources are scarce and so, cannot at a single time meet the need of all the targets. That is why there is need for prioritization which is the arrangement in the order of importance of these targets.

(v) **Graphical Representation of Past Trends:** In order to be able to set realistic targets, there is need to use graphs to represent the past trends which can be within three to five or ten years. The graph will show at a given instance what the situation of the organisation, the student, finance, infrastructure, etc. is, so that necessary targets can be realistically set. This therefore will prevent the rule of thumb operation. Visual displays such as bar charts, pie charts, histographs all aid colour to the illustration of results and setting of targets. Furthermore, trend line graphs that is based on a minimum of five years of historical data or rolling three years average would be taken into consideration. The different graphs will make available setting

years based on the available realistic graphs.

S.A.E.: Mention some of the guidelines for setting targets.

4.0 Conclusion

In conclusion, this unit had informed you about what target setting is, the purposes of target setting and other basics about target setting.

5.0 Summary

Summarily, the unit had looked into the definition of target setting, purposes of target setting, principles guiding target setting, and the guidelines of target setting.

6.0 Tutor-Marked Assignment

(i)   Define what target setting is.

(ii)   What are the purposes of target setting?

(iii)   Explain the principles guiding target setting.

(iv)   Explain the guidelines of target setting.

7.0 References/Further Readings

Guide to Education Planning and Results Reporting. http://education.alberta.ca/media/442976/Setting Targets for Education Performance Measures.pdf.

EDUCATIONAL PLANNING

EVALUATION OF EDUCATIONAL PLANNING TARGETS

CONTENTS

1.0 Introduction

This module will extensively look at evaluation of educational planning targets. Evaluation you will agree is very important in whatever activity we engage in. This will help us to assess whether we are on track or not. However, this module starts with the definition of what evaluation is, and other units dealt with other useful topics related to evaluation of educational planning targets.

2.0 Objectives

At the end of this unit, you should be able to: (i) define evaluation (ii) state the functions of evaluation in educational planning targets (iii) explain the school elements to be evaluated.

3.0 Main Content

Evaluation of Educational Planning Targets

3.1 Definition of Evaluation

The term evaluation originates from God. This was when HE looked at all things that HE created and declared they were "GOOD". Evaluation is therefore a process by which somebody, an organisation or an institution or a department wants to find out what is happening to their steps, processes, programmes so as to find out and discover areas of deficiencies. This is done in order to proffer remedial solutions to the areas of deficiencies. There is therefore the continuing effort to improve human service programmes, financiers, policy makers and service providers who are greatly and increasingly realizing and recognizing the importance of rigorous programme evaluation. To this extent, the process of evaluation wants to find out what the organisation's

what the programmes cost, and how they should be operated so as to achieve maximum cost-effectiveness. Evaluation wants to know which programmes work for which groups, and conclusions based on evidence, rather than testimonials and impassioned pleas (http://www.ojp.usdoj.gov /BJA/evaluation/guide/documents/evaluation_strategies-html).

3.2 Functions of Evaluation in Educational Planning Targets

Evaluation has been found to perform several functions in the different educational planning targets. Among such functions are:

(vi) **Support for Administrative Decision-Making:** Different educational planning targets involve taking of decisions about what to do, when, why, and how to do it. Once evaluation is carried out, full support is given to all administrative machineries. Furthermore, the decisions will be taken by human beings within the organisation. So, evaluation helps the administrative decision making process comprehensively.

(vii) **Improvement of the Curriculum:** Curriculum you remember is the compendium of contents that students must learn while in school, so that there can be positive change in their attitude and behaviour, e.t.c. Evaluation therefore leads to improvement of the curriculum so that contents of what students are taught are enriched from time to time. It should be remembered that so far different situations (economic, educational, environment and climate) are experienced, these differences must be built into the students' curriculum so that the students will be abreast of what is happening and therefore be equipped, up-to-date and be relevant in the system.

This is another function of evaluation. It gives room for development of the staffers. It needs be realized that for the attainment of any educational target there must be adequately developed staff. These developments can be attained through in-house training and out-of-house training. There are lots of advantages that accrue to both the staffers, students and the institutions at large. Whatever training that staff went through, students stand the chance of gaining greatly from such training.

(ix) **Enhancement of Organisational Public Relations:** For any organisation to achieve its set educational targets, there is need for public relations which targets at improving the image of such organisation. Remember that as much as the organisation ensures that its sustenance and existence is continuous, a basic requirement for such is good public relations and a good public relations officer. The officer is expected to be committed to the set planning target of the institution, so that the continual existence of the organisation is ensured.

(x) **Instructional Counseling and Diagnosis of Student and Staff Problems:** Problems are not made for trees or animals alone. As human being, we are not free from problems, whether as a staff or as a student. As a staff, there can be problem with respect to the family (I meant immediate/nuclear or extended), our husbands or wives or even at the place of work. If it is the place of work, it might be about a given concept or terminology. But as a student, our problem can stem from inability to comprehend what teachers are teaching us in the class, or we have problem with our fellow students in the class. Evaluation

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uch problems are brought to the open and dealt with, so that hindrances to realization of set educational targets are removed. Evaluation functions as student and staff problem detector, diagnoniser and also provides the instructional counselling.

S.A.E.: What are the functions of evaluation in educational planning targets?

3.3 School Elements to be Evaluated

Sanders (1978) described elements in a school that could become points of evaluation as follows; (i) general needs assessments (ii) individual needs assessments (iii) allotment of resources (iv) processes or strategies for providing services to learners. These services were found to include: design of the curriculum, classroom processes, materials of instruction, monitoring of the progress of the student, motivation of the learner, effectiveness of the teacher, learning environment, development of the teaching and non-teaching staff, making of decisions, community involvement and formation of policies of the board of the institution.

4.0 Conclusion

This unit had exposed you to some knowledge pertaining to evaluation which is however germane to educational planning targets. Evaluation is very important because it will help to find out whether the set targets are realized or not.

5.0 Summary

The unit examined the definition of evaluation, functions of evaluation and the school elements that can be evaluated.

6.0 Tutor-Marked Assignment

(v)   What is evaluation?

(vi)   Explain the functions of evaluation.

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the school elements that can be evaluated.

4.0   References/Further Readings

Sanders, J.R. (1978). School Professionals and the Evaluation Function. Journal of School Psychology, 16: Pp. 301-311.

Harrell, A.; Burt, M.; Hatry, H.; Rossman, S.; Roth, J. and Sabol, W. (n.d.). Evaluation Strategies for Human Services Programmes. A Guide for Policymakers and Providers. http://www.ojp.usdoj.gov/BJA/evaluation/guide/documents/evaluation_strategies.html. Retrieved 30th September, 2009.

ATION STRATEGIES

1.0 Introduction

In unit 9, you were exposed to the evaluation and school elements that will be evaluated. This unit will teach you the kinds of evaluation strategies that can be adopted.

2.0 Objectives

At the end of this unit, you should be able to: (i) mention the different kinds of evaluation strategies that we have (ii) explain these kinds of evaluation strategies.

3.0 Main Content

3.1 Programme Review Committee Approach for Curriculum Evaluation

This strategy can be acronym PRCA. The duty of the committee is to review thoroughly the programmes and educational targets of the institution. There should be a schedule of how such targets and programmes will undergo comprehensive and thorough review once in every 5 years. This is to ensure that up-to-date innovations and changes are built into such curriculum that students are expected to undergo while schooling. The committee for this curriculum review could be the school principal or chairman of the Parents Teacher Association. Sanders (1988) posits that the committee could be composed of a building committee which made up of the superintendent for instruction, the school principal, elementary school level chairperson or secondary school level chairperson and an instructional specialist.

There is the creation of the school level committee (e.g. primary/secondary/tertiary), or departmental level committee that is saddled with responsibility of compiling the needed information that

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s in the school curriculum which will be of benefit to the students and different stakeholders in the school system. These committees can make little changes as at when required. Sanders (1988) further noted that the committees can conduct and even keep records of the ongoing needs assessment for their different areas, while trying to look at alternative models, materials for teaching and setting objectives targeted at better approaches to instruction and also meeting the student pressing needs. Sanders (1988) additionally informed that the Programme Review Committee Approach does the following (i) review of programme proposals (ii) preparation of budget (iii) gathering of more data that is needed in the course of a one year review of a given programme area (iv) presentation of recommendations to the established school board of directors for their consideration during their meetings. While preparing for the review of the curriculum for another year, in order to incorporate necessary changes, there should be a consideration of the following: teaching and non-teaching manpower, infrastructural facilities development, subject offerings, budget allocation,e.t.c.

Problem-Solving Approach for School Improvement:

It has been mentioned that problems are not only meant for dogs, animals or humans. There are problems with our institutions also, whatever level they might be. The second evaluation strategy is the problem-solving approach targeted at school improvement. In the process of utilizing this approach, there should have been the discovery of the strengths and weaknesses of the different school units such as the libraries, laboratories, maintenance units, staff rooms, research units. The weaknesses will to a great extent brought to lime light the areas of deficiencies of the school that needed attention such that students and teacher's alike will benefit from correction of such deficiencies. In the

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e deficiency, there must be prioritization of the school weaknesses so that the most pressing weakness will come first, followed by those that are not too pressing. Based on this prioritization, different committees made up of experts from within and outside the school are set up. There is the necessity of having different experts because of the different school problems to be addressed and from their wealth of experience. The committee to work on school library will have library and archival experts, those to work on the laboratory will also be experts of good repute, while those that will work on the infrastructural facilities development should be experts in such areas, and can include building engineers, architects, surveyors, and so on.

The committees are therefore expected to put up different proposals from their discoveries of deficiencies of the school. The proposals are expected to incorporate workable solutions to the identified problems. Further, Sanders (1988) informed that there is annual stockading days during which there is inventory of the strengths and weaknesses of a given school. This is targeted at discussing what is it that remains to be done on the work that is undertaken in the past years and also evaluate the changes that were also implemented in the past years and to discuss evaluation. These will then lead to development of improvement plans for the years ahead.

3.1.1 Discrepancy Approach for Assessing School Needs and Planning

Each stakeholder whether student, teacher, government or even the community have within them their features that they expect a school to have. Just like when someone talks about school quality, each and everyone has within him or her what s/he looks forward to as making up quality of a school. Though, the presumed quality of Mr. A will be

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and also different from that of Mrs. C. Invariably, there will be discrepancies in the individual's perception of what school quality will be. Using above approach, each of the school teachers will be required to state clearly, what they think the features of their school should be, to be able to measure or meet up with the standard of the school. It should be remembered that there are some government established features in the school accreditation formats and from the different research findings of different experts, there are highlighted necessary school features. From the above 3 (teachers thought-of school characteristics, accreditation formats and researchers findings), Sanders (1988) remarked that the school head will have to organise resulting list of school characteristics by the following:

(a) School Organisation (school calendar, grade structure, time schedules, image of student that is educated, availability of school services, personnel assignments).

(b) Curriculum (effectiveness, comprehensiveness, materials, resources, ability to meet student needs).

(c) School climate (recognition of achievement, attendance, vandalism, student/teachers respect and trust, standards expectations, enthusiasm for learning, availability of support, e.t.c.).

(d) Instruction (this includes testing and grading, learning interruptions, practice, grouping, leadership, professional development of the staff and even support).

It should be realised that above listed characteristics can be viewed by both students and teachers from different perspectives. It is also possible that schools might not be working towards realisation of school set goals. The school staffs are therefore duty bound to discover the

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ciencies, so that necessary corrections can be effected. Sanders (1988) therefore recommended that a staff member can collect papers from other staff, tabulate how many times different discrepancies were listed among the above listed school characteristics and later report where there seems to be clusters. The essence is to be able to effect necessary corrections where there exist such discrepancies. The expert further affirm that if the exercise is carried out every 3 years the school will be kept dynamic, relevant and there will be continuous development in the direction of the collective vision of the school staff.

S.A.E.: What are the kinds of evaluation strategies that we have?

4.0   Conclusion

In conclusion, you have been taught the different kinds of evaluation strategies that we have. So, you can make use of any of them while you embark on evaluation exercise(s) probably on a personal note or while at your duty post.

5.0   Summary

In summary, the kinds of evaluation strategies you have been taught are: (a) Programme Review Committee Approach for Curriculum Evaluation (b) Problem-Solving Approach for School Improvement (c) Discrepancy for Assessing School Heads and Planning.

6.0   Tutor-Marked Assignment

(i)   Mention the different kinds of evaluation strategies that you know.

(ii)   Explain these kinds of evaluation strategies you have mentioned above.

7.0   References/Further Readings

Sanders, J.R. (1988).   Approaching Evaluation in Small Schools. http://www.ericdigests.org/pre-929/smal.htm.   Retrieved 17th August, 2009.

CATIONAL PROJECT PLANNING AND

CONTENTS

1.0 Introduction

You will be taught in this unit the processes to be followed in identifying steps to planning and evaluation of educational project(s).

2.0 Objectives

At the end of this unit, you should be able to: (i) mention the steps to be followed in the planning and evaluation of educational projects (ii) explain these steps as clearly as possible (iii) explain the ingredients that evaluation plan must be composed of (iv) state the steps to be followed while preparing evaluation strategy.

3.0 Main Content

3.1 Definition of the Problem

Here, some potent questions must be asked such as: what is the current situation? Who says it is a problem? What will happen if nothing is done? From these questions, a problem can be defined as a situation or condition of people or organisation that will exist in the future and that is however considered undesirable by the members of such organisation. Once it is a situation of undesirability, it requests for urgent attention, so that there can be lasting solution to the problem at hand.

3.1.1 Setting the Objective:

Objective is what to be achieved in the course of carrying out of some activities. Really, questions such as these can be asked that what do I want the situation to be in the future? How will I know when I have achieved it? So, an objective is a situation or condition of either the people or an organisation that will exist in the future and it is however considered desirable by the members of such organisation. The

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measurable statements of what someone wants to accomplish at a given point in time. Objectives are also declarative statements that should include the what, who, when, where and how much elements or variables of the above stated problem statement.

Objectives may aim at solving a problem that is external to the organisation which usually is a problem of the community or targeted population. Some other objectives may target solving some problems that are internal to the organisation and such can include staff training needs or their motivation. In some other cases, objectives may be directed at changing the skills, knowledge or even the attitudes of people such as staff, clients, consumers, or even the general public. You should note further that problems are stated in negative, undesirable terms (which is however wrong and fearful), but objectives will state a positive and desirable situation. It must be remembered that a problem can hardly be eliminated, and the size of the situation or condition is usually smaller in the objective rather than in the problem statement. Remember to limit the objective to a realistic level that is still considered desirable by the organization.

3.1.2 Choosing among Alternative Strategies:

In the process of choosing among alternative strategies, the following questions can still be asked: what are the possible ways to solve the problem? what resources would be needed to do each alternative?, which alternatives are most feasible?, who needs to be involved in choosing which way is best?. A therefore strategy is a series or group of activities which are carried out by members of a given organization targeted at reaching the stated desired objectives. In order to determine the appropriate strategy to be employed, (i) list all the possible ways of

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(ii) analyse each alternative from several aspects by including available resources, forces within the environment that may help or hinder good implementation, and evaluation criteria such as: appropriateness, adequacy, effectiveness, efficiency and potential side effects which can be positive or negative.

3.1.3 Preparation for Implementation

Here, some potent questions can still be asked as follows: What arrangements are needed to be made with other organizations and people in order to carry out the plan?, how can we get everything done as scheduled?, how will the needed resources be discovered? In order to get prepared for implementation of the project, (i) figure out what major activities will be needed and in what order should they occur? (ii) determine a schedule for completion of these noted activities (iii) calculate what resources will be needed to complete these tasks and activities (iv)assign responsibility(ies) to someone for each activity (v)Plan what specific tasks will be done, who needs to be involved, when the tasks will occur, and what specific resources will be needed and how to obtain them, if necessary.

Remember that activity is a specific procedure or process completed at a certain point in time which is carried out by personnel within the system as part of strategy for realizing the desired objective. A task is a specific process or procedure that includes what will be done, when, and by whom, that is part of a larger activity.

3.1.4 Designing the Evaluation:

While designing the evaluation, some germane questions can also be asked, and these include: how will I know when I have achieved my objective?, how well did the strategies and activities work out?, how efficient were the resources used? Outside these posed questions, it

two main types of evaluation, which are process evaluation and outcome evaluation.

Process Evaluation: The process evaluation is targeted at measuring the effectiveness of the target or organization to carry out the plan as designed or programmed. So, each of the steps taken, is evaluated.

Outcome Evaluation: This is intended to measure the degree to which the objective has been met as the result of the implementation of the selected strategies and activities. Both the process and outcome evaluations are made used of together. While a process evaluation may indicate that the plan is being well-implemented though, it will not determine if the strategies and activities implemented are effective in addressing the problem. In the same vein, outcome evaluation may indicate that the objective had been met, but without confirmation that the process was effectively implemented. So, it may not be possible to attribute the impact of the solution to the problem at hand and to the actual intervention in question.

3.1.5 Steps to Preparation of Evaluation Strategy:

There are five basic steps to be followed in the preparation of evaluation design as propounded by Craig (1978) and these are:

(i)   Anticipation of what decisions might have to be made about the plan along the way.

(ii)   Look at each part of the plan and anticipate where a comparison of actual performance against planned performance might yield information that will help make key decisions.

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appropriateness, adequacy, effectiveness, efficiency and side effects in order to compare actual and planned performance.

(iv) Figure out how to obtain the data for these measurements.

(v) Determine who will analyze the data, how and when.

S.A.E.: (i) What steps will you follow in educational project planning?

(ii) Mention the steps involved in preparation of evaluation strategy.

3.1.6 Ingredients that Evaluation Plan Must Include:

Craig (1978) further provided the following ingredients that an evaluation plan must be made up of, and these are:

(i) A review of the decisions that might need to be made during implementation.

(ii) Description of possible breakdowns between actual and planned performance.

(iii) Set of measures to be used in comparing the actual and planned performance.

(iv) List of sources from which data will be gathered.

(v) Plan for how the data will be analyzed and who will analyze such data.

(vi) Plan for how the evaluation information will be used by the organization, other users and different stakeholders.

4.0 Conclusion

We have seen the different steps to be followed while evaluating educational project(s). Furthermore, the different ingredients that evaluation plan must be made up of have been made known to you, such that it will be made used of while undertaking evaluative exercises.

Summarily, this unit had exposed you to the: (i) steps to follow in the planning and evaluation of educational projects (ii) steps to follow in preparation of evaluation design (iii) ingredients that evaluation plan must include.

6.0 Tutor-Marked Assignment

(i)   Explain the steps to be followed in the process of planning and evaluating educational projects.

(ii) Explain the steps that should be followed in the preparation of evaluation strategy.

(iii) What are the ingredients that evaluation plan must include?

7.0 References/Further Readings

Project Planning and Evaluation in Five Easy Steps. http://march of dimes.com/files/HI_Project_Planning_and_Evaluation_in_5 _Easy_Steps.pdf. Retrieved 16/10/2009.

ATION

1.0 Introduction

We are going to look at the different types of evaluation that can be embarked upon. You should note that these are the types of evaluation that different stakeholders in the education, industrial, sports, economic, transportation, health, e.t.c. sectors can embark upon. This will help them to really ascertain how their respective programmes will impact on the recipients.

2.0 Objectives

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

(i)   itemise the different types of evaluation that can be   embarked upon

(ii)   explain these types of evaluation

(iii)   explain the determinants of the readiness for evaluation.

3.0 Main Content

3.1 Impact Evaluation

This is the type of evaluation that assesses the effect of one thing or a programme or a thought of solution on the recipients, or students or different stakeholders in the education sector. This type of evaluation focuses on questions of causality.   Questions such as: did the programme have its intended effects on the intended recipients? Harrell, Burt, Hatry, Rossman and Roth (n.d.) further pose these questions that if the programme had its intended effects, who was helped and what activities or characteristics of the programme created the impact? Further, did the programme have any positive or negative unintended consequences? These questions are germane because of an expectation that the designed programme or discovered drug when utilized on the

o improvement in their bad situation. For example there are different drugs that have been produced by drug experts targeted at reducing the incidence of Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS). Medicine experts will carry out impact evaluation of whether the drugs when administered on the HIV/AIDS patients there was improvement in their health status.

Furthermore, in the teaching and learning system, researchers have worked on different ways by which teachers can teach and teach well such that students will learn well. The newly discovered teaching strategies will be tested on students and with the expectation that there will be improved teaching/learning situation. Such improvement implies that the newly discovered strategy (ies) had positively impacted on the students.

3.1.1 Performance Monitoring:

This is another type of evaluation that provides information on the key aspects of how a system or a given programme is operating. Further, it examines and even determines the extent to which specified programme set objectives are being attained. Such objectives can be: (i) attainment of 60% girl-child primary school enrolment by year 2012 in BOYOHA State (ii) production of 10,250 teachers by colleges of education in a given country (iii) reduction in secondary school dropouts from about 10 percent to 5 percent. Harrell, Burt, Hatry, Rossman and Roth (n.d.) said that results of this evaluation are used by service providers, funders and policymakers to assess the performance of the programme and its accomplishments. For example in Nigeria, the government introduced the National Programme on Eradication of Poverty (NAPEP) targeted at total eradication of poverty in the country. To this extent,

...ated to the educated unemployed. The ...pectation therefore was that the NAPEP will to a great extent reduce the rate of poverty in Nigeria. If there is an assessment of what the poverty level is when the NAPEP was introduced and compared with the rate before the government's introduction of NAPEP, though it is found that there was a reduction in poverty level in the land, programme has performed creditably well at reducing poverty in Nigeria.

3.1.2 Process Evaluation:

Harrell et al informed that this type of evaluation questions about how a programme operates, it also documents the procedures and the different activities that are undertaken in the process of service delivery. One big advantage of the process evaluation answer type as given by the experts is that they are useful to both service providers and the practitioners in the process of repeating/replicating or even adaptation of the programme strategies.

3.1.3 Cost Evaluation:

This evaluation type has to do with determination of how much a programme costs or the determination of the costs of the components of the programme. This is in relation to available alternative uses of scarce resources for the same programme, though taking into consideration the benefits to be reaped from the programme. Harrell et al believed that in the current fiscal environment and disposition, programmes must defend their costs against alternative uses.

S.A.E.: Mention the types of evaluation you have been taught.

3.1.4 Determinants of Readiness for Evaluation:

Evaluability assessment according to Harrell, Burt, Hatry, Rossman, Roth and Sabol (n.d.) is a systematic procedure for deciding whether programme evaluation is justified, feasible and even likely to

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There are important determinants of readiness for evaluation and these are as discussed below:

i.   **Availability of Data:** Data is very important in the course of evaluation. So there is need to determine the kinds of data that will be needed while getting ready to evaluate. There should be the determination of whom and who will provide the need data. Experts therefore agreed that evaluations should be designed to maximise the use of available data, so far they are valid indicators of important concepts and are found reliable. However, the data that are needed for evaluation can be in the form of government statistics that are generated by government establishment such as the National Bureau of Statistics (NBS) and even the Federal Office of Statistics (FOS) as we have in Nigeria. There can also be both records and statistics of government agency(ies). Furthermore, data can be retrieved from works of government researchers or individually set up research organizations targeted at carrying out researches into specified areas of human endeavour. You must remember that there will likely be limitations or problems that will be encountered in the process of data collection. So, in such cases, all efforts must be made to find solution to the ensuing problem of inability to collect data.

ii. **Availability of Requisite Resources:** Resources the adage says is scarce. Remember that there are innumerable resources needed for successful evaluation exercise. In that wise, efforts must be made to ensure that resources such as time, money, expertise, government, and so on are readily available for the evaluation exercise. In situations, where there are some disturbances, efforts must be made to find solutions to such constraints.

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uation: In order to make the evaluation relevant and useful, there is need to ensure that the evaluation takes place at a given relevant time frame, when such exercise will be useful, relevant and timely. This will make the findings and outcomes of such evaluation exercise to be highly useful.

iv. **Availability of Related Evaluation Information:** There is an adage that says experience is the best teacher. This is such that there might have been existing an evaluation information somewhere probably on the same or a closely related intervention exercise. Harrell et al informed that if there are any successful previous attempts of evaluation exercise, it may yield promising models for replication. Furthermore, the experts said that lessons that were learnt from previous unsuccessful attempts may even inform the current effort.

v. **Generalizability of Findings:** Findings that are not generalizable will be of limited value. Infact, if you look at some laws such as that of demand and supply, they are applicable to different situations at different times. It is therefore imperative that findings of different programmes be generalizable to other communities. This however makes such programmes to be useful in various settings.

S.A.E.: List the determinants of readiness for evaluation.

4.0 Conclusion

You will discover that there are different types of evaluation that can be carried out and there are different determinants of readiness for evaluation exercise.

you reliably that there are different types of evaluation. The different determinant factors for readiness for evaluation were also made known to you.

6.0   Tutor-Marked Assignment

(i)   Explain the different types of evaluation that we have.

(ii)   What are the determinant factors for readiness for evaluation?

7.0   References/Further Readings

Harrell, A.; Burt, M.; Hatry, H.; Rossman, S.; Roth, J. and Sabol, W. (n.d.) Evaluation Strategies for Human Services. Programmes: A Guide for Policymakers and Providers. http://www.ojp.usdoj.gov/BJA/evaluation/guide/documents/eval uation_strategies.html. Retrieved 30th September, 2009.

ACHIEVEMENT TARGETS

1.0 Introduction

In this unit, we will deal with what a model is, what a projection is and with the benefits of mathematical models for projections and educational planning.

2.0 Objectives

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

(i)   define a model

(ii)   give the definition of projection and

(iii)   explain the benefits of mathematical models for projections and educational planning.

3.0 Main Content

3.1 Definition of a Model

A Model is an equation that comprises of a list of variables that are endogeneous and those that are exogenous. However, a model according to Ayodele (2005) is a set of structures containing a set of equations that involve autonomous relationships which are sufficient for determining the numerical values of the endogenous variables from the values that are given of the exogenous variables. Model is a set of relationship that involves at least one variable that is involved in at least one another relationship that forms part of the model.

Various models are constructed by economists, statisticians, educational planners and even policy makers targeted at studying and creating an understanding of the economic and educational situation. It further makes forecasts that are rational about educational and economic realities based on a given set of assumptions that are built into the models.

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noted that an economic model for instance is made up of a set of economic relationships that are generally expressed through a set of mathematical equations. There are some variables in the model that express the relationships that exist among the different variables of the economy. Each of such equations has in it one or more variables that also appear in one or more relationships that consist of a model. For instance, a look at the structure of a micro market equilibrium model consists of the following: demand equation, a supply equation and even the equilibrium condition that the total quantity demanded will finally be equal to the total quantity that is supplied. Algebraically, a linear equilibrium microeconomic model can be expressed as shown below:

$$Q_{dd} = a_0 - b_0P \quad \text{...... (1)}$$

$$Q_{ss} = a_1 + b_1P \quad \text{...... (2)}$$

$$Q_{dd} = Q_{ss} \quad \text{............ (3)}$$

Note that Q_{dd}, Q_{ss} and P represents total quantity demanded, total quantity supplied and the price respectively, while the constants are denoted by a_0, a_1, b_0, b_1 . In order to determine both the equilibrium point and equilibrium price at which quantity demanded by buyers will equate the quantity supplied by producers, equation 3 will therefore be solved, as shown below:

If $Q_{dd} = Q_{ss}$, then substitute the values in equations 1 and 2 above as follows:

$$a_0 - b_0P = a_1 + b_1P$$

$$a_0 - a_1 = b_0P + b_1P$$

$$a_0 - a_1 = P(b_0 + b_1)$$

$b_0 - b_1$

$$P = \frac{a_0 - a_1}{b_0 - b_1}$$

Models can therefore be a forecasting or equilibrium models. It can also be a static or dynamic model though, depending on type of analytical technique that is employed. How relevant a model is, is a function of the empirical results that it gives taking into consideration the reality of the behaviour.

3.1.1 Projection:

A Projection according to Owolabi and Fabunmi (1999) is a statement that is based on assumed conditions of the parameters that characterise the parent population. Projection is therefore an elaboration of the effects in future of the presumed present condition. Projection tries to predict the outcome of spontaneous forces of what can happen if there were no deliberate manipulations of situations. Care needs to be taken because of the fact that once the conditions that are assumed for a projection changes, such projections will be wrong and the errors will also be great. With time the assumptions on which projection is based become weak with time as a result of changes in policy, plan, and so on. Time is a variable that determines the accuracy of projections. If the period of projection is short, then the projection will be reliable. If otherwise, the time is long the accuracy of projection decrease with time. In short, the projection over short period is quite reliable than that of the long-term. There can be projection of variety of things such as projections of the male and female student population, needed textbooks, classrooms and so on. Projection of achievement targets can be increase

ired number of classroom furniture such as chairs and desks, salary of academic and non-academic staff.

S.A.E.: (i) What is a model? (ii) Define projection.

3.1.2 Benefits of Mathematical Models for Projections and Educational Planning:

Mathematical models are useful for projections and planning of the educational system and targets. Educational planners however make good use of these mathematical models because they are in the business of planning for educational system whereby targets about student enrolment, infrastructural needs, salaries of workers are all worked upon. The planners further work on future details about these targets, and the future can be five or ten years or more. The future is worked on to take care of yet to be born population. Models, whether economic or educational consist of given set of relationships and they are expressed generally through a set of mathematical equations.

There are lots of advantages that are derivable of mathematical models for projection and educational planning, and these include:

(i) **Ensuring of Logical Consistency:** The logical consistency exists when there is clarity in the specification and estimation of either the relationships (or association), differences, joint relationship, prediction of some issues. These exercises involve large and complex data. The mathematical model(s) gives room for logical consistency because it has been tested over time and its shortcomings worked on.

(ii) **Facilitation of Rapid Computation of Future Implications of Education Policies:** Mathematical models give room for easy computation as a result of well stated process which has been tested overtime. In that wise, different computation can be carried

...erences, tests of association, and usage of regression analysis and also through the use of simulation analysis.

(iii) **Specification and Quantification of Key Relationships:** Mathematical models further give room for specification and quantification of key relationships, which gives room for intra-national and international comparison of variables such as human development index, educational development index. It helps in stating out clearly the enrolment of students over a specified period of time, teaching manpower figures, government budgetary allocation to education and lots more. These values helps in finding out whether a country is ahead of other countries or such nation is at par or it is behind other nations of the world.

(iv) **Assessment of Priorities in Terms of Funding, Infrastructures and Lots More:** By making use of mathematical models, one can easily discover within a glance, the areas that are of priority to government in terms of funding, provision of infrastructures and other relevant issues. Mathematical models make possible availability of data to assess areas of priority.

4.0 Conclusion

This unit had introduced you to what a model is. You have also been informed about what a projection is and the advantages of mathematical models for projections and educational planning had been made known to you in this unit.

5.0 Summary

The definition of a model was examined, while in this unit, the definition of projection had also been examined. The different benefits

models for projections and educational planning were also looked at.

7.0 Tutor-Marked Assignment

(i) What is the definition of a model?

(ii) What do you understand by projection?

(iii) Explain the advantages of utilising mathematical models for projections and educational planning.

7.0 References/Further Readings

Ayodele, J.B. (2005). Fundamental of Systems Analysis in Education. Lagos: Bolabay Publications.

Owolabi, S.O. and Fabunmi, M. (1999). Demographic Analysis in Educational Management. Ibadan: Powerhouse Press and Publishers.

Owolabi, S.O. (2006). Quantitative Methods of Educational Planning. Ijebu-Ode: Lucky Odoni (Nig.) Enterprises.

UNIT 1:   PROJECTION TECHNIQUES

CONTENTS

1.0   Introduction

In this last unit, you were taught the definition of a model, the meaning of projection and the benefits of mathematical models for projections and educational planning. In this unit, you will learn about the different techniques of projection that we have.

2.0   Objectives

At the end of this unit, you should be able to: (i) mention the different projection techniques that we have (ii) explain each of these techniques as clearly as possible (iii) calculate the value of P_n, Po, r and even n from the given formula $P_n = Po \times (1 + r)^n$.

3.0   Main Content

3.1   Projection Techniques

There are different projection techniques that can be adopted for achievement of educational targets, and these are:

(i)   Grade Ratio Model

(ii)   Growth Rate Model and

(iii)   Student Flow Model

The above three projection techniques are explained below:

3.1.1 Grade Ratio Model:

The grade ratio model is one that is made used of if data are only limited to student enrolment by grade. It projects student enrolment for one class to another in a given academic session or sessions. Ayodele

odel projects the enrolment in a given class in a given year, by using data on new school entrants to that grade and data on repeaters of that grade. Graphs are used to determine student progression and also the projection of the students' enrolment into the future. So, estimates of the future enrolments are extrapolated from the given graph by making use of the formula below:

$$E_{(i,t)} = K_{(i-1,\ t-1)} \times E_{(i-1,\ t-1)}$$

Where:

$E_{(I,t)}$ = Students' enrolment in class i in academic session t.

$K_{(i-1,\ t-1)}$ = Coefficient of transition rate from "i-1" in academic session "t-1" and i = 2, 3, 4, ... m.

M = Number of classes

$E_{(i-1,\ t-1)}$ = Students enrolment in the former academic year t-1 and in the former class i-1.

There is a shortcoming of this model, and this is that there is no essential consideration of some parameters of promotion, repetition and dropout rates.

3.1.2 Growth Rate Model:

The growth rate model is commonly used by Demographers and Social Statisticians in the process of making projections of a specified population of a given area or nation. It is not only used in the educational sector, but other sectors such as health, census and so on. Infact, in its character, the growth rate model is geometric in nature. It however has a constant term (1+r) and so the reason why it is called compounding. If it is the other way round, it is (1/1+r) and so, called discounting.

ases where there is no detailed information at hand, but rather a base data. The mathematical notation is given as follows:

$$P_n = P_o \times (1+r)^n \quad \ldots\ldots\ldots\ldots(1)$$

Where:

P_n =   Population in the target or final or n^{th} year.

P_o =   Population in the base or initial year.

r   =   Rate of change in population growth expressed in percentage.

n   =   The number of time intervals, i.e. interval between the base year and the target year.

The following can be computed from the above equation P_o, r and n.

Given that $P_n = P_o \times (1+r)^n$ find P_o.

To find P_o, divide both sides by $(1+r)^n$.

$$\frac{P_n}{(1+r)^n} = \frac{P_o \times (1+r)^n}{(1+r)^n}$$

$$\frac{P_n}{(1+r)^n} = P_o \qquad\qquad OR$$

$$P_o = \frac{P_n}{(1+r)^n} \quad \ldots\ldots\ldots\ldots(2)$$

From equation 1, find r

$$P_n = P_o \times (1+r)^n$$

Divide both sides by P_o, and so,

$$\frac{P_n}{P_o} = \frac{P_o \times (1+r)^n}{P_o}$$

$$\frac{P_n}{P_o} = (1+r)^n$$

Taking the logarithm of both sides,

$$\log \frac{P_n}{P_o} = \log (1+r)^n$$

$$\log \frac{P_n}{P_o} = n \log (1+r) \quad \text{OR}$$

$$n \log (1+r) = \frac{\log P_n}{P_o}$$

Divide both sides by n

$$\frac{n \log (1+r)}{n} = \frac{\log \frac{P_n}{P_o}}{n}$$

$$\log (1+r) = \frac{\log \frac{P_n}{P_o}}{n}$$

$$1+r = \text{Antilog} \left(\frac{\log \frac{P_n}{P_o}}{n} \right)$$

$$r = \text{Antilog} \left(\frac{\log \frac{P_n}{P_o}}{n} \right) - 1 \quad \ldots\ldots\ldots\ldots(3)$$

From equation 1, find the value of n.

$$P_n = P_o \times (1+r)^n$$

Divide both sides by P_o, and so,

$$\frac{P_n}{P_o} = \frac{P_o \times (1+r)^n}{P_o}$$

$$\frac{P_n}{P_o} = (1+r)^n$$

Taking logarithm of both sides of the above equation, it becomes;

$$\log \frac{P_n}{P_o} = \log (1+r)^n$$

$$\log \frac{P_n}{P_o} = n \log (1+r)$$

$$n \log (1+r) = \log \frac{P_n}{P_o}$$

Divide both sides by $\log (1+r)$

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$$\log (1+r)$$

$$n = \frac{\log \frac{P_n}{P_o}}{\log (1+r)}$$

$$n = \frac{\log P_n - \log P_o}{\log (1+r)} \ldots\ldots\ldots(4)$$

In summary, the values of P_o, r, and n from equation 1 are as follows:

$$P_o = \frac{P_n}{(1+r)^n}$$

$$r = \text{Antilog} \left(\frac{\log \frac{P_n}{P_o}}{n} \right) - 1$$

$$n = \frac{\log P_n - \log P_o}{\log (1+r)}$$

Example I:

Assume that in 2004, the primary school enrolment was 50,000, while the rate of increase per annum was 5% between 2004 and 2009. Calculate the enrolment in 2009.

Solution:

If $\quad P_n = P_o \times (1+r)^n$

Note that $\quad P_n = 2009$

00

$$n = 5 \text{ years}$$

Substituting above values into;

$$P_n = P_o \times (1+r)^n$$

$$P_n = P_{2009} = 50,000 \times (1+0.05)^5$$

$$= 50,000 \times (1.05)^5$$

$$= 50,000 \, (1.276)$$

$$P_n = P_{2009} = 63,800$$

Example II:

If the target population for the academic year 2008/2009 is 500,000 and the growth rate is 8% while the starting academic session was 2004/2005. What is the initial student enrolment?

Solution:

$$P_o = \frac{P_n}{(1+r)^n}$$

Note that $\quad P_o = ?$

$$P_n = 500,000$$

$$r = 8\% = 0.08$$

$$n = 4 \text{ years}$$

Substitute above values into the given formula:

$$P_o = \frac{P_n}{(1+r)^n}$$

$$P_o = \frac{500,000}{(1+0.08)^4}$$

$$= \frac{500,000}{(1.08)^4}$$

$$= \frac{500,000}{1.36}$$

$$P_o = 367,647$$

Example III:

he 2005/2006 academic session student enrolment totaled 200,105 and for the target year 2008/2009 academic year, student enrolment was 280,500. Find the rate of enrolment of the student.

$$r = \text{Antilog} \left(\frac{\log \frac{P_n}{P_o}}{n} \right) - 1$$

Note that from the question above,

$$P_o = 200,105$$

$$P_n = 280,500$$

$$n = 3 \text{ years}$$

Substitute the figures above into the given formula of r, as shown below:

$$r = \text{Antilog} \left(\frac{\log \frac{P_n}{P_o}}{n} \right) - 1$$

$$r = \text{Antilog} \left(\frac{\log \frac{280,000}{200,105}}{3} \right) - 1$$

$$r = 1.119 - 1$$

$$r = 0.119$$

$$r = 11.9$$

Approximately, r = 12%

3.1.3 Student Flow Model

The student flow model makes use of information on students such as promotion rate, repetition rate, drop-out rate. The model considers the internal dynamics and the proper functioning of the education system of a given state. Though, Owolabi and Fabunmi (1999) noted that in practice, transition rates vary in response to varying policy measures such as introduction of automatic promotion as against the

nt flow in a nation is still a function of the state of the economy, political and even social dictates of the given nation. Changes should be expected with respect to the trends at which students flow within the educational system, which might be positive or negative. It is positive if the above Owolabi and Fabunmi (1999) noted practice is introduced. If it is otherwise, the policy is negative and the promotion policies are not enacted.

There is an assumption about the model, and this is variation in the transition rates of promotion, repetition, dropout over some academic sessions. The mathematical notation of the student flow model is given as follows:

$$E^t_g = \left(P^{t-1}_{g-1}\right)\left(E^{t-1}_{g-1}\right) + \left(R^{t-1}_{g-1}\right)\left(E^{t-1}_{g-1}\right)$$

Where: $E^t_g =$ Student enrolment in class g in academic year t.

$P^{t-1}_{g-1} =$ Student promotion rate from class g-1 in academic year t-1.

$E^{t-1}_{g-1} =$ Student enrolment in class g-1 in academic year t-1.

$R^{t-1}_{g-1} =$ Student repetition rate in class g in year t-1.

S.A.E.: (i) Mention the different projection techniques that you know.

(ii) What can you say about the Growth Rate Model?

4.0   Conclusion

It is expedient that you know the types of projection techniques that we have, so that it can be made used of in any particular moment. Though, there are some calculations that will be made used of while you are really involved in making use of the stated formulaes.

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techniques have been made known to you and these are (i) grade ratio model (ii) growth rate model (iii) student flow model.

6.0 Tutor-Marked Assignment

(i) Explain the following projection techniques; (a) Grade Ratio Model (b) Growth Rate Model (c) Student Flow Model.

(ii) Assume that in year 2000 the population of the Lagosians was 100,000, while the growth rate was 3% per annum. Make a projection of the likely population figure of the Lagosians in the year 2010.

(iii) In a given Local Government Area, the secondary school enrolment in 2003 was 20,000 between 2003 and 2008 it increased at the rate of 5 percent per annum. What was it in 2008.

(iv) The population of a country in 1979 was 55,670,000. What would it be in 2009 if its growth rate was 2.5% per annum?

7.0 References/Further Readings

Owolabi, S.O. and Fabunmi, M. (1999). Demographic Analysis in Educational Management. Ibadan: Powerhouse Press and Publishers.

TEACHER DEMAND

CONTENTS

1.0 Introduction

Teachers are veritable force to be reckoned with in any nation, because they train the education manpower that work for the nation(s). As much as children are continually given birth to, there will continuously be need or demand for teachers. So, in this unit, you will discover how to project for teachers that are needed by the schools.

2.0 Objectives

At the end of this unit, you will be able to explain: (i) how teachers are projected according to number of classes (ii) how teachers are projected according to the student/teacher ratio (iii) what is meant by stock of teaching manpower (iv) what is meant by teacher retention ratio.

3.0 Main Content

Teachers are the engine that turn around a nation's educational system and are also called molders of a nation. To this extent, the Nigeria's National Policy on Education (2004) affirmed that the Nigerian educational system cannot rise above the quality of her teachers. Therefore, since there is no stagnation in the number of students getting enrolled from one academic session to another, and from one class grade to another, there is need to examine how demand for teachers are projected. Owolabi (2006) noted that there are two methods of projecting teacher demand in most of the African countries and these are:

(i) According to number of classes which is mostly applicable to primary schools.

(ii) By making use of student/teacher ratio.

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...cording to Number of Classes

Teacher projection according to number of classes as found in the primary schools is based partially on the number of streams a country or an administrative unit will have in its totality or partly on how many of such would be large enough to deserve detached head teachers. Owolabi (2006) however said the method can be employed in small administrative units where it is easy to pin point the classes that may grow large enough to be split or streams out and may be combined at future dates or period.

3.2 Teacher Projection According to the Student/Teacher Ratio

This is a method that relates one teacher to the number of student that must be in a class, taking into consideration the streams of classes available. It is either called student/teacher ratio (S.T.R.) or pupil/teacher ratio (P.T.R.). The ratio is gotten by dividing the whole student enrolment in the school by the established student norm in each of the classes. That is, in a given nation, her educational policy would have established the number of students that should be seated in a class. For instance, in the Nigerian National Policy on Education (2004) it recommended that there should be 40 students in a particular class to be taken care of by one teacher. In essence, in the primary and secondary schools in Nigeria, the pupil/teacher ratio (P.T.R.) is 40: 1. So, to project the number of teachers required by a school, it is a matter of using the established number of student in a class (40) by the total number of students available.

Owolabi (2006) mentioned affirmatively that there are on going researches to establish what should be the best or optimum pupil/teacher ratio so that teaching and learning can be effectively carried out. He added that at what specific size would quality of teaching

the number of pupils increase? Except the above is determined by different countries of the world, the norms of pupil/teacher ratio or class size would be usually based on resource availability.

For countries that are poor, it is discovered that there is high norm of pupil/teacher ratio. In Africa however, the norm that is common is the 40 pupils to 1 teacher in the primary school section, while at the second level (secondary) it is 25 students to 1 teacher. In the process of projecting demand for teachers in any given country, it is imperative to use the country's established or already existing teacher/pupil ratio norm. Owolabi (2006) therefore explained six steps that can be followed while projecting demand for teachers. The steps are as follows:

Step I: Calculate the number of teachers that are required by dividing the total number of pupils by the accepted norm for pupil/teacher ratio. Assume there are 100,000 pupils to be admitted into the primary schools, and assume further that the pupils/teacher ratio is 40: 1. It therefore follows that the number of teachers that will be needed for the 100,000 yet-to-be admitted pupils will be 100,000 ÷ 40 = 2500 teachers.

Step II: Determine by calculating the present or base year teacher surplus or shortages. It can be determined by looking at (for instance) the number of teachers required above (in Step I) to handle 100,000 students. Therefore, the government can inquire whether the number of teachers on ground is up to 2500 or not (shortage).

Step III: Estimate the number of teachers that will leave the school probably as a result of different factors such as retirement, death, transfer, resignation and so on. This will however, help in determining the rate of teacher turnover from one year to another. In some cases if based on trend study of teacher turnover may be about 10 percent have

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about 3 to 5 years, then the 10 percent of teacher turnover can be upheld and used as a guide while projecting for teacher demand.

Step IV: Project additional student enrolment for each year of the plan period, by using the growth rate model, grade ratio and the student flow model. In addition, the automatic promotion can also be used to project the student enrolment for each year.

Step V: Calculate the additional (marginal or extra) number of teachers as a result of enrolment expansion, by just simply dividing the extra student enrolment by the already existing pupil/teacher ratio norm.

Step VI: Sum up Step II, Step III and Step V to be able to find out the total number of extra teachers that are required.

3.3 Stock of Teaching Manpower

The stock of teaching manpower implies the number of male and female teachers that are available in the economy. Such teachers are of different age groups, different states and local government origin, different educational qualifications (such as N.C.E., B.Ed, B.Sc (Ed), M.Ed, Ph.D). These teachers handle different subjects and are in different areas of specialization such as the Arts, Social Sciences, Sciences and even Technical/Vocational education. The stock of the teaching manpower has the age structure as one of its features. It then implies that the stock decreases due to retirement and death of teachers or as teachers move to other non-teaching profession. It also functions positively if there is reduction of teaching stock mortality. The stock of the teaching manpower in a given nation can be attracted and retained if the following factors are taken into consideration:

i.   Availability of promotion opportunities for the teachers.

e teaching profession.

iii.   Appropriate recognition of teachers at all levels

iv.   Improvement in the conditions of service for teachers.

v.   Making the teaching profession attractive through adequate provision of incentives.

In cases where the above highlighted factors that can attract teachers to the job are not seriously taken into consideration, there will be high rate of teacher turnover. It is one of the serious problems facing the teaching profession right from the first level to the third level. You must remember that the issue of teacher turnover has constituted a national problem which Adesina (1990) and Ayeni (2003) referred to as the problem of "Brain Drain". This occurred in the forms of withdrawals from the schools through resignation, death, and transfer to another school. Other factors are: further education, withdrawal from the teaching profession or movement within the profession. There are reasons why teachers withdraw totally from the teaching profession and among such reasons are:

(i)   General dissatisfaction with the profession.

(ii)   The desire to enter another type of job largely because of the financial attractions offered.

(iii)   Marital reasons.

(iv)   Death.

(v)   Retirement.

(vi)   Failure on the job.

Adesina (1990) discovered that most people who usually change from one teaching position to another are greatly motivated by the following factors:

...unities for higher earnings, more desirable living conditions, better school facilities that contribute to instructional efficiency;

(ii) disagreement with administrative policies and personnel, inability to meet higher professional standards; and

(iii) dismissal because of inefficiency, insubordination, misconduct and a reduction in staff personnel.

With the above highlighted problems facing the teachers, experts such as Adesina (1990) and Ayeni (2003) provided the following solutions:

(a) there should be encouragement of teachers, consolation and provision of rent – free quarters.

(b) there should be less harshness and there should be considerate treatment meted out on the teachers.

(c) teachers should be made to feel that they are wanted and also that they are training the minds of the nation.

(d) there should be introduction of varying allowances and car loans for the teachers on the job.

S.A.E.: How are teachers projected according to (i) number of classes (ii) student/teacher ratio?

3.4 Teacher Retention Ratio

The teacher retention ratio is the rate at which educational planner finds out the number of teaching manpower force that will still be on the teaching job. It is symbolically represented as follows:

$$T_{(t,r)} = \frac{T_{t+1} - N_{t+1}}{T_t} \times \frac{100}{1}$$

$T_{(t,t)}$ = Teacher Retention

T_{t+1} = The stock of teachers in the academic session t+1.

N_{t+1} = Stock of teachers leaving the profession for another profession in year t+1.

T_t = Stock of teacher in academic year t.

You should remember that while the educational planner is determining the quantity of teaching force that will be demanded and retained on the job by schools, the following factors should be greatly considered:

(i)   total number of students enrolled.

(ii)   the average number of students that are taught at a time by a teacher and this is sometimes called the pupil-teacher ratio.

(iii)   average number of hours taught by the teacher per week.

(iv)   average number of hours of lectures received by students per week.

4.0   Conclusion

In conclusion, we have seen how important teachers are, because they are responsible for the training of our children who will become adults tomorrow. We have also seen that some of these teachers on the job can decide to quite the job due to some earlier on specified reasons.

5.0   Summary

This unit had examined the projection of teachers according to number of classes, student/teacher ratio. This unit had examined what is meant by stock of teaching manpower. It also explained what is meant by teacher retention ratio.

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(i)   Explain how teachers are projected according to number of classes.

(ii)   How are teachers projected according to student/teacher ratio?

(iii)   What do you understand by stock of teaching manpower?

(iv)   What is meant by teacher retention ratio?

7.0   References/Further Readings

Adesina, S. (1990).   Educational Management.   Enugu: Fourth Dimension Publishing Co. Ltd.

Ayeni, A.O. (2003). Educational System Analysis in J.B. Babalola (Ed). Basic Text in Educational Planning.   Ibadan: Department of Educational Management, University of Ibadan, Ibadan.

Owolabi, S.O. (2006).   Quantitative Methods of Educational Planning. Ijebu-Ode: Lucky Odoni (Nig.) Enterprises.

NEEDS ASSESSMENT AND PROGRAMME N

CONTENTS

1.0   Introduction

Human needs are so many and cannot be met. It is the needed to find out which of the needs are met and which ones are yet to be met. This unit will therefore deal with the quantitative need assessment and how such needs are met.

2.0   Objectives

At the end of this unit, you should be able to: (i) define what quantitative needs assessment is (ii) state the steps to be followed in establishing needs of the pupils and the community (iii) explain as briefly as possible these steps mentioned in (ii) above.

3.0   Main Content

Definition of Quantitative Needs Assessment

Economists will say that human needs are insatiable especially because of the scarcity of resources. To this extent, from the education sector, the needs are endless and whatever is the amount of money made available by government, individuals, organizations and other education stakeholders, such available money will not be able to meet the needs of the education sector. So, there should be a comprehensive definition of needs assessment which is a critical first step that should be taken by a school or a community in order to assess or find out what are the level of their needs. Remember that school needs vary from money to land, building, other infrastructural facilities needs, up to machine and equipment needs and even teaching/non-teaching manpower needs. Needs assessment helps an institution to know where such school is going to, find out why they are going to such place and even determine the best route to take to reach the destination. A careful and thorough

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...ent is the road map for change and it provides the basis for a strategic plan that addresses specific problems that required attention. Needs assessment process helps an agency, school or other entity to determine the nature and the extent of the problem in the community and helps also in finding out how the on-going problem is perceived among the diverse groups.

3.1 Steps to Follow in Establishing Needs of Pupils and Community

There are different steps to be followed while establishing the needs of both pupils and the community, and the steps will be explained as follows:

A. (i) Assessing the Existing Programme under Objectives:

Whatever programme that is being set up or mounted, there is every need that the objective(s) must be clearly stated. Such objectives are targets to be realised and they are expected to be very clear, unambiguous and concise. However in many instances, schools that are publicly owned have their objectives stated by the state or federal government and are found either in the commissioner or minister of education's office or in the office of the state governor or the president. The schools objectives to be realised must be clearly stated in measurable terms. If however, the school is owned by private individuals, it is expected that the objects for establishing such schools will be in the office of the school's proprietor, and which should be clear, measurable and concise. It is therefore imperative that in the process of carrying out assessment of school or community need, objectives of such programme or institution must be first

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...ble to determine what are the reasons for existence of such school or organisation.

(ii)   Assessing the Ex isting Programme under Contents:

Contents are what students will have to go through while passing through the school.   So, the content of the programme is usually described in the course outline of the schools concerned. Infact, the course outline can further be found in the reports of accreditation, official gazettees and other written materials or reports. In the course of assessing of needs, care must be taken to ensure that the course content offerings are readily made available. This will help to determine whether course contents offerings are adequate or not.   If   however,   they   are   not   adequate,   necessary amendments will be made to ensure that the course content offerings are up dated to meet the current needs of the society.

(iii)   Assessing the Existing Programme under Effectiveness in Daily Operations:

The adage says "it is only change that is permanent". Therefore, in each days of the week, month, year, there is prone to be changes. These changes are however important, because of different experiences human beings are equipped with everyday. So, there is need to assess the organisation, the community and even what is passed across to be able to determine   whether   there   is   effectiveness   in   the   daily operations.   Okure   (1997)   however   suggested   that effectiveness in daily operations of a given programme can be

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(a) Scores on standardized tests of mental ability, subject-matter readiness, subject-matter achievement, vocational skill achievement, etc.

(b) School attendance, grade completion, number of drop-outs, physical performance and defects, age-grade distribution.

(c) Postgraduate and follow-up measures such as further studies, number of students completing the programme, and vocational placement of the students. It is important that schools must get the analysis of its present operation.

S.A.E.: What do you understand by quantitative needs assessment?

B. Needs Assessment through Establishment of Pupil and Community Needs:

There is every need to carryout the needs assessment by establishment of pupils and community needs through: already existing data and written materials, research and study of the administrative and supervisory staff, teacher preparation, student preparation, accreditation and self study reports, state required academic standards, boards of education, citizen task forces and the advisory committee reports, full and comprehensive community survey, single purpose survey, and also outside consultants. These points are discussed below:

(i) Existing Data and Written Materials: There are different sources of data retrieval to establish the needs of the pupils. These data needed be collected, organised, arranged and even be presented in a clear format. Such sources include: the

ade up of the school official records, test scores of students, school drop-out statistics, follow-up studies and even the school research output publications report. Other information sources are non-school sources such as: the Department of Economic Planning and Research, records of the courts, police and security offices, chambers of commerce offices, and even independent consulting firms.

(ii) **Research and Study by Administrative and Supervisory Staff:** In schools, we have both the administrative and supervisory staff that an be saddled with assessing the needs of both the pupils and the community on a regular basis. They are expected to always make available needed statistics so as to be able to establish the trends of happenings, point to the changes that are necessary, assists in both the optimal budgeting and rational allocation of resources, and further realistically support new requests for resources.

(iii) **Teacher Participation:** Okure (1997) noted that the participation and contributions of teachers are essential to the needs assessment process. So, teachers of different ages and experiences and from varying disciplines must be involved and fully participate in the assessment process.

(iv) **Student Participation:** Remember that students too are products of the community and can also reason and discover what their needs are. Towards this end, students of whatever level should be allowed to meaningfully contribute to determining what their needs are and in summary be involved in all the stages of needs assessment.

and Self-Reports: Accreditation of programmes is very important in order to make the organizers to be on their toes. However, accreditation helps in showing both the strong and weak areas of a programme so as to discover the different steps that can be taken to provide remediation to problem areas. Accreditation exercises should be ceased as opportunity of finding out areas of both school and pupils needs and also help to determine targeted school improvement. Okure (1997) further said that accreditation should help a school to (i) identify its common needs throughout the school system (ii) identify the composition of the community that the school is serving (iii) pinpoint out the needs that are unique to a single school (iv) determine the need for different types of personnel (v) determine broad goals of the school.

(vi) Government Required Academic Standards: The government of the different countries have their required academic standards stated in government documents such as gazettees policies or even in the constitution. These standards are expected to be met by the schools, so that the well-being of the pupils and the community will be improved. Such government required and stated academic standards should serve as point of reference for schools to determine and assess their needs, in order to ensure the meeting of such pupil needs.

(vii) Board of Education: This is a board saddled with the responsibility of overseeing what is happening with the units of education. The board can be at the local or state or federal

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be highly involved in the process of determination of need assessment. The board is expected to identify, react, modify, profer likely solution and thereby improve the level of need assessment of the pupils and their community.

(viii) **Citizen Task Forces and Advisory Committee Reports:** The citizens also have their responsibility of determining the need areas of themselves and the students, and even the community in which they are living. Giving the opportunity, the citizens should constitute task forces and advisory committees on pupils and community need assessment areas. The citizen can determine what recreational items needed by them to make life more worthwhile.

(ix) **Comprehensive Community Survey:** This has to do with all round survey or discovery of the community needed or available resources. The community can set up a committee to look at this in order to find out what are the pressing needs of the community. While the survey is being conducted, different areas such as economic, cultural, agricultural, vocational, health, recreational areas are assessed to be able to find out critical areas of needs of the communities.

(x) **Single Purpose Survey:** The single purpose survey may be short, and targeted at obtaining unique information. For example, it may want to find out the needs of the specially created people within the community, and the result of such findings made available to the public.

(xi) **Outside Consultants:** In cases where there are no experts to carryout the consulting job, outside consultants can be

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in finding out the needs of the pupils and the community as a whole. The consultants are expected to conduct survey round the schools and the community as a whole so as to find out the various areas of needs and there by provide necessary suggestion targeted at meeting such needs. Note however that these consultants can be those that are independently into the consulting job or those that are from either the universities, or world known bodies (or organisations) such as the UNESCO, USAID, World Bank, e.t.c.

C.   Determining Unmet Needs:

Unmet needs are easily determined once needs of both the students and the community is assessed. Okure (1997) suggested that unmet needs can be determined by using the formula below:

X - Y = P, where

X   =   Total Needs

Y   =   Needs Being Adequately Met

P   =   Unmet Needs

3.2   Programme Implementation

After the identification of the needs of the community or individuals and even the schools, the next stage is to implement the needs assessed and so, Okure (1997) said that any conscientious and through assessment of needs will usually result in the identification of more desirable improvements than the financial, personnel and time resources will support.   So, the areas to be given priority attention and implementation will have to be a combination of what is mandated, what is pressured and finally what a needs assessment identifies.   Towards

on, the following are the criteria that will help in selection of those areas to be given priority attention as follows:

(i)   Will the programme meet the most critical needs of the targeted population that is assessed or to be served?

(ii)   Does it even show the potential for changing behaviour of the pupils?

(iii)   Is the programme to be implemented within the financial capability of the community?

(iv)   Is the programme administratively manageable in terms of variables such as personnel, time, money, programme materials?

(v)   Can it be calculated that the potential results will be commensurate with the cost, effort and the planning required?

(vi)   If there is disruption of the existing programme, will it not cancel out the gains achieved in the new programme?

(vii)   Will the new programme clear up the difficulties or deficiencies that will improve the performance in other areas?

(viii) Does it address itself specifically to more than one identified need of the group to be served?

(ix)   Have there been efforts made to study similar projects elsewhere so as to determine whether it is profitable by discovering other people's mistakes and avoiding such mistakes.

The expectation is that in the process of implementing the programme, answer to the above implementation question guides above should be a "yes", except for point vi. The belief is that implementation of the strategies must be carried out for effecting desired improvements.

This unit is very essential like other units because it delved into what quantitative needs assessment is. It has also been found that as much as we are still living as humans, our needs are insatiable and so, day-in-day-out, such needs will be changing in order to meet the world changing needs also. Remember also that what is permanent is "change".

5.0 Summary

In summary, this unit had examined the definition of quantitative needs assessment, steps to be followed in establishing needs of pupils and that of the community, and also what it calls for to implement the new programme under the process of satisfying the assessed needs.

6.0 Tutor-Marked Assignment

(i) What do you understand by quantitative needs assessment?

(ii) Explain briefly the steps to be followed in establishing needs of pupils and that of the community.

(iii) Explain what it calls for to implement the newly identified programme(s).

7.0 References/Further Readings

Okure, S.J. (1997). Quantitative Techniques in Educational Planning for Economic Development: An Interdisciplinary Perspective. Calabar: Eastland Press, 34 Ballantyne Street.

BARRIERS OF A NEEDS ASSESSMENT

1.0 Introduction

In the last unit, you were taught quantitative needs assessment and programme implementation. In unit seventeen, we will examine the benefits and barriers of a needs assessment.

2.0 Objectives

At the end of this unit, you will be able to: (i) explain the benefits of conducting a needs assessment exercise (ii) explain some of the barriers of a needs assessment exercise.

3.0 Main Content

Benefits of Needs Assessment

The following is a list of the benefits that communities and organisations will reap from conducting a needs assessment as follows:

(i) **Needs Assessment Makes Project Defensible, Fundable and Measurable:** A comprehensive needs assessment achieve results because the solutions are targeted at solving real causes of the problems identified. With the needs assessment, there are proponents of prevention programme, who can explain and defend their activities by carrying out a description of their relationship to the actual problems identified. Such proponents can demonstrate the basis for their plan when they request participation or financial assistance from government agencies, corporations, foundations or other supporters and stakeholders. Really, there are most finding sources and agencies that insist that a given project is evaluated so as to determine the efficacy of such project. The gotten information from the needs assessment serves as the basis for a subsequent evaluation. Project funders are however attracted to demonstrable

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evidences of progress and success of such project or programme.

(ii) **Needs Assessment Targets Resources:** Resources the economists agreed is scarce. These resources range from men, materials, money and even time. Needs assessment that is comprehensively carried out and properly completed enables a community, agency or even a coalition to more effectively utilize the scarce resources. This is because solutions are targeted at getting to the route and real causes of the identified problem(s). Note that so far resources for most organisations, communities, e.t.c. are scarce, this targeting can help to achieve results without wasting precious time or funding.

(iii) **Needs Assessment Re-Energize Existing Efforts:** Remember that programmes, patterns, procedures do become stale after a period of time, and in that wise, people do get tired, especially if they are working for prevention which do not have or lead to remarkable measurable milestones of success. Additionally, some activities, approaches and even processes that worked perfectly well a few years ago may infact, not now seem quite as effective. So, a new initiative or even a different twist on an existing programme, that is identified by a needs assessment, can therefore be the energizer which will get people further involved and active once more. There is need for consistent enthusiasm and involvement of the concerned stakeholders which makes them to be relevant and important. Energized coalition members are usually critical especially if there are projects that needs to obtain private sector funding or needs to gain attention of the media or even advocate for legislative change.

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up to Attract Media Attention: The media range from the print media such as magazines, newspapers, e.t.c. up to electronic media such as radio and the television. The media can further be gotten through the Information Communication Technology (ICT), especially through the internet. So, media attention can be gathered so that attention on an issue or problem facing a given community will be made. Known and thereby ensure that necessary action is taken. Further, media experts can write articles and stories both in the print and electronic media or on the websites of different media outfits targeted at drawing attention of the public to the level of seriousness of the problem at stake. Due to this attraction by the media, necessary funding can be attracted. Note however, that a good "needs assessment" must be full of information, backed up or supported with updated statistics.

(v) **Needs Assessment Helps in taking Decisions on whether old Programmes should continue or New Ones Developed:** There are activities and programmes that have already been in existence for sometime which needs re-examination. This will help in determining whether changes in the community or society in general continue to make the efforts relevant. One good tool that will help in determining what is working and what is not working is a needs assessment.

(vi) **Needs Assessment is a Good Strategy for Involving Various Members of an Organisation in Important Activities:** One of the best ways to make people feel valued is to ask for their opinion. So, the needs assessment gives people the opportunity to express their own views, relate their experiences and help to collect information from other members of the community. Members of the

be trained to distribute and collect surveys

S.A.E.: Mention the benefits of assessment of needs.

3.1 Barriers to Conducting a Needs Assessment

There are some barriers to conducting a needs assessment, among which are:

(i) **Time:** The process of conducting a needs assessment takes time and sometimes may seem obvious. Though, the reality can be much more challenging. So, collecting data and researching into attitudes can be a lengthy process. To some extent, about six months to a year can be spent researching into different issues and problems of concern. Infact, some expected participants will say "I have no time to participate in this programme".

(ii) **Finance:** This is a big requirement for the success of any activity to be undertaken by a group, organisation, individual or even a community. In the process of assessing needs, such assessors will have to move from one place to another, request for one facility or the other and even needs to administer necessary questionnaires on their respondents. All these require money, and once the monetary aspect is not present, there is little or nothing that anybody can do.

(iii) **Uncooperative Attitude of the Citizens or Samples:** In cases where needs assessment is been carried out, there will be the need for some samples to respond to some questions, fill some researcher instrument items, provide some sensitive answers to some sensitive issues. There is the tendency that in the course of doing these, the samples might refuse to cooperate with the

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This however will jeopardize the efforts of such assessors, and thereby hinder the needs assessment exercises.

As students, you should remember that there is nothing that is having a good side that is not having its bad or ugly side also. So, these are some of the barriers to the conduct of needs assessment.

4.0   Conclusion

This unit had ex-rayed that as much as needs assessment exercise is having its potential benefits, its barriers or the bad side cannot be ruled out, and these barriers had been explained to you in this unit.

5.0   Summary

In summary, the unit had exposed and made clear some of the benefits that will be reaped from the conduct of a needs assessment exercise. Also, some of the barriers were also made known to you. This however corroborate the adage that says "whatever has an advantage will have its disadvantage".

S.A.E.: What are some of the barriers of needs assessment?

6.0   Tutor-Marked Assignment

(i)   Highlight the benefits of a needs assessment exercise.

(ii)   Explain 5 of these benefits of a needs assessment exercise.

(iii)   List out the barriers of a needs assessment exercise.

(iv)   Explain the barriers you have listed in (iii) above.

7.0   References/Further Readings

Community How To Guide on Needs Assessment and Strategic
Planning: http://www.nhtsa.dot.gov/   people/injury/alcohol/
community % 20 Guides %20 html/Book 2_Needs Assess.html.
Retrieved 18/10/2009.

...ive Techniques in Education Planning ...oment: An Interdisciplinary Perspective. Calabar: Eastland Press, 34 Ballantyne Street.

EEDS ASSESSMENT

1.0 Introduction

In unit 17, we examined the benefits and the barriers of needs assessment exercise, and we therefore realised that there is nothing that is having a positive side that does not have a negative side. But care must just be taken to ensure that the barrier does not outweigh the derivable benefits.

2.0 Objectives

The objective of this unit which is on elements of needs assessment is that at the end, you should be able to list and explain the elements of a needs assessment.

3.0 Main Content

A comprehensive needs assessment includes the following elements:

(i) Collection and Analysis of Data.

(ii) Survey of Information.

(iii) Focus or Discussion Groups.

(iv) A Public Policy Review.

(v) A Review of Current Programmes, Activities and Resources.

i. Collection of Data:

In order to be successful either in the short run or/and long-run, a needs assessment must be comprehensive. In some areas, it might be difficult and tough to collect all of the suggested data, but it is important to collect as much data as possible. However, as the project moves on, a trend report can be prepared on a bi-annual basis or annual basis to show the attained progress or probably to

for further action. So, data plays an important part in the comprehensive needs assessment process. Data play the following roles such as: determining the current extent of the problem at hand so as to establish a baseline, determines where the coalition or an organisation wants to be in the future and data gives the organisation the information it needs to determine when they have achieved their targeted goal(s). Data can be made available from some of these sources: school systems, courts, probation and parole agencies, prevention agencies, colleges and universities, census bureau, public health departments and so on.

You must note that the more data that can be collected, the more effective the plan to solve the problem at hand. But the inability to collect data is disastrous, though, it shows a green light for the organisation to get a means of establishing a more effective data collection system as part of their strategic plan.

Assume that a needs assessment project has to do with solving the problem of alcohol intake by students in the secondary schools, data can be retrieved from the following broad categories:

(a) **Demographics**: Total population and ethnic breakdown of the state, country, or local government area:

(i) The number and ethnicity of youths under age 21 and what percentage of the total population they represent.

(ii) Number of licensed drivers that are under 21 years and what percentage of the total number of licensed drivers they represent.

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(i)   Alcohol-related crashes involving underage youth and how those compare to adults 21 years and over.

(ii)   Alcohol-related injuries involving underage youth and how those compare to adults 21 years and over.

(iii)   Alcohol-related fatalities involving underage youth and how those compare to adults 21 years and over.

(c)   **School Data:**

(i)   Suspensions, expulsions and other events related to alcohol.

(ii)   Vandalism and/or campus disruptions related to alcohol.

(iii)   Students referred for counselling, judicial action or other activity due to use of alcohol.

ii.   Survey of Information:

Information can be obtained from several sources and this includes:

(a)   **Youth Surveys:** Here there can be contact on the public school system(s) within ones community and the local colleges and universities to determine whether they survey students or adults regarding some problems such as drug and use of alcohol. If appropriate information is available, it may become part of the needs assessment and will serve as a baseline against which future surveys can be compared.

(b)   **Donated Survey Research Services:** Some professional polling, advertising or market research organisations, colleges, and even universities can charge some money to conduct statistically accurate surveys.   If such organisations exist within ones community, they can be asked to consider donation of their

vice and as a means for generating positive public relations. If, however, it does not exist, an organisation or coalition can draft a funding proposal for a local foundation, noting that many foundations are interested in research-based activities and programmes.

(c) **Market Surveys:** In cases where a budget is not sufficient to conduct a scientific survey, a market survey can be conducted to provide valuable information. A market survey can help to elicit requisite information, though, not based on representative samples and statistically precise measures. In the process of conducting market surveys, volunteers can distribute questionnaire instruments in recreational centres, churches, restaurants, movie theatres and so on.

iii. Conduct of a Public Policy Review:

A public policy review includes an examination of the following: laws and regulations related to the problem under investigation, policies and practices of public institutions such as the school systems, police departments about the problem under investigation, regulations on advertising in public places about the problem under study.

iv. Conduct a Review of Current Programme:

Before proposing different activities for the organisation to undertake, it is very important to determine whether similar activities are already underway. This is a much more effective use of limited and scarce resources, which enables an organisation to learn from the experience of other organisations. A review of current programmes will determine where gaps exist so that efforts can be targeted at the areas of greatest need. The review if carried out will help organisation to understand what is currently being accomplished in the areas of

ucation, public policy and even media. Conducting a review of current programme will reveal many appropriate programmes and activities that are not will publicized.

v.   Conduct of Focus Groups with Key Community Groups:

A focus group is a process of eliciting comments, opinions and perceptions about a particular idea, problem or product. Focus groups are made used of by many organisations to even test their products before such products or items are on a general note introduced to the general public. Some of the focus groups could be youths, educators from secondary schools, colleges or even universities, parents, media representatives, business groups and so on. Market research firms, public opinion pollsters, advertising agencies often have members that specialize in conducting focus groups. These identified experts might charge fees that are prohibitive for non-profit organisations and government agencies. While leading a focus group, it calls for special attributes, while some people may not be appropriate group leaders.

Therefore, an ideal focus group moderator must have the following features: She/he must be a good listener; responds positively to all comments whether rational or irrational; must appear to be neutral regarding opinions voiced by group participants; does not display any prior or special knowledge about the problem on hand and must prob sensitively for reactions and comments from anyone. After the focus group exercise, there is need to analyse the information that is retrieved, so that necessary conclusions can be drawn.

S.A.E.: What are the elements of a needs assessment?

4.0   Conclusion

It could be concluded that it is wise that we have examined in unit 18, the elements that make up a needs assessment. These elements

...nsideration while putting together needs assessment personnel and programme.

5.0 Summary

In this unit, we have examined the various elements of a needs assessment and these are: collection and analysis of data; survey of information; focus or discussion groups; public policy review and also review of current programmes, activities and resources. This unit further examined the features that a focus group leader must have or possess.

6.0 Tutor-Marked Assignment

(i)   Highlight the five main elements of a needs assessment.

(ii)   Explain the five elements you have highlighted above.

(iii)   Explain the characteristic feature that a focus group leader must possess.

7.0 References/Further Readings

Community How To Guide on Needs Assessment and Strategic Planning: http://www.nhtsa.dot.gov/ people/injury/alcohol/ community % 20 Guides %20 html/Book 2_Needs Assess.html. Retrieved 18/10/2009.

1.0 Introduction

This unit examines the meaning, types and purposes of feedback. Once there is input of any sort, there must be a feedback so as to find out it what is inputted is properly decoded.

2.0 Objectives

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

(i)   define the feedback

(ii)   explain the types of feedback and the purposes of feedback.

3.0 Main Content

3.1 What is Feedback?

Feedback describes the situation when output from an event or phenomenon in the past will influence the same event/phenomenon in the present or future. Whenever an event is part of a chain of cause and effect that forms a circuit or loop, then the event is said to feedback into itself (http://en.wikipedia. org/wik/Feedback). Feedback is also a synonym for (i) Feedback signal which is the information about the initial event that is the basis for subsequent modification of the event (ii) Feedback loop which is the causal path that leads from the initial generation of the feedback signal to the subsequent modification of the event. Additionally, feedback is a mechanism, a process or a signal that is looped back to control a system within itself. Such a loop is called a feedback loop. Intuitively, there are many systems that have an obvious input and output; feeding back part of the output so as to increase the input is positive feedback, while feeding back part of the output in such a way as to partially oppose the input is called the negative feedback.

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therefore, a control system has input from an external signal source and output to an external load; and this defines a natural direction or path of propagation of signal. The feed forward sense or path describes the signal propagation from input to output; while feedback describes signal propagation in the reverse sense. Whenever a sample of the output of the system is fed back, in the reverse sense, by a distinct feedback path into the interior of the system, to contribute to the input of one of its internal feed forward components, especially an active device or a substance that is consumed in an irreversible reaction, it is called the "feedback".

Positive feedback amplifies possibilities of divergences (evolution, change of goals). It is the condition to change, evolution, growth. It however gives the system the ability to access new points of equilibrium. Whereas, negative feedback helps to maintain stability in a system in spite of external changes. It is related to homeostasis. For example, in a population of foxes (which are predators) and rabbits (prey), an increase in the number of foxes will cause a reduction in the number of rabbits; and the smaller rabbit population will sustain fewer foxes, while the fox population will fall back.

Http://en.wikipedia.org/wik/Feedback informed that feedback is distinctly different from reinforcement that occurs in learning or in conditional reflexes. Feedback it is learnt combines immediately with the input signal to drive the responsive power gain element, without changing the basic responsiveness of the system to future signals. Reinforcement changes the basic responsiveness of the system to future signals, without combining with the immediate input signal. Reinforcement is however, a permanent change in the responsiveness of

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als.   Feedback however is only transient, being limited by the duration of the immediate signal.

3.2   Types of Feedback

The diagram below shows some types of feedback.
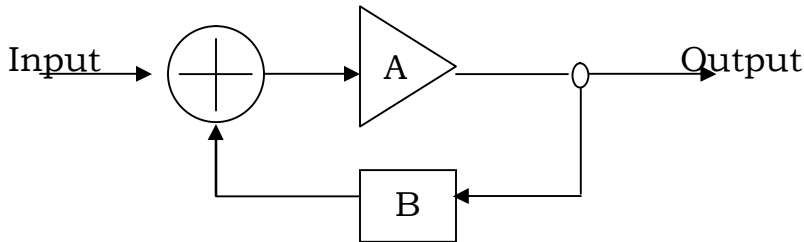
Ideal Feedback Model

Note that the feedback is negative if B < 0.

(i)   **Positive Feedback:**   There is positive feedback if the feedback signal increases and it leads to more modification in behaviour or whatever anyone ventures into. It also sought to increase the event that caused something.

(ii)   **Negative Feedback:**   Feedback is said to be negative if the feedback signal decreases, which leads to less modification in behaviour or other ventures or activities.   It reduces the feedback signal that caused it, and so called self-correcting or balancing loop.

(iii)   **Equilibrium Feedback:**   Feedback is said to be at equilibrium when the feedback signal does not change.

(iv)   **Formative Feedback:**   This feedback represents information that is communicated to the learner that is intended to modify a learner's thinking or behaviour for the purpose of improving learning. For formative feedback to be effective, it should permit or allow for comparison of actual performance with some established standard of performance. Formative feedback may

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as multidimensional, non-evaluative, supportive, learner-controlled, timely, specific, credible, infrequent, contingent and genuine (Brophy, 1981; Schwartz and White, 2000).

The main goal of formative feedback is to enhance learning and performance.

S.A.E.: (i) What is feedback? (ii) What is the difference between positive and negative feedback?

3.3 Purpose of Feedback

The main purpose of formative feedback is to increase student knowledge, skills and his/her understanding in some content areas or general skills and there are innumerable types of feedback that may be employed toward this end. The purposes of feedback is both directive and facilitative. The directive feedback informs the student about what needs to be fixed or revised, and tended to be more specific than facilitative feedback, that provides both comments and suggestions that help students in their own revision and conceptualisation.

4.0 Conclusion

Feedback is very important in the business of education because it will help to discover whether what is taught by the teacher is understood by the students. Furthermore, in whatever project that is dabbled into, especially those that will be of benefit to the populace and community at large, feedback is highly important to be able to determine whether the project is of profit to the recipient community.

5.0 Summary

This unit had examined what is feedback, the types of feedback and the purposes of feedback.

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(i)   What is feedback?

(ii)   Explain the types of feedback that we have.

(iii)   Explain the purposes of feedback.

7.0   References/Further Readings

Brophy, J.E. (1981). Teacher Praise: A Functional Analysis. Review of Educational Research, 51(1), Pp. 5-32.

Feedback.   http://en.wikipedia.org/wiki/Feedback.   Retrieved on 2nd October, 2009.

Schwartz, F. and White, K. (2000). Making Sense of it All: Giving and Getting Online Course Feedback. In K.W. White and B.H. Weight (Eds), The Online Teaching Guide: A Handbook of Attitudes, Strategies and Techniques for the Virtual Classroom. Boston: Allyn and Bacon.

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EVALUATION AND REVIEW TECHNIQUE

CONTENTS

1.0 Introduction

There are different programmes and projects that individuals, organisations, firms, schools want to accomplish. But due to lack of knowledge about how to go about the steps to be taken for successful completion of such projects and programmes, such project implementation ended up been a failure. But unit 20 will make known to you the Programme Evaluation and Review Technique (PERT) Network that can be taken to in order to ensure successful project implementation and execution.

2.0 Objectives

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

(i) Explain the Programme Evaluation and Review Technique (PERT)

(ii) Explain the PERT conventions

(iii) Explain ten of the terminologies of PERT.

3.0 Main Content

3.1 Introduction to Programme Evaluation and Review Technique

The Programme (or Project) Evaluation and Review Technique commonly abbreviated as PERT, is a model for project management designed to analyse and represent the tasks involved in completing a given project. Though, Okure (1997) recorded that in recent years a new planning technique christened "systems analysis" captured the attention of many educational administration theorists. The systems analysis originated from operations research, which was a technique developed prior to and during World War II by the British to apply radar research

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military problems. As at 1961, the use of systems techniques was accelerated in the United States especially when Robert McNamara was the Secretary of the Department of Defence. The simple guide behind the system analysis is that it is a complex of interdependencies between parts and processes that involve predictable or at least identifiable regularities of relationships. If however, one of the parts of the system is altered in some way, each of the other parts makes a predictable adjustment also to the alteration made.

The Programme Evaluation and Review Technique (PERT) is one of the planning techniques that grew out of the systems analysis concept. PERT is a method that analyzes the tasks involved in completing a given project, especially by identifying the time needed to complete each task, identifying the minimum time needed to complete the total project. Put in another way, PERT is basically a process which facilitates an organized attack on a project by breaking up and charting the events which must be completed in order for the project to be completed successfully, economically and even within the specified time. PERT was developed primarily to simplify the planning and scheduling of large and complex projects. PERT was able to in fact incorporate uncertainty by making it possible to schedule a project while not knowing or having a knowledge precisely about the details and durations of all the activities. PERT is an event-oriented technique rather than start – and completion-oriented one. Its usage is more in projects where time, rather than cost, is the major variable factor. Further, PERT is applied to very large-scale, one-time, complex, non-routine infrastructure and research and development projects.

that facilitates taking of decision. So, the first draft of a PERT chart will number its events sequentially in 10s (e.g. 10, 20, 30, 40, 50, e.t.c.). This is to allow the later insertion of additional events.

(ii) Two consecutive events in a PERT chart are linked by activities, that are conventionally represented as arrows (e.g.→) in the diagram above.

(iii) The events are presented in a logical sequence and no activity can commence until its immediately preceding event is completed.

(iv) The project or activity planner decides which milestones should be PERT events and also decides their proper sequence.

(v) A PERT chart may invariably have multiple pages with many sub-tasks to be accomplished. PERT has been found to be valuable to manage situations where tasks are going simultaneously to reduce the redundancy.

S.A.E.: What is Programme Evaluation and Review Technique?

3.3 PERT Terminologies

There are some important terminologies that are commonly used in PERT, and these will be explained as below:

(i) **A PERT Event:** This is a point that marks the start or completion of one or more tasks. A PERT event consumes no time, and uses no resources. It however marks the completion of one or more tasks and is not "reached" until all of the activities leading to that event have been completed.

(ii) **A Predecessor Event:** An event (or events) that immediately precedes some other event without any other events intervening. Such event may be the consequence of more than one activity.

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An event (or events) that immediately follows some other event without any other events intervening. It may be the consequence of more than one activity.

(iv) **A PERT Activity:** This is the actual performance of a task. It consumes time, and as well requires resources (such as labour, materials, space, machinery) and it can be understood as representing the time, effort, and resources required to move from one event to another. A PERT activity cannot be completed until the event preceding it has occurred.

(v) **Optimistic Time (O):** The optimistic time is the minimum possible time required to accomplish a task, with the assumption that everything proceeds better than is normally expected.

(vi) **Pessimistic Time (P):** This is the maximum possible time required to accomplish a task, assuming everything goes wrong (but excluding major catastrophes).

(vii) **Most Likely Time (M):** This is the best estimate of the time required to accomplish a task, assuming everything proceeds as normal.

(viii) **Expected Time (T_E):** This is the best estimate of the time required to accomplish a task, assuming everything proceeds as normal (the implication being that the expected time is the average time the task would require if the task were repeated on a number of occasions over an extended period of time).

$$T_E = (O + 4M + P) \div 6.$$

(ix) **Float or Slack:** This is the amount of time that a task in a project network can be delayed without causing a delay –

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(free float) or project completion – (total

(x) **Critical Path:** This is known to be the longest possible continuous pathway taken from the initial event to the terminal event. It determines the total calendar time required for the project; and, therefore, any time delays along the critical path will delay the reaching of the terminal event by at least the same amount.

(xi) **Critical Activity:** An activity that has total float equal to zero. So, activity with zero float does not imply that it is on the critical path.

(xii) **Lead Time:** This is a time by which a predecessor event must be completed in order to allow sufficient time for the activities that must elapse before a specific PERT event reaches completion.

(xiii) **Lag Time:** This is the earliest time by which a successor event can follow a specific PERT event.

(xiv) **Slack:** The slack of an event is a measure of the excess time and resources available in achieving this event. Positive Slack (+) would indicate ahead of schedule, while negative slack would indicate behind schedule and zero slack would indicate on schedule.

(xv) **Fast Tracking:** This is the performance of more critical activities in parallel.

(xvi) **Crashing Critical Path:** This is the shortening duration of critical activities.

S.A.E.: Mention ten of the PERT terminologies.

been informed about one of the "systems analysis" tools. This unit is however an introductory unit to the PERT Network, taking you through some of its terminologies and the conventions.

5.0 Summary

This unit had examined the historical introduction to the emergence of the "systems analysis" network, one of which is the PERT. The unit also explained some of the terminologies of PERT. The unit had also explained some of the PERT conventions.

6.0 Tutor-Marked Assignment

(i)   Explain the historical development of Programme Evaluation and Review Technique.

(ii)   Explain the conventions of Programme Evaluation and Review Technique.

(iii)   Explain ten of the terminologies of Programme Evaluation and Review Technique.

7.0 References/Further Readings

Okure, S.J. (1997). Quantitative Techniques in Educational Planning for Economic Development. An Interdisciplinary Perspective. Calabar: Eastland Press, 34 Ballantyne Street.

Programme Evaluation and Review Technique. http://en. wikipedia.org/wiki/program_Evaluation_and_Review_ Technique. Retrieved 10/10/2009.

IS IN THE IMPLEMENTATION OF

CONTENTS

1.0 Introduction

Unit 20, exposed you to some rudimentary knowledge of the PERT. So, this unit will deal with PERT diagrams in the process of implementation of programs.

2.0 Objectives

At the end of this unit, you should be able to: (i) explain how PERT diagram helps in the implementation of programmes. You should also be able to calculate the expected time (T_E) of competing programmes by using the formula $T_E = (O + 4M + P) \div 6$.

3.0 Main Content

PERT is a network based procedure that facilitates planning, scheduling and controlling of education programmes and projects (Sarva, 2000). The PERT provides the methods for measuring actual progress of a programme against the expected progress. This gives room for comparing consequences of proposed alternative strategies, for predicting future programme status, and for optimizing utilization of scarce resources.

One key step while planning for implementation of the educational programme, is to list all possible activities. The second step is to gather necessary information about predecessors of each activities. Sarva (2000) went on to inform that one way of doing this is to identify the immediate predecessors of each activity. Third, based on the information given above, PERT network for the programme can be developed. Fourth, so far the PERT network of the programme is developed then the need is to obtain information on the time required to complete each activity. The next is fifth. This involves provision of three alternative time estimates

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most probable activity time; and pessimistic activity time). The three activity time estimates help the programme team to make the best guess of the expected activity time. Uncertainty can be expressed by providing estimates ranging from the best to the worst possible time for competing individual activities. On a final note, the PERT network for the given educational programme is drawn on the basis of the above information.

So far the PERT network is drawn, the next step is to estimate the critical path in the network. This estimation is done by using forward pass and backward pass methods, (Okure, 1997). The estimation of the critical path using the methods above, helps to establish early start and latest finish time of each activity. Further, activity slack is estimated by making use of early start and latest finish times. Those activities that have no slack are termed as the critical activities and the longest path on the PERT network is identified as the critical path. So, the time that is required to traverse the critical path becomes the programme implementation period. In cases where all these information are tabulated, it becomes the implementation schedule of the Educational Programme, as shown in the table below:

In the table, there are seven tasks labeled A through G. Some of the tasks can be done concurrently (A and B) while others cannot be done until their predecessor task is complete (C cannot begin until A is complete). In addition, each task has three time estimates: the optimistic time estimate (O), the most likely or normal time estimate (M), and the pessimistic time estimate (P). The expected time (T_E) is computed by using the formula :

$T_E = (O + 4M + P) \div 6.$

		e Estimates			Expected Time
		(O)	Normal (M)	Pess. (P)	
A	-	2	4	6	4.00
B	-	3	5	9	5.33
C	A	4	5	7	5.17
D	A	4	6	10	6.33
E	B,C	4	5	7	5.17
F	D	3	4	8	4.50
G	E	3	5	8	5.17

Source: **http://en.wikipedia.org/wiki/Programme_Evaluation_ and_Review_Technique. Retrieved 10/10/2009**

### 3.1   PERT Diagrams in the Implementation of Programmes

Network is a foundation of a PERT system. A network is a flow diagram that is made up of "Events" that is tied together with connecting arrows that depict the "Activities" necessary to accomplish the respective events. The network however represents all that is necessary from "start to finish" for a specific end objective. Note that examples of events are: approved projects review of literature, testing that is started and testing that is completed. Samples of activities are: design of instruments to be administered on the samples, procurement of stationeries, purchase of refreshments, preparation of behavioural objectives (Okure, 1997). Circles or boxes are made used of to denote events; while arrows are used for activities. However, activities that do ot consume scarce resources are called dummy activities and are even represented by broken lines.

Okure (1997) reminded us that in construction of network, it is not so necessary to list all events as either beginning an activity or ending one. If only completed activity is taken note of, it is therefore assumed that the activities needed to complete the event start when the previous event is completed. The different activities may start at anytime after the

ven if it is not detailed in the network. For example, in the diagram that will be given below, activity 8 – 9 can begin at anytime after event 8 has been completed.

Note that there are circles and boxes in which different events are numbered and this make up the network. Different activities are identified by using the numbers of the events between the activity that takes place.
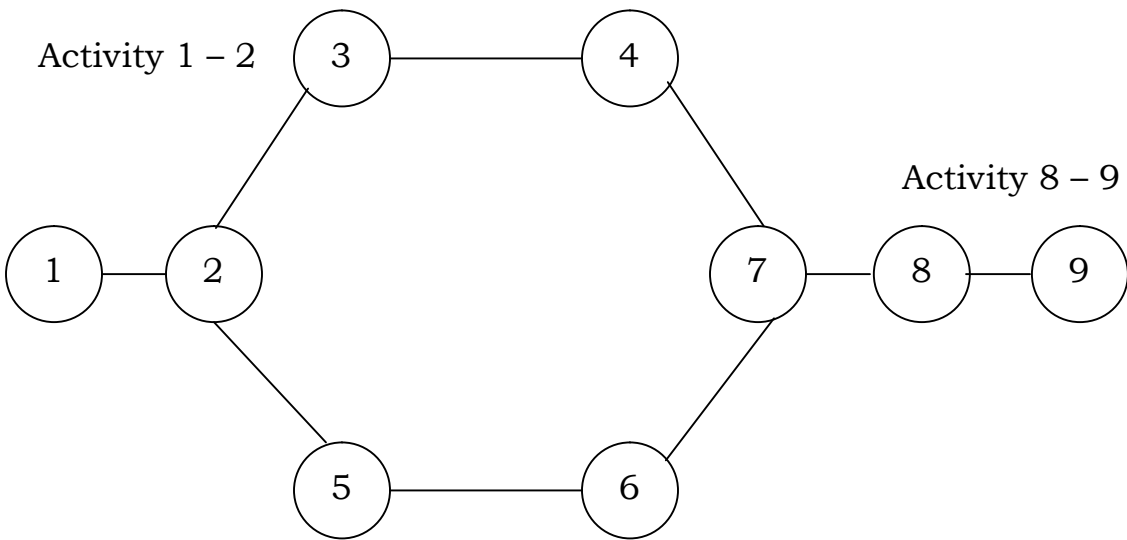
For instance, Activity 1 – 2 represents all the activities that take place between events one and two.

Note however, that:

(1) Events 1.3.5.7 are starting off events.

(2) The activities 1 – 2, 7 – 8, 3 – 4, 5 – 6, 8 – 9 consume the scarce resources.

(3) Activity 1 – 2 must be completed before starting off activities 3 – 4 and 5 – 6.

(4) Assume however that there are sufficient resources available, there can be simultaneous conduct of activities 3 – 4 and 5 – 6.

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7, 2 – 5, 6 – 7 are called dummy activities because they will not consume many resources.

(6) Activity 1 – 2 can be said to be a constraining activity of 2 – 5 and 2 – 3.

(7) 1 and 2 and 7, 8 and 9 are representing series and the portion of the network connecting events 2, 3, 4 and 7 and 2, 5, 6 and 7 can be said to be parallel construction.

(8) Event 2 serves as constraints to events 3 and 5. Activities along 2 – 3, 2 – 5 constitute a burst construction.

(9) On the other way round, events 4, 6, 7 along with activities 4 – 7, 6 – 7 implied merge construction.

(10) The events 3 and 5 constitute what is called multiple start events, while events 4 and 6 are multiple completion events.

S.A.E.: What can you say about the PERT diagram made used of in the implementation of programmes?

4.0 Conclusion

This unit is germane because of the samples shown about calculation of the expected time of project completion and the diagram showing the step by step activity to be followed while using PERT.

5.0 Summary

This unit had taught you how to calculate the expected time by using the fomula:

$$T_E = (O + 4M + P) \div 6$$

The unit also showed the simple PERT diagram of how activities are implemented.

6.0 Tutor-Marked Assignment

1. Calculate the expected time from the table below using the formula $T_E = (O + 4M + P) \div 6$.

		Estimates			T_E
			M	**P**	
A	2	3	5	8	
B	4	2	6	8	
C	3	2	2	2	
D	5	1	4	10	
E	6	2	4	6	
F	5	7	8	10	
G	6	1	2	4	

2. Explain the PERT diagram used in the process of implementation of programmes.

8.0 References/Further Readings

Okure, S.J. (1997). Quantitative Techniques in Education Planning for Economic Development: An Interdisciplinary Perspective. Calabar: Eastland Press, 34 Ballantyne Street.

Programme Evaluation and Review Technique. http://en. wikipedia.org/wiki/program_Evaluation_and_Review_ Technique. Retrieved 10/10/2009.

Sarva, S.A. (2000). Planning Under SSA: Pre-Project Activities and Plan for Implementation. http://www.educationforallinindia. com/page150.html. Retrieved on 15/10/2009.