

NATIONAL OPEN UNIVERSITY OF NIGERIA

ECE 121



Child Development Module 1

ECE 121 (Child Development) Module 1

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Unit I The Need for Studying Child Development

1.0 Introduction

It is expected that to be able to give function education to children in their early years, we should be interested in them. One way by which we can show this interest in them is to understand them. To understand children we must appreciate certain features that make up their personalities. Note that the making up of one's personality is a process involving many complex things. One of such complex thing is the focus of this course, and that is Development.

If the interest of the adult taking care of children is to make the children comfort, happy and live a full healthy life in future, then the adult need to understand the developmental stages of the child. Children need comfort, safety, love, warmth, security etc. To be able to provide all these and make them happy and subsequently educate them, the knowledge of child. Development is essential.

This is probably the first course you will be doing in this program B. A. Early childhood Education. This unit is therefore taken as the introductory unit to the programs and of course introductory unit to the course child Development. I am sure you will enjoy the course and the program as a whole.

2.0 Objectives

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

- explain the meaning of child development
- appreciate the need to study child development
- identify methods of studying child development
- describe the methods of studying child development
- practice studying children
- recognize problems of studying children
- suggest ways of ensuring an all-round study of the development of a child.

3.0 Main Content

3.1 Meaning of Child Development

This is likely to be your first specialist course in the program B.A. Early Childhood Education, and as such before we begin to talk about child Development, let's make it clear what we are considering in this program as Early childhood Education.

Early Childhood Education typically includes the study of nursery schools, kindergarten and primary levels of education. Some also refer to it as pre-primary and primary Education.

Although, different trends in educational issues are considering other broader interest of Early Childhood Education, some even include the study of different age ranges of children in Early Childhood Education.

I want to assure you that some of the courses you will come across in this program you will get to know more about what Early childhood Education is all about.

Now let's talk about the present course – child Development.

Child Development can be taken as natural development in every child in every culture of the world. Parents all over the world, observe their children and come out with guidelines on how to take proper care of their own children and other children. Child Development has helped to provide useful information on the general growth and development of children. To a great extent the knowledge of child Development has helped to provide appropriate attitude, skills and values to children.

Some universities have been teaching child Development since the 1900's. It is sometimes taken as part of disciplines like Psychology, social Psychology, anthropology and Home – Economics. Some other higher institutions refer to Child Development as Human Development.

It is necessary that the study of child development goes along with the study of subject matter areas like Mathematics, social science, sciences, and language so that students can link the development principles to the subject area and how it can be applied in the process of teaching young children. The main task of a teacher is to ensure that high standard teaching and learning takes place in the class, and even outside the classroom, the teacher needs to know the general characters of children and consider how the knowledge can benefit him/her.

Now that we know what we mean by child development, let us look at what we stand to gain from the knowledge of child development. But before then, check your progress.

3.2 Purpose of Studying Child Development

The understanding of child development is important to the future academic growth of the child. Some great thinkers of the past believe that the traits children show in their early years of their life have great implications for their future development. These involve with the studying of child development have come to identify the following as purposes of studying child development.

3.2.1 Recognizing the Nature of the Child

The study of child development (CD) enables the teacher to understand the need, interest, nature and problems of the child. By understanding the nature, need and interest of the child, the teacher will be able to teach the child effectively and efficiently.

The knowledge of CD enables one to recognize what the children need at the different stages of their life. With this understanding it will be easy to give them support, encouragement, control, help them to solve their problems and provide necessary things for them to enrich their mind and body.

3.2.2 Predicting Adult Behaviour

As adults, we all know that we too have passed through childhood. We are also able to recognize certain characteristics which we have been learning from childhood. A teacher needs to study the development of a child so as to be able to predict the kind of person, the child will develop to as adult. It is also possible to predict the time or period that a child will be able to do certain things e.g. cutting of teeth, writing, reading, speaking etc. It is also possible to predict the kind of occupation the child can do well in when he becomes an adult.

3.2.3 Appreciating Variations in Individuals

We are able to appreciate variations in the behavior of individuals as we grow from child to adult. It is when one is a child that a lot of changes (development) takes place in one's life. It is the changes that take place in person when he is a child, that will determine to a great extent, the type of adult he will be. Such changes like height, acquisition of personality, type of language memory, reasoning pattern, wishes, opinions, anxieties etc. When we now notice the variations in these characteristics among individuals (as adults) we are able to understand them as effect of their early childhood development.

3.2.4 Using the Knowledge to Improve the Life of other Children

By studying the development of a child, we are able to apply the knowledge gained to improve the life of other children. Those in the position of authority usually seek advice from those who have expert knowledge of CD, so as to plan good things for children. The teachers and others who study children are useful in giving such advices. The teacher who have mastered child development can also plan good teaching and learning methods. He can also make use of the expert advice in addition.

3.2.5 Enjoying the Study of Children

Child study is an interesting thing to do. Children can be very interesting as one takes time to study their development. Artists, Poets, Philosophers etc, are usually attracted by children. These categories of people usually admire the creativity children show, even while playing and how it is so easy for children to learn the things they do. Many adults, generally, are usually amused by the activities of children as they watch them grow.

3.2.6 Showing Understanding to their Behaviour

When we understand child's development processes, we will not be baffled, irritated or annoyed when they do certain things, we consider some of their unpleasant behaviors according to their stage in life. Occasions like:

- when a two-year old wets his pants
- when a child of three-years old bashes his head on his teddy or jumps up and down destroying a valuable thing
- when a four-years old child cries because his mates refuse to play with him
- when a six-years old sucks fingers.

We are able to know that behaviors of these types are quite normal in their stage and that the child will eventually outgrow such behaviors later.

3.2.7 Understanding their Capabilities

We will not make a mistake of asking children to do what we believe they cannot do. We will not waste the time of a child, except deliberately, by asking him/her to do certain things. We know what is beyond the limit of children at every stage of their life through our understanding of the processes and stages of child development.

For example, we will not be

- asking a three year old baby to stand still or sit in a place.
- encouraging nursery class students to share playing materials.
- expecting a five year old child to read a passage from a book.

3.2.8 Being Able to Detect Unusual Behaviour

We can spot danger signals or detect problematic situation in child's behavior through our knowledge of child development when we notice a child behaving too long in a manner that he should have outgrown we will call another person's attention to it, so that something can be done.

Examples:

- A one-year old child who cannot sit up on his own.
- A two-year old child who cannot walk.
- A ten-year old child who cannot read simple words.

Those unusual behaviors can be detected with experience.

We have now seen all that we can gain by studying children, we may now consider the methods that we can adopt and the likely problems we may face in the process of studying children. But before then let's check our progress.

3.3 Methods and Problems of Studying Child Development

There are different methods of carrying out research study on child development, the method to use depends on the purpose, use and condition for the study. Here are some common methods

- the scientific method
- the traditional method.

3.3.1 Scientific Method

The scientific method can still be divided:

- Experimental method

- Scientific Observation method: Longitudinal and Cross-sectional
- Other scientific method includes use of:
 1. Interviews
 2. Anecdotal records
 3. Rating scale
 4. Questionnaire

I will not like you to get frightened with these terms, try to understand the meanings of the terms on your own. As much as possible will describe them briefly, but I want to assure you that as you proceed in this program, all these terms will become familiar to you.

3.3.1.1 Experimental Method

This is a scientific method of studying children. The method allows the person studying the children's behavior to control and make certain things to change as he may wish. The person can take up a particular issue to study at a time, or study certain behaviors along with other behaviors (or characteristics).

For example, the person studying some sets of children, they may all be of the age group, he can teach a set to perform a task, may be to draw an object, then later mix them with another set that were not taught how to perform the task. The person will then watch how all the sets of children are carrying out the steps towards performing the task. From the results of the experiment, many things will reveal itself about the behavior of the children. It is experiment because, the person studying the children is controlling some things, comparing the difference between those who were taught with those who are not taught. He wants to know whether teaching them before, will make any difference. There are many ways of doing experimental study.

3.3.1.2 Scientific Observation Method

Note that the last method-experimental method, is also scientific, the observation, is that the person study the children does not control any behavior or characteristics. Like the example given above, here the person will not teach any group or set, just observe all of them and see how they will perform the task. We have two types of scientific observation method and these are: Longitudinal method and Cross-sectional method

3.3.1.3 Longitudinal Method

In this way, a set of children can be studied for a long time continuously. For example, the person studying the children can identify a group of 10 children can be nursery class, he then start to be observing some aspects of their life, records how they do these things, way how they start to write I or talk, he will continue to do this on the same set of children till they get to primary four or even primary six. All the while the person record what they, may be every month or every two-two weeks or every three-three months. The person then tries to study his records and analyze his findings.

The time for longitudinal study may be as long as three years, five years, six years, or even 10 years continuously. This is done so as to study certain characteristic in children as they grow. A comprehensive growth and development of children can be studied in this way. The changes or the stability in some children's characteristics can also be studied like this.

This method of studying children is however expensive and takes too long time before one can complete it. And also some of the children the person is studying may not be available again for the study before the end of the study, for one reason or another.

3.3.1.4 Cross-sectional Method

This is a process whereby the person studying the children may gather small sets of children of different age group. For example, he may get 5 nursery class students, 5 primary 2 students, 5 primary 3 students 5 primary 5 students and then observe them performing some task. The task may also be reading or writing like the example we gave in longitudinal method. He will then compare the way they perform the task across the four groups he has selected. At the end the person will come out with a report on how similar or different they are.

The cross-sectional method is better than longitudinal because it is easy to complete the study within a short time, and it is not expensive. Again the person studying the children is sure of having the number of children he want in each group.

The method is however, not as good as longitudinal method because, a lot of things are assumed, unlike the longitudinal method. For example, in the example we are taking, the person studying the children is assuming that the primary 3 students he is using were like the nursery students when they were in nursery, which may not be so. In the longitudinal, it is the same set of students, no assumption of this type.

3.3.1.5 Other Scientific Methods

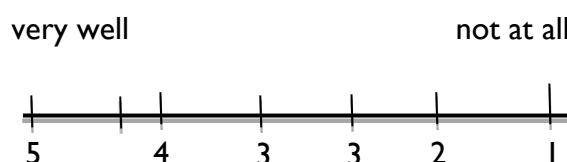
Interviews: The person carrying out the study, can carry out interview with the children, or the parents, teachers, or care givers of the children he is studying.

Anecdotal Records: This involved writing down everything a child does in a particular setting during a given period. It may be while playing or while in the class, may be throughout a day or week.

Using Rating Scale in Questionnaire: The person studying the child can draft a scale or a particular issue (Rating Scale) or write out some questions (a questionnaire) for the child to answer.

Examples

I. I like going to school



(Rating Scale)

2. Which of the following food do you like best

Rice - Bread - Beans - Yam –

(Questionnaire)

Note that the person carrying the study must first of all explain how to answer to the child or parent or teacher or care giver of the child. And he must seek their co-operation.

3.3.2 Traditional Methods

Parents and other adult members of the society can also observe children as they grow with writing their observations down or using any particular established procedure. They can judge whether a child is growing well or not using their experience.

3.4 Problems

In the process of studying the development of children, some problems are usually involved. We will just describe some of them briefly as follows:

Lack of funds

There may be inadequate fund (money) available to study child development especially on a large scale i.e. involving a large number of children of different backgrounds. Though bodies like UNICEF, UNESCO are trying in this respect. We need to have government and other established agencies to fund study on child development.

Lack of competent people

Many people are not trained in the area of studying children. It is therefore easy for those involved in it to lose interest and be frustrated.

People not making use of the findings

The findings of few studies on child development may not get to the general public. The report of the study may just be locked up in somebody's office. In this way they are not useful to the general public.

Ready note record keeping

Many of those who even carry out study on child development may not keep their record well enough.

Illiteracy and Ignorance

Some parents because of their low level of education or none at all, or due to share ignorance or superstitions belief may not cooperate with the peoples carrying out study on their children.

Nature of children

It may not be easy to gather meaningful information from children because of their nature. Children are not good at expressing themselves meaningfully and may be difficult to motivate, especially the pre-school ones.

Legal and moral aspect

There is a limit in law, to what a researcher can make children do against their wish. Apart from this, some parents or teachers or school authorities may not like the person asking the children certain questions.

Identify a set of 5 children in your school or area and conduct a study on how they come about talking. You will need to know how they start to pronounce words. You may need the assistance of their mother. Put down your records like below:

0 – 3 months

3 – 5 months

2 – 5 years

(This division, however depends on the age of the children you have selected)

4.0 Conclusion

Child Development study is an essential aspect of early childhood education, that every teacher or adult with keen interest in young children should participate in. There are many things to gain by studying the development of a child. It is important to watch how children behave and to act on what we learn about them and from ourselves. We can use the knowledge to improve upon the development of children put in our care as teachers, parents or adults in the society.

5.0 Summary

In this unit, you have learnt:

3. the meaning of child development
4. the need to study child development
5. methods of studying child development
6. how to study children
7. how to recognize problems of studying children
8. the suggested ways of ensuring an all-round study of the development of a child.

6.0 Self-Assessment Exercise

1. What is Early Childhood Education?
2. What is Child Development?
3. Mention and discuss 5 major benefits of studying child development

Unit 2 Assessment of Growth in Children

1.0 Introduction

Some factors were mentioned in the last unit as factors that may influence the rate of growth of a child. You will also recall that one of the objectives of the last unit is that you should be able to identify a child that is not growing normally from among a group of children. It was also pointed out to you that it is important for teacher or parent to monitor the growth of children. These last two objectives of the last unit is expected to be at the level of your applying what you have learnt. In this unit, we are going to elaborate more on how you can recognize a child that is having abnormal growth or a child that is not growing as expected.

There will be some activities which we take you out a bit out of the content of this unit. There are going to be practical exercise which may also demand that we check some things up in our secondary school textbooks. This is just for simplifying and clarity of points, so do not be afraid that you are going to Biology again.

2.0 Objectives

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

- recognize the need for a growth standard
- select parameters that can be used to assess growth standard
- use growth charts to assess the physical growth of children
- identify the disorder of growth of different ages of young children
- define some terms use to describe abnormal physical growth e.g. tall stature, short stature and obesity.

3.0 Main Content

3.1 The Need for Growth Assessment

Parents and guardians who have entrusted the early childhood Education of their children or wards to the hands of school teacher or care givers, do turn only because of the academic aspects. One of their other reasons may be because the parent or guardians especially the mother is so busy with house hold chores and her career that she may not even have time to notice any unusual thing about her child. Such a parent or guardian expect the teacher to do such thing for her instead. Sometimes you hear even the parents slaving the teacher of their children for not telling them certain things the teacher had observed to be bad in the children.

In our discussion in unit one, the need for studying child development, one of the purpose of studying child development is to be able to detect unusual behavior in children. Children are put into our care as teachers because of the trust and confidence their parents and the society at large have on us. It is therefore part of our duty to be able to monitor and assess the growth and of course development of children put in our care. In the last unit, we

discussed growth, a type of physical development. I believe that before we move to another topic, we should also discuss briefly how we can assess the growth of children. Before we can assess the growth of children, we need to know what standard to base our assessment on. You may then be asking in your mind, what is a growth standard?

3.1.1 Selection of Growth Standard

Sometimes ago, the World Health Organization (WHO) had recognized the need to have a growth chart for both children and adult, so as to compare the growth rate of individual across the world. The committee on International Union of Nutrition sciences has also proposed the recommendations of a growth standard. However, researches are still on a growth standard that can be acceptable by all countries of the world. They advised that each country of the world should come up with their own standard through the study of child development in their respective countries.

In Nigeria, for example, there is no particular published growth chart that can base used to monitor and assess child growth with. However, it is a common thing in an hospital, especially in the children's section, to in a growth chart illustrating how a child is expected to be growing from birth to about 18 years.

Some experts who had been studying child development had even suggested that the growing pattern of the children of the elite in the population of a country can be used as a standard. Their argument is that the children of such well-to-do and educated members of the society have access to the best health care and they are always eating good food. This is saying that except for the factor of hereditary such children of the well-to-do grow normally. The child development experts believe that every other children of the community should also be assessed based on their and such unlucky children should be monitored to grow normally as well.

A warning here is that, some parents may even be well to do, but may not have enough time or awareness on the need to monitor their children who may not also be growing normally. This is why a national growth standard is necessary, so that every child can be assessed based on this.

We may however consider certain features of growth so as to know what to look for while assessing the growth pattern of children.

Self-Assessment Exercise I

1. Visit a hospital or health centre and ask for their growth chart. Study it.
2. Select a set of children within the same age bracket, take their height and weight, and compare the measurements.

3.2 How to Assess Growth Pattern

Children do not grow in the same rate, and the growth of a child does not occur in all direction in the same rate. Some parts of the body grow of faster rate than other parts. The rate of growth as a child become older may be so rapid in some stages while so slow in some other stages of their live. We have discussed this in the last unit. Here we want to

consider certain features of growth, these features in some books are called principles of Growth. For simplicity, we refer to them as features. These are.

9. Cephalo-caudal (Head to foot)

This refers to growth pattern of head growing before the other parts of the body. This is often called the “head to foot” growth. The brain for example, which is in the head, grows up to 70% of it as early as when the individual is 2 years old. (i.e. at childhood). No other part of the body grow so fast in that stage.

10. Proximodistal

This means that the centre part of the body grows more before parts like leg, arm etc.

11. Discontinuity of growth rate

In some stages of the life of a young child, we have periods when we have rapid growth and some other periods when it is almost as if no growth is taking place. For example there is period of rapid growth rate between age of 0 months to 2 years, while the growth rate slows down between age 2 years and 10 years. Below is a sketch graph of growth rate.



Cross-sectional method along with the growth standard. Also some measurement of some specific parts of the body can also be a pointer to whether or not the child is growing normally or not.

Some of these measurements were mentioned in unit one. We may still list them again:

Weight

The weight of the child follows a particular pattern as the child grows: the weight should be about 4 times the weight at birth.

After 2 years: the weight gain should be at the rate of 2 eg -.5 eg. per year.

Length/height:

The standing height of a child after 2 years old is taken as child's stature.

From age 2: the child increases in height and the rate of 4 cm to 5 cm per year. By the

From age 13: the height of a child is three times his height at birth

Body Circumference

A Circumference is the round length of round object. The circumference of the head and chest in particular is a pointer to whether a child is growing normally or not.

Head

An increase of 2 cm occurs after one year, later a small increase of 0.5 – 1.0 cm occur after every year till the person is 18 years old.

Chest

The head circumference is usually more than the chest, at birth, but later, the size of chest become more. No significant increase of size is noticed between age 1 and 5 years.

I will now want you to do the following activity so as to set this growth monitoring procedures right.

Self-Assessment Exercise

Visit a health centre or clinics familiarize yourself with instruments use for measuring the height, weight, circumference of the head, and chest. Take note of all the precaution to be taken while taking the measurement.

3.3 The Use of Growth Chart

In this section, I will not want to bother you with some medical terms use to describe abnormal growth in children. I will however like you to do the following exercise to get used to assessing the growth pattern of children the more.

You will need the knowledge you gather while doing. Exercise one of this unit to help you in this next exercise. So if you have not done that this is the time to do it.

3.4 Signs of Disorder in Growth Pattern in Children

We shall only describe 3 common growth disorders among children, and these are

Short Stature, Tall Stature and Obesity

Short stature: A child whose skeleton does not grow proper may have either short trunk (abdomen area) or short arm and leg. Such a child will grow shorter than his mate. This is

good to children to eat food items that contain necessary ingredients that will make their bones to develop well.

Tall stature: A child whose skeleton over grows may have too big trunk (abdomen area) and the arm and leg will also over grow, leading to tall stature. Food intake should be advised to be moderate.

Obesity: A child is said to be obese when the weight of the child is 20% more than the corresponding weight for his height. Obesity may be caused by over eating, over rotation and lack of activities. This is common between the age of 5 and 6 years in children. Obesity may however be due to hereditary factors.

Self-Assessment Exercise 2

1. Identify a set of about 10 children and take the following measurement on them, make table like below:

Age Group (years)	1 - 3			3 - 6				6 - 12			comma
Serial Number	1	2	3	4	5	6	7	8	9	10	
Male or Female											
Weight (kg)											
Height (cm)											
Head Circumference											
Comment on whether normal or not											

2. Make reference to your Biology textbook while you were in secondary school. If you do not keep such books again, you can get a secondary school student around you to borrow you his/her textbook.

Read the section on Growth and development.

4.0 Conclusion

There is an increasing demand for well qualified people to work in public centre, day care centre and schools for young children so as to take proper care of the children while their parents are at work. One way by which such adults, to whom the care of young children is entrusted is help them to be able to monitor the growth of the children. These adults taking care of children, especially in schools, are expected to act as parents, nurse, doctors, teachers, guardian, counselors and friends. To do this effectively, they need to know, among many other things, how to assess the growth of children, so that they can easily recognize a child that is not growing normally. Some of the things to look for that show whether or not a child is growing well have been discussed here.

5.0 Summary

In this unit, we have deliberated on the need for having a growth standard. This growth standard is to be used to assess whether or not a child is growing normally. The processes that we can take to assess whether a child is growing normally or abnormally were mentioned. We have also drawn our attention to growth charts that we can get in health centre or hospitals. Awe also learnt that some specific measurements like height, weight, circumference of the head, and chest are pointers to the growth pattern of the body. Some terms like short stature, tall stature and obesity were described as signs of abnormal growth.

In the next unit we go further by discussing Development in a more generalize form. It is believed that Development is always a follow up to growth in young children.

6.0 Self-Assessment Exercise

1. Why do we need to have a growth standard in this country?
2. Mention 3 things that can be measured to assess the growth rate of children.

7.0 References/Further Reading

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