

Philosophy of Education

What is Philosophy?

- The Word "Philosophy" is derived from two Greek words, "Philein" and "Sophias".
- "Philein" means to Love, to search for; and "Sophias", means "Wisdom".
- Philosophy is, therefore, a combination from the two Greek words cited above and literally means "Love of Wisdom", or "Search for Wisdom".
- Given the above, you will realize that Philosophers are Lovers of Wisdom, People who search for wisdom as they live in this world. Sometimes, wisdom is referred to as knowledge, so Philosophy has come to be associated with love of knowledge.
- Philosophers are people who are puzzled and wonder about many things in the world they live in. As a result of this, they ask themselves many questions with a hope of getting rational answers that will help them understand, and survive in the world, themselves being part of that world.
- Many Philosophers have argued, in fact, that Philosophy begins in wonder and wonder is the feeling of a Philosopher. What, however, is it to wonder?
- To wonder is to realize that there is something strange behind the things that we ordinarily perceive; something that needs MORE answers than what we ordinarily take for granted.
- For this reason, Philosophers take nothing for granted. They constantly try to look for answers particularly to the MEANING and SIGNIFICANCE of life.
- In a way also, Philosophers, through their questioning habit, admit that they are ignorant of some issues. By questioning, they want answers; they want to know because they know that they don't know.

It is this knowledge that makes them love or search for further knowledge.

- Basically, therefore, Philosophy is based on man's curiosity and wonder about the world we live in and consists in finding possible rational answers to many questions about its nature (world). It tries to rationally investigate certain fundamental problems with regards to the relationship between man and the world he lives in.

General Philosophy

- As a general Philosophy, this means that it is not the preserve of a few people. As Njoroge and Bennars (1986) put it, general Philosophy is and has always been the concern of all human beings for the simple reason that they are humans, questioning their humanity, the human condition, the human experience of life.
- Any person, who seriously and genuinely tries to come to terms with life in the sense of understanding it, does Philosophy at the general level.
- Done by all, though in different contexts, it includes what we can call "Philosophy of life", where different groups could be said to have a Philosophy of life – a set of thought out beliefs or ideas that guide one's life. For example, a student can have a Philosophy of life, and so is a farmer, a parent or even a political leader.
- Included in the wide world of Philosophy are National Philosophies such as "Nyayo Philosophy", "Ujamaa", and "Humanism" etc.
- From this we realize that general Philosophy can be both personal as well as collective in nature.
- Can we, however, say this of Technical or Professional Philosophy? We need to show this.

Technical Philosophy

- Different from the wide world of general Philosophy, Technical or Professional Philosophy is associated with a small world of

academic scholars who have undergone formal training. Philosophy, in this sense has a structure, a system of organized thought evidenced in a world of books, and scholarly writings.

- This Philosophy has a specific form of thought, has emerged from □Western Philosophy□ i.e. European in origin and characterized by specialization, a matter of experts.
- The student of Philosophy of Education need not become a professional Philosopher. As it has been argued, he only needs a general introduction to help him/her understand and appreciate the meaning and significance of Technical Philosophy as an Educator. The next lesson on the content of technical Philosophy should help.
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CONTENT OF TECHNICAL PHILOSOPHY

- There are four distinct areas or branches in Technical Philosophy. These are:
 1. LOGIC
 2. EPISTEMOLOGY
 3. AXIOLOGY
 4. METAPHYSISCS

Logic

- **Logic is the study of correct reasoning.** It studies how arguments are to be constructed and how fallacies can be detected and avoided. Why is this necessary?
- On many occasions where human beings discuss and argue, logical reasoning is abandoned and people draw wrong conclusions that are unwarranted. Logic helps us avoid such problems and is, therefore, an indispensable tool if only to show how correct arguments are made. But what are arguments?
- From a Philosophical standpoint, an argument is a set of statements one of which is a conclusion and the rest designated as premises. An example of an argument presented in a formal way is the following:

Dr. Nyanje is a 25 year old lady.

All ladies aged 25 years and above are married

Dr. Nyanje is a 25 year old married lady

- In logic, we generally have two types of arguments or reasoning: Deductive reasoning and inductive reasoning.
- Deductive reasoning is the type of reasoning where the conclusion is deduced from the premises. Given true premises, the conclusion necessarily follows from the premises.
- Inductive reasoning depends on the strengths of the premises. Strong premises give a strong conclusion while weak premises give rise to a weak conclusion. The conclusion is probabilistic in nature

- Consider the example below:
 - (1) Mr. Kobe is a kind person
 - (2) Mr. Kobe is a Kenyan
 - (3) Kenyans are kind people

An argument is **valid** when the conclusion is entailed by, or logically follows from, the premises. Accordingly, validity is a property of the argument's *form* and it does not matter what the premises and the conclusion actually say. In fact, a valid argument *need not* have true premises or a true conclusion.

Consider the following argument which is considered to be valid:

- (1) All dogs are birds
- (2) Poppy is a dog
- (3) (therefore) Poppy is a bird

Let us now consider the following three sentences:

- (1) All women are bipeds.
- (2) Helen is a woman.
- (3) (therefore) a bicycle is a biped.

In the example above, we have an argument in which the purported conclusion, line (3), does not follow from the premises at all. It is thus not a good argument since its conclusion does not follow from its premises. We call such arguments invalid.

- So much for logic at this moment. We now must discuss another branch of Philosophy □ Epistemology.

Epistemology

- As a branch of Philosophy, Epistemology forms part of the content of Technical Philosophy.

- Epistemology is referred to as the study of knowledge or Philosophical reflection on issues related to knowledge.
- The Epistemologist is interested in the "nature" of knowledge, asking questions such as "what is knowledge? What does it mean to say that "I know? How do I know that I know? Etc.
- These (questions) are seemingly simple, but very difficult to answer when one attempts them. Two schools of thought are usually associated with the "Philosophical study of knowledge. These are:
 1. RATIONALISM
 2. EMPIRICISM
- The Empiricist Zeros in on ones sense experience in matters of acquisition of knowledge. For him/her, all knowledge is derived from sense experience and that any learning cannot take place in the absence of our senses.
- Educationists in this school plan their curriculum with this in mind, where learners may/or are required to see, touch, hear, smell and possibly taste.
- The Rationalist on the other hand pays more attention to the part played by the intellect in the acquisition of knowledge. The point stressed is that, it is possible to acquire knowledge purely through the intellect since it is the source of all knowledge. And because teachers deal with epistemological (knowledge) issues, it is important that they be familiar with this branch. Next for discussion is axiology.

Axiology

A broad definition of axiology is that it is the Philosophical study of values. Values are, however, grouped into two categories:

1. Ethical values or moral values, hence ethics as a sub-set of axiology
2. Aesthetic values or non-moral values " hence Aesthetics as another sub-branch of axiology.

Ethics

- Also known as moral Philosophy, ethics studies moral values. This has to do with what is right or wrong in human relationships within a given society. The good or bad in human conduct is within the purview of Ethics
- Ethics also investigates the reasons why certain actions are universally considered good or bad, prescribed or forbidden.
- Ethics seeks to give an answer to the question whether there is something in the nature of an act that determines its rightness or wrongness or whether it comes from without. A common question asked at this level is, for example, what makes a right action right, or a wrong act wrong?
- In response to this question, we can make reference to Discuss here Teleological and deontological arguments or theories.
- In the study of ethics, deontological ethics approaches the question of right or wrong in terms of human actions by focusing on the motives and intentions of the human actor. Accordingly, deontological (duty-based) ethics are concerned with what people do, not with the consequences of their actions. On the other hand, teleological theories focus on the ends, results or the consequences the action finally brings about. Accordingly the rightness of an act is determined by its end in terms of whether it is acceptable or otherwise.

Aesthetics

- Is the study of artistic values and these are not moral in nature. In this area, we have issues such as the meaning of beauty, social cultural and political values.
- Aesthetics, to be precise, deals with norms according to which we judge the object of perception to be beautiful or ugly.
- A car, for example, is beautiful/good aesthetically but not morally so.

Basically, therefore, axiology is the reflection of values, and this particularly so, when people are no longer clear about what is valuable or worthwhile.

With regards to Educational links, we realize that education, as an

enterprise in any country is intricately associated with what is valuable. It would appear pointless to spend years in schools if what we are doing is of no value. What is valuable, however, may need insight before it can be adopted and this is where axiology comes in.

Metaphysics

- Metaphysics deals with "Being" as such. It is the study of what there is, of being. It enquires into the ultimate meaning of "being"
- Philosophers argue that both living and non-living have "Being" as a common element even though these "Beings" participate in "being" differently.
- The examination of the meaning of being belongs to that part of metaphysics referred to as ontology. However, from a general point of view, the study of "being" as such is what is referred to as metaphysics.

METHODS OF TECHNICAL PHILOSOPHY

Methods in Philosophy are various depending sometimes on the Philosophers perception. P. K. Wainaina in Sifuna et al (2006) basically talks of two methods of Philosophy he terms as;

1. Conceptual analysis method
2. Phenomenon analysis method

Njoroge and Bennars (1986) front for four methods based on four functions of Philosophy. In this Lesson, we shall from the critical function of philosophy

1. Critical/Socratic method- from the critical function of philosophy

2. Logical/rational method- from the rational function of philosophy
3. Reflective method- from the phenomenological function of philosophy
4. Speculative method- from the speculative function of philosophy

The Critical/Socratic Method

- The word "critical" is derived from the Greek work "krinein", which translates to "to judge".
- The word points to criticism, to evaluation. To evaluate implies questioning. To evaluate something one needs to ask questions, critical questions.
- The critical approach, it must be noted, is not negative or destructive in nature, but rather it is positive and constructive in nature aimed at liberating man from fanaticism, dogmatism and intolerance.
- As a historical fact, this method is associated with the Greek Philosopher "Socrates" hence referred to as the "Socratic Method".

The Logical/Rational Method

- The rational function of Philosophy gives birth to the rational or logical method in Philosophy. It stresses on logical reasoning that is very systematic. (Refer to the discussion on logic in our discussion on the branches of Philosophy in lesson two).
- As a method, it is based on clarity and is analytic in nature. To analyse is to break an issue into simpler parts for purposes of easy understanding. Analysis eventually aims at synthesis.
- The Philosopher using this method seeks to analyse concepts, statements and language in order to clarify and justify their meaning. This is the method referred to as conceptual analysis, one that enhances rationality of thought.

- The bottom line is that Education matters need to be approached very rationally and logically if we have to fully benefit from it.

The Reflective/Phenomenological Method

- Phenomenologists go for "Lived" or "ordinary" experiences. The argument is that through analysis of or reflection of our ordinary experiences, we are able to understand our own reality and our surroundings as conscious individuals.
- The method points further that living and experiencing things personally makes us know the world in a personal way.
- These experiences, we are aware, may be different from person to person, but discovering the underlying meaning and a deeper understanding must be the concern. What, however, are these life experiences?
- These experiences include those of joy, loving, pain, fear and even those of frustrations. These experiences, reflected upon in a concrete, existential way, may give an individual meaning and substance in human life.
- The implication of the above is that Philosophy starts from ordinary human experiences, emphasizing the idea that Philosophy or Philosophers are not detached from this world in their quest to find answers to life issues. This agrees with John Terry (1994) who argues that the experiences of growing, seeing, feeling, thinking and loving are common experiences that all people in all places have, and on which they build the Primary Philosophical notions. Philosophy, it is being suggested, derives its Primary notions from the common experiences of mankind which Santayana calls public experiences.

The Speculative Method

- The speculative function of Philosophy gives birth to the speculative method in Philosophy
- This is a method used to try to give answers to questions that do not seem to have simple answers. The question, for example, of death,

suffering and happiness invite in human beings not only the question of what happens but why it happens

Traditional answers have been offered mostly hinging on religion, but Philosophers want to go beyond religion to a rational explanation to such phenomena. It is in this realm that Philosophers, faced with these questions, get very cautious and rationally speculate, hence the name speculative method.

Philosophy of Education as an Educational Discipline

- To refer to a certain study as a discipline means a number of things. Such things may include, but not limited to, the fact that it is an area of knowledge.
- And as an area of knowledge, it would mean that it has a distinct content or set of concerns, distinct methods or approaches with which it studies and explains their concerns and that it has a particular language or set of concepts through which realities related to its nature or concerns can be easily rendered meaningful.
- Now questions about what characterizes an area of knowledge are certainly wider than can be handled under this section. For that reason, we shall put them on hold until such a time when we start exploring the whole area of Knowledge and the Curriculum.
- At the moment, we take note of the fact that, as a discipline (of education), philosophy of education must then be having its own distinctive approach to the study of issues within the field of education.
- As often happens, some disciplines of education, and especially those whose names start with a name of an academic discipline such as Economics, Psychology, Sociology and even History have something in common. They follow a distinctive approach in studying issues within or related to education which in the real sense is derived from the

academic discipline whose name is part of the name of that discipline of education in question.

This is to say that History of Education follows the approach of History, is Economics of Education with Economics and Sociology of education with sociology.

Development of Philosophy of Education

- Not much of the historical development of philosophy of education is accounted for. However, there seems to be a consensus that John Dewey (1859-1952) was one of the first thinkers to develop a systematic framework now called philosophy of education. He is also thought to be one of the first thinkers to use the phrase 'Philosophy of Education' to refer to an educational discipline in its own right. This does not mean, however, that John Dewey was the first philosopher to think about education.
- In the various education studies, we read of philosophers who lived long before Dewey and their ideas, which are nevertheless, philosophical and which are at the same time educational. Such philosophers include Plato, Aristotle, St. Augustine, Jean Jacques Rousseau, Erasmus, John Locke and many others. Much of the details concerning these thinkers have been left to historians of education and you may have encountered these thinkers in your study of History of education.
- It may appear that philosophy of education, contrary to what we are saying here, existed long before John Dewey. However, prior to 1900, the study of education as a distinct discipline or [educational discipline] for that matter did not exist the way we know it today. It was until 1900 that education became recognized as a distinct field of study with its own disciplines.

As such, the earlier attempts to study education including the contributions by the mentioned philosophers belong to what has now been referred to as 'The History of Educational Ideas'.

Nature of Philosophy of Education

- In the earlier sections, we have often made reference to the discipline of 'philosophy of education'. We have so far presented it as an educational discipline. We have also gone ahead to merely sketch its historical development given that details of this historical development are neither here nor there.
- However, one clear observation one can quickly make is that we have not made any attempt to address the question 'what is philosophy of education?'

This section therefore seeks to explain the basic meaning of this phrase besides locating it within the study of education and outlining its relevance to teacher training programmes.

The Place of Philosophy of Education within the Study of Education

- Even before making an attempt to define philosophy of education, it is important that we place it in its immediate context. We earlier on characterized philosophy of education as an educational discipline among other discipline of education such as Economics of Education, Sociology of Education, History of Education and even Educational Psychology.
- We should remember however that the disciplines mentioned here are not the only ones that constitute the study of education. There are many more. But many as they are, it would be important to find out if at all they fall into any categories of sorts and if they do, in which of these categories does philosophy of education fall?
- Turning our attention for a moment on the way educational studies are conducted, one discerns a kind of categorization in which

education is studied in at least two aspects. These are the practical courses and the foundational courses.

(a) Practical Courses

- The word courses, here, has been used as synonymous to educational discipline. Practical courses in educational studies are concerned with the development of skills necessary for practicing education.
- These are courses, or educational disciplines for that matter, that equip the teacher trainees with the practical skill they require to be effective in their teaching responsibilities.
- These include methodological courses such as lesson planning, the use of media and technology in teaching, tests and measurements, teaching, practice and even courses on motivation in education.
- The practical skills these educational disciplines impart into the teacher trainees are not only helpful in effective teaching but also in learning procedures and even evaluation techniques.

(b) Foundational Courses

- Unlike the practical courses, foundational courses are theoretical in nature. To state that the foundational courses are theoretical is not to denounce them but rather to imply that they enable us to justify educational practice.
- These courses constitute of framework within which what happens in the process of education can be explained and justified. The educational disciplines that fall under this category include History of Education, Sociology of Education and many more.
- The manner in which we have described philosophy and the little we have, so far, said about philosophy of education is enough to make us locate it within the foundational courses.

- It is therefore one of the educational disciplines that provide explanations or the underlying meanings of the things that we see happening as part of the process of education.
- The expression philosophy of education comprises of two terms which we have certainly come across before in separate and rather discrete contexts. However, we are now faced with the task of finding out what they mean as one segment or phrase for that matter.
- But even then, we cannot rule out the possibility of approaching this phrase by first looking at what each of the two words mean in isolation and move ahead to draw implications of what they would mean when treated as a phrase.
- In the meantime however, we may start thinking about this expression by examining the other ways in which the phrase "philosophy of" has been used in other contexts and what it means in those contexts.
- The expression "philosophy of" is generally used to refer to certain areas of specialization. Accordingly, we speak of philosophy of mathematics, philosophy of religion, philosophy of science, philosophy of law, philosophy of History, philosophy of Language and in our present case, philosophy of education.
- All these philosophies point to some particularized and differentiated forms of enquiry, appraisal and action. They point to specializations involving a concentration of philosophical thinking that is oriented to one specific area of life.
- In the earlier sections, we tried to locate philosophy of education within the study of the entire discipline of education. And we located it within the foundational courses, those which constitute a framework within which educational practices are explained.
- Sometimes, in carrying out these educational practices we encounter certain problems and challenges.
- Whenever this happens, we tend to inquire and so we readily get answers to these problems. Some of these answers, however,

originate from common sense. By common sense here we mean an individual expression of the public opinion.

- This therefore leads to a common sense outlook on educational matters. However, a common sense outlook on educational matters tends to give immediate solutions to problems.
- Now these solutions may not be very useful in formulating long-lasting educational policies. This is because such long lasting policies require rigorous yet careful and critical reflection and thinking before or in the process of formulation.
- Certainly, implied here is the need to reaffirm the distinctive place of human reason in the practice of education.
- Indeed reflection and thinking are activities associated with philosophy and hence, there is need for a philosophical outlook on educational issues. In so doing, we shall in a way be directing philosophical approaches and principles to educational issues and/or problems.
- When philosophical approaches and principles are directed to education, we talk of philosophy of education. It is in the same way that we also talk of, say, philosophy of religion and many more.
- In the light of the fact that the phrase 'philosophy of education' consists of two words: 'Philosophy' and 'education', Langford (1968) observes that philosophy of education is just philosophy but with an eye on the practices and problems of those concerned with education.
- Perhaps R.S Peters (1970) gives more insight to the expression philosophy of education when he observes that philosophy of education draws from the branches and methods of philosophy and brings together those segments that are relevant to the solutions of educational problems.
- This is to say that although the issues addressed are philosophical in nature, they are addressed relative to the way they occur in a specific

context which we often identify with the main activities of teaching and learning.

- For that reason, philosophy of education has been defined as **the application of philosophical principles and methods or approaches to issues in education**. It is **the philosophical probing not educational problems**. Its main purpose is to **discover and ascertain whether the rules and presuppositions that define the practice of education at a historical moment are authentic versions**.
- It is therefore **an inquiry into the distinctive form human reason takes in the practice of education, a task through which it seeks to bring about a better understanding of the theory and practice of education**.

Nature of Problems addressed by Philosophy of Education

- In the earlier sections we noted that the practice of education is confronted with its own kind of problems.
- But the study of education comprises of a number of educational disciplines and so, it is possible that each of these disciplines is effective at handling educational problems of a certain nature.
- Whereas we may not at this point explore the details of the nature of problems addressed by each of these disciplines, it is important at this point to highlight the kinds of problems that the discipline of philosophy of education addresses.
- In other words, the question one may find necessary to ask at this point is: what then are the peculiar problems that philosophy of education is best suited to address?
- It is perhaps important to begin by reminding ourselves what Langford said about Philosophy of education; that it is just philosophy but with an eye on the practices and problems of those concerned with education. Accordingly, as an area of study, philosophy of education targets certain specific problems.

Relevance of Philosophy of Education

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QUESTION



What do you think are the kinds of problems that philosophy of education seeks to address?



Relevance of Philosophy of Education

One inescapable question that logically arises from the foregoing discussion of the discipline of philosophy of education is the one concerning its relevance. Simply put, how important is it for a teacher to have knowledge of philosophy of education. In other words, does or can philosophy of education contribute towards giving direction to the practice of education? To this end, Olela (1988) summarizes this importance in the following way:

- It attempts to clarify the nature of problems which arise from the practice of education, the kinds of problems which education cannot by itself resolve.
- Its contribution to education is seen in the various branches of philosophy, thus theory of knowledge, theory of reality, theory of values.
- Historically, education and philosophy have shared the same sentiments; philosophers have always had something to say about education. Most education theorists were philosophers.
- According to John Dewy "Philosophy thus sustains the closest of culture with the succession of change in civilization" (Philosophy and civilization p.8). Any change in the philosophy of education is in fact, a change in the philosophy of education.
- Philosophy is concerned with both the practice and theory of education. It provides the needed assumptions that are behind attitudes and actions in education. Philosophy is indeed a guide to practice. Practice is manifested as an outlook of philosophy.

THE CONCEPT OF EDUCATION

Content

- In the common ways in which we think about this concept, we often relate it to activities of the teachers and students as they occur in a classroom or school situations. We think of it in terms of learning such subjects as English, Geography, History, mathematics and many

others. Sometimes we think of it in terms of the training that one undergoes to become a teacher.

- These are some of the ways in which we think about the term education. We may however, not go into the details of the various ways of thinking about education. Rather we shall concentrate on the philosophical thinking about education.
- We have earlier on spent enough time talking about philosophy and the philosophical manner of doing things. At this point in time, in talking about philosophical thinking about education, we have in mind the type of thinking that seeks to examine the deeper meaning of the concept of education. Therefore, this implies asking ourselves the question: what really is education?
- This question necessarily requires us to adopt procedures that are philosophical and which try to go beyond mere subjective aspects such as appearances, prejudices and feelings. And so, education being a concept, we shall proceed by way of conceptual analysis.

A Conceptual Analysis of Education

- In analyzing a concept, we aim at the underlying idea. So in this exercise, the main concern would be to reach the underlying idea in the term education. However, conceptual analysis can be quite involving.
- For that reason, we shall not concern ourselves here with the intricacies of this analysis but rather, follow the works of analytic philosophers of education. One such philosopher, who is also an educator, is Richard Stanley Peters.
- As explained earlier in the section dealing with philosophical methods, conceptual analysis involves a careful logical and systematic search for criteria or conditions that must be fulfilled if an activity is to be regarded as 'education' learning or even teaching.

- The basic questions therefore would be: what then are the criteria for defining the concept of education? Our discussion on the criteria of education will therefore centre on the analysis by R.S Peters as he outlined in his book Ethics and Education (1966).
- In this book, R.S Peters proposes three conditions which he considers necessary but individually not sufficient. Here again we encounter other terms: necessary and sufficient. It would then be important to examine what these terms mean in relation to the conditions or criteria of education.
- To R.S Peters, a necessary condition is one whose absence causes lack of occurrence of a phenomenon while a sufficient condition is one which if present, then an event may occur.
- Accordingly, for a process to be regarded as a process of education, the three conditions or requirements that must be fulfilled are that the process must:
 1. Transmit something worthwhile to the people.
 2. Transmit or involve some knowledge or understating.

Include some acceptable procedures or method of transmission of something worthwhile and understanding.

Reflections on R.S. Peters Conditions of Education

- A quick reflection on these conditions would give certain insights. Looking at the first condition, one realizes that it is normative in its demands, that is, it appears to be stating something regarding the nature of what is to be transmitted to the people.
- In effect it appears to demand that what is transmitted must be something of value, something good and something that is desired by the people engaged in the process or at least those who designed the process.
- In other words, a process of education must involve the transmission of aspects that are valued or cherished or held as standards, norms of the society in which this education is to be practiced.

- The second condition is taken to be the cognitive condition or criterion. It pertains to knowledge and understanding where the demand is that the process of education must result in some change in the people's cognitive orientation. The third appears to make reference to the methods of transmitting the worthwhile aspects and also knowledge and understanding. It is thus the demand for an appropriate methodology or procedure for that matter. And that is why it is also called procedural condition.
- At this point, many questions can be raised, for instance, one may ask: what appropriate methods are and what these appropriate methods that R.S. Peters talks of are.
- To this second question, those who have read and interpreted R.S. Peters such as Olela (1988) have argued that these are methods that exclude propaganda and similar practices.
- This is yet another evasive way of going about this question since Olela is not coming out clearly to declare what methods, he thinks, are these that R.S. Peters is calling appropriate.
- Reading through R.S Peters' explanation of this criterion, he at one point says that these are methods or procedures that draw from the willingness and voluntariness on the part of the learner.
- Once more, R. S Peters has chosen not to state what these methods are. It is certainly not easy to tell why he has chosen to do so. Whatever the case might be, this condition ends up frowning upon certain procedures that may be confusingly perceived of as part of education but does not state what the acceptable procedure or methodology, for that matter, ought to be.
- As stated earlier, conceptual analysis aims at establishing conditions which must be fulfilled if we were to talk of a certain concept, in this case education. Accordingly, the concept of education, according to R.S Peters, can be defined in terms of the three conditions or criteria of normative, cognitive and procedural.

- Thus we can say; **education is the process of transmission and assimilation of something worthwhile and also knowledge and understanding through some acceptable methodology.**
- Despite this seemingly fruitful effort, certain issues are still not clear regarding these conditions, leading to some difficulties regarding their definition of education as a clearly fitting and comprehensive one.
- For instance, assuming we consider these conditions as tenable then we must consider values as in the normative conditions as determinants since the notion of worthwhile is culture-bound and thus invites the relativity of our conceptions of education. Here we would have good reasons to want to know who set the criteria of what is 'worthwhile'. In such a case we may end up only talking in terms of a relative degree of being educated.
- The cognitive criterion does not make things any better either. For one may ask; how much knowledge does one need to have. All these are important questions and which make a precise definition very difficult to arrive at.
- In the light of this difficulty of arriving at a precise definition other educational philosophers have tended to extend their search for a more precise and comprehensive definition. They have therefore continued reflecting on this concept of education as put forward by R.S. Peters. One such attempt is by G. A. Bennaars and R.J. Njoroge in their book Philosophy and Education in Africa (1986) whose reflections have led to a new thinking that education should be understood as a multidimensional concept.
- By multidimensional the two meant that which comprises of many dimensions and that these dimensions are characterized by unity and plurality.
- Reading through their so called dimensions, one clear observation is that they have an additional aspect or criterion since beyond the three

conditions by R.S. Peters, they add a fourth condition: the creative dimension and so they talk of dimensions rather than conditions.

- As such, they talk of the normative dimension, the cognitive dimension, the procedural or dialogical dimension and the creative dimension. With regards to the creative dimension, the implied requirement is that a process of education must go beyond mere transmission (of values, norms, knowledge and understanding) to the liberation of the human person.
- In other words, education should raise the people's awareness to the level of enabling them overcome barriers they were not able to overcome before. It should therefore enhance the learners' potential and enable them emerge as creators in the world.

Who is an Educated Person

- Many of the philosophers of education such as R.S Peters have associated the aim of education with producing what he calls an 'educated person'.
- Accordingly, Njoroge and Bennaars' dimensions would imply that an educated person is someone who has assimilated something worthwhile, has acquired some knowledge and understanding and all these have led him or her to be a free and creative person in the society.

AIMS, GOALS AND OBJECTIVES OF EDUCATION

Aims of Education

- More often than not, we talk of aims of certain things or simply, aiming at certain things. We also sometimes ask our colleagues and friends what it is that they aim at in their various undertakings.
- Whenever we do this, we use the word aim almost as synonymous to a family of terms including purpose, intention, desired end and so forth.

Whereas this may give an idea of what an aim or aiming means, it is important to have a more focused examination of this term 'aim'.

- This is because even in the practice of education, it is such a basic term as seen even in its usage as in 'aims of education'.
- When stated as an action, aiming can be likened to a form of trying in which some difficulty is involved in the task and also a very real possibility of falling short of or not hitting the target.
- The concept of 'aims' therefore implies some suggestion of an objective that is not too near at hand or too easy to attain. That is, they are long-term targets.
- Seen in this way, it becomes easier to understand why aims are so typically associated with institutions such as clubs, political parties, education and many more in which members are to work towards achieving something of common good, that is, their actions and activities are to be seen as directed towards this overall objective (aim). The formulation of their aims therefore has an important social function of summoning them to their efforts in a specific direction.
- Taking education as an example of an institution with aims, a clear understanding of aims of education would therefore enable teachers to examine what they are doing, get their priorities straight and concentrate on them by discarding irrelevancies.
- In other words, education is never an activity just but rather is an institution whose activities seek to achieve some end in the long run.

General Features of the Concept of 'Aims'

- One way of trying to understand the concept of aim is by examining the features that characterize it. In this section therefore, we shall identify the main features associated with the concept of 'aim'.
 - (a) Refers to the actions or activities done by a person who has some intentions.
 - (b) Refer to actions which are instrumental in bringing about something else.

(c) Suggests the concentration of efforts towards an object that is not too close at hand

- It is, however, often considered odd to ask for the aim of an activity that we have ascertained that it is done for its own sake. With the above features in mind, we can understand aims in the following ways:
 - The signposts or plans of what education is intended to achieve.
 - The broad statement of intents or standards to be referred to in the process of education.
 - The ends that societies set for their educational systems to operate on.
 - Alternative word for goals, objects, and ends of education. Here the specific aims are called objectives and are usually specified in the curriculum, while the general aims are called goals that are long term and are only achieved as a matter of procedure.

Goals and Objectives of Education

Having specified the meaning and our usage of the term and concept of aim, there is need to also interrogate the other related concepts. These are the concepts of goals and objectives as often used in the study of education.

- Educational goals are seen as the ends that societies set for their educational systems to operate on.
- Educational objectives are often specified in curriculum in measurable terms.
- The goals are often defined for the school by the larger society as determined by the ideologies and priorities the larger society.

There are two basic categories of educational goals. These are:

- (i) Preparing the young for their adult roles (individual aim)

- (ii) (ii) Allocating the young within the role structure of the adult society (social/utilitarian aim).

Nature of Goals of Education

Goals of education can be understood in three broad ways:

(a) The instrumental goals:

To state that something is instrumental is to state that it is basically utilitarian. This means that it can be used to achieve another end. In our present case, we would talk of goals that deal with economic values.

(b) Expressive goals:

- Generally geared towards the ideals of the society. These may include but are not limited to unity, cohesiveness, equality, common identity and many more.

(c) Normative goals:

- These are goals dealing with the development of acceptable or moral/social standards, social beliefs and patterns of behavior.

It is however, important to note that these categories of goals are interrelated and are only separated due to the emphasis given to:

- The intrinsic aims as opposed to the extrinsic/ instrumental aims.
- The good of the individual- hence child-centeredness
- The good of the society- the economic and moral values- hence the social aims/ goals.

Accordingly, the great goal of education should be to develop the fullness of the individual possibilities in accordance with the general goal of a society.

VALUES AND EDUCATION

The Idea of values and Education

- Values are usually expressed in terms of norms or standards. Norms generally refer to regulations, the set limit, the marked □out road, or the boundary imposed to reach a determined goal.

- With reference to education, this explains why such norms or standards are found in the aims and goals of Education in any country. It is clear that, going by history of education, education is a process of developing and transmitting values and other social norms. So they are important for a society.
- Values can, therefore, be thought of in an ontological way as what is worthy and also as that which directs action and generates a principle of action. Such values are determined culturally, socially and sometimes, even historically.
- However, the question of what values are to be transmitted through education is very problematic. The answer to this has varied from place to place, the time frame involved, as well as the interpretation of what desirable qualities mean.
- Historically viewed, and from among societies in Africa, values that took centre stage were what Njoroge and Banners (1986) call survival values. They centre around man's basic needs in the form of food, drink, health and sex. Education was then tailored towards equipping the youth with skills to enable them manage with respect to those values.
- Despite the importance of the above values, man in traditional society had other important values which centred directly upon the quality of life. Such values include RESPECT, DIGNITY, MUTUAL HELP, RESPONSIBILITY as well as LAW AND ORDER. These are referred to as trans-survival values.
- Because of their importance, a substantial part of our curriculum ought to be devoted to the development of moral values. These offer social rules and regulations, aspects that make social life a success.
- If we closely examine other traditions in education, for example, one sees an emphasis on social and moral values or on a social ethic in general. Today, however, it is emerging that this concern with matters

moral years back, stands in sharp contrast to the lack of concern with moral values in modern education.

- There is, today, an overemphasis on modernization, where production of labour forces and skilled manpower takes centre stage. Promotion of economic interests has taken over. This leads to an education system which is, so to speak, amoral or neutral in character, leaving the current learners in a moral crisis.
- Viewed from a very critical point, the crisis in morality is manifested in many negative traits in our society today. The corruption that has engulfed the entire system of governance may be attributed to this moral crisis. The instigated tribal clashes and the loss of reverence to life, as is currently being witnessed, has links to this moral crisis. What conclusion then can we come up with regarding this crisis?
- For some of us, this crisis in morality emphasizes a point; that an education system will ignore moral values at the peril of the entire society. An overemphasis on economic development at the expense of moral development creates a situation where the envisaged economic development may not be realized because of corruption, for example. It is also evident that economic development goes hand in hand with moral development.

Sources of Moral Values

- There are basically three sources of moral values/standards. These are the divine or supernatural source. Second, we have the social sources and third we have the personal sources.
- The first source i.e. Divine or supernatural source consists of the law of God. This is expressed in the holy books. Examples include the 10 commandments of God within the Christian traditions.
- The social sources of values are located within the various social institutions e.g. the family, the community or the nation. These, again, vary from place to place and also from time to time.

- The personal source of morality includes human reason, which implies personal reflection. There is also the conscience.

ETHICS AND EDUCATION

- The term "ethics" is derived from the Greek word "ethos" meaning the established customs or conventions. The Latin equivalent of "ethos" is "mores" also referring to the customs of peoples. From this, we derive terms like "morality" moral etc.
- In regular usage, ethics refers to a set of standards by which a group of people regulates its behaviour or conduct. Given these standards, behaviour is said to be moral or ethical/or immoral.
- There is also the academic use of the term "ethics" where three meanings are distinguished. These are descriptive ethics, normative ethics and meta-ethics. (For a deeper analysis of these see Njoroge and Bennars (1986: 172 – 175).
- The point we wish to examine here is whether education is a moral enterprise. To do that, we need to look at the normative dimension of education.
- Given that education is a purposeful activity implying aims, goals and ideals, it must involve moral question of what is good, right etc. Education, therefore, is governed by ethics- referring to the philosophical study of moral values.
- The question that needs to be answered at this point is which moral standards should govern education? Should one be guided by divine law, human law or by ones conscience?
- Such questions are usually answered with reference to theories of moral obligation. They (theories of moral obligation) try to identify and justify the criteria of what is morally right, wrong, obligatory etc.

Theories of Moral Obligation

- Philosophers distinguish two sets of theories in relation to moral obligation. There are:

1. Teleological theories and

2. Deontological theories

- Teleological theories judge moral decisions depending on whether they will lead to consequences which are desirable or not desirable according to goals in mind. The general determinant of what is good or bad, right or wrong is the results or the consequences of the action you undertake. If the consequences are good, the action is right. If the consequences are bad, the action is wrong. The best example of a teleological theory is "utilitarianism" by J.S. Mill. For Mill, an action is right if the consequences of an act promote the greatest happiness for the greatest number of people. (See Frankena (1973) For further reading on teleological theories

Deontological theories, on other hand, base their rightness not on consequences but on the other issues. For example, they can base the rightness or wrongness of an action on the intention or motive. If the motive is good, then the action is right regardless of the nature of the consequences. Sometimes also, the rightness or wrongness of an action is based on principles. For example, the kind of deontology associated with I. Kant is based on the principle of duty. An action is right as long it is done from the perspective of duty.

- Both teleological and deontological theories have sub-division. For example, in teleological theories, we have act-teleological and in deontological theories we have act-deontological theories.
- The above theories are a guide to judgment in matters of what is good or bad, right or wrong and can be useful guides in making educational choices. When you choose values for example in society, do you choose them teleologically or deontologically? What is desirable or not for an educational enterprise is still problematic, but the message being sent out is that to come up with such values that are either right or wrong, a philosophical approach is necessary; an approach based on critical questioning, analysis and clarity of issues.

- How learners are approached in learning these values varies. Some are subjected to rules and regulations both in schools and in homes as part of their society. Sometimes justifications are given as to why certain actions are either right or wrong. In schools, for example, certain subjects are used to teach certain values. All in all, the society has to be involved if the effort is to succeed.

THE CONCEPT OF KNOWLEDGE

- Just like other things such as book, pen or ball, the word knowledge grammatically functions as a name of something. Such words as book, pen and ball constitute a category of words that refer to things in order to say something about them or simply to name them. However, more reflection on the term knowledge reveals a difference in its nature as compared to the others, which refer to concrete entities.
- Knowledge, though a noun that refers to something, the referent here comes out, not as a concrete entity as in the case of ball or pen, book, but an abstract one. Knowledge as a "thing" therefore is not quite the same thing as, say, a house or a table.
- Words are, however, not only understood from the grammatical categories to which they belong, but also from the manner in which they are used. In this case, it would be attractive to also try and examine, with an aim of understanding, the use or meaning we assign the word knowledge as seen from the use to which we put its verb form "know".

Consider the following sentences:

(1) We know that light travels in a straight line.

(2) I know how to drive a lorry

- In sentence, we would possibly be referring to a group of knowers who have assimilated a certain property about light, that is, it (light) travels

in a straight line. A relationship therefore obtains between the *We* and a property of light, that is, it travels in straight line.

- Seen from the structure of the sentence, there is a relationship between the *we* and the particular property introduced by the word *know* hence a relationship that involves the act of knowing. In this kind of arrangement therefore, it would follow that the *We* is a group of knowers.
- In sentence 2, there is the *I* who is making a certain claim about the act of driving. The nature of the claim about the act of driving is introduced by the word *know*. Driving also being a happening that involves a series of actions that constitute a certain procedure, the knower in this case would appear to be saying that he/she has grasped and assimilated this series of actions that constitute the procedure for driving leading to his/her ability to cause the mechanical object, hereby referred to as a lorry, move from point A to point B.
- As such, he/she has a cognitive or mental grasp of the series of the actions that constitute the procedure of bringing about the act of driving. It is however, also possible that the knower in question may only have assimilated these procedures and has them as part of his/her mental content and not necessarily being able to apply them but knows them as facts.
- This appears to introduce a certain dichotomy of knowledge, that is, propositional knowledge (knowledge that) and practical knowledge (knowledge how). This dichotomy may however not be pursued right away in this section.
- In both of these examples, the subjects, that is, *We* and *I* are the sorts of subjects to whom it would make sense to attribute knowledge of the property of light as expressed in sentence 1 or the act of driving in sentence 2. It is in this way that they are considered as knowers, for they are thought of as having the knowledge in question.

- It would however, at this stage, appear to be pretty early to assume that whatever claims the knowers readily make constitute knowledge since some claims could be mistaken or misguided or simply, mere beliefs that lack sufficient grounds.
- There is therefore a glaring indication that the claims we, as knowers, make are in fact expressions of our beliefs. Along the same line, it appears that beliefs are not equivalent to knowledge but rather constitute an essential part or stage in the process of knowing.

Consider the following claim:

In know the capital city of Kenya is Nairobi but I do not quite believe it.

- In such a situation the person putting across this claim would be dismissed as one who does not really have knowledge of Kenya's capital city. Given such a situation, knowing posits as a process, which necessarily involves believing.
- However, it is appropriate to remember here that it is not always that beliefs or all that is believed expressly forms the content of knowledge since we have earlier stated that beliefs can be mistaken. For instance, at a certain historical moment, it was strongly believed that the earth is round.
- Speaking from a modern scientific standpoint, such a belief would be seen as a mistaken one and as such it would definitely not be considered a constituent or component of knowledge.
- At certain times, the concept of knowledge has commonly been used to refer to a wide range of things, including familiarity with things, places, persons and subjects, competence in a variety of learned performances and even possession of claims held to be truthful.
- For instance, if a student in a mathematics class exhibits competence in applying a certain mathematical procedure or formula in solving a variety of related sums, then we are likely to think of this student as one who knows mathematics.

- Seen in this way, knowing would be said to be fundamentally associated with the notion of understanding that leads to one being in control of a situation. The student in the mathematics class can therefore be said to have an understanding of the ways in which mathematical principles can be interrelated and manipulated to arrive at the hidden truth responsible for a given mathematical problem.
- To know therefore would necessarily involve some form of awareness or understanding of something or a situation.
- Along the same line of thought, to describe someone as knowing would also appear to be a way of appraising or approving the person for having successfully gone through certain processes that have led him/her to the kind of competence or awareness exhibited.
- Perhaps we need, at this point to pause for a while and address ourselves to the pertinent question; what then does knowing entail? Put in another way; when can one confidently claim to know something? It is, perhaps, after addressing such a question that one would comfortably point towards the sorts of things the process of knowing shall have been found to entail as basically those, which constitute the concept of knowledge. It is until then that we will be able to define the concept of knowledge in terms of these sorts of things.
- These sorts of things in whose terms, we try to understanding and defining the concept of knowledge, constitute what has popularly been referred to as conditions of knowledge.

Condition of Knowledge

- While we have not even defined knowledge, as one reflects upon the foregoing discussion, he/she is led to feel that there are certain requirements that should be met by a claim before it is taken to be knowledge.
- So far we have argued that one has to begin by believing a certain claim before we see him/her as having knowledge of that particular

claim or simply knowing it. In this way, belief posits as one requirement that a claim has to meet before it can qualify as worthy of being assimilated by knowers as knowledge. In any case, once one denies a proposition the attribute of belief then other knowers in quest for knowledge of that particular proposition the attribute of belief then other knowers in quest for knowledge of that particular proposition or claim become hesitant to assimilate it from him/her.

- This therefore implies that belief is a vital requirement or condition for the generation and the subsequent existence of knowledge.

(a) Belief Condition

- Belief is a mental or psychological state of conviction. It is a state where one is psychologically convicted that something is the case. However, this conviction, though held by the person, is subject to proof. In this regard, when one says X knows that spirits exist; it then appears that X has certain beliefs concerning the existence of spirits. Beliefs therefore form a starting point towards knowledge.
- More often, it becomes a contradiction to claim that you know X and at the same time deny this claim an element of belief. Rather, we believe first before we claim to know or see the claim as worthy of knowing (knowledge). For instance, consider the claim; I know that Kenyatta University is in Kenya but I do not believe it. Such a claim lacks the belief element and as such, it may not be assimilated as part of its producer's cognitive content (knowledge).
- However, as we have noted earlier, it is not always that all our beliefs are eventually assimilated to become part of our knowledge since sometimes certain beliefs can be mistaken.
- Arising from such an argument is the fact that beliefs can only be assimilated to become part of our knowledge if they are regarded as true. This is because merely believing is never sufficient for knowing something though a necessary condition.

- In this way, for one's claim to become an intrinsic element of knowledge the person needs to be aware of having entertained the claim as truthful. In this way, truth comes out as another one of the conditions that have to be satisfied by a claim contesting for the status of knowledge.

(b) Truth Condition

- Following from the above discussion of the belief condition, one thing that comes out clearly is that beliefs which are not true are not elements of knowledge.
- In other words if one is mistaken in believing something, then we say that he/she does not know. Indeed, when beliefs do not survive tests of truth, they are not taken as elements of knowledge.
- However, it appears easier to assert that beliefs can be truthful or mistaken than it would be for instance, to state what it means by a claim or a belief being true or false.
- In other words, one may ask; when is something described as true? Is it when there are adequate reasons for believing it to be the way it has been stated or just when we cannot find any other reasons to falsify it? Simply put, what does it entail to ascertain the truth in a given claim?
- Certainly, it appears convincing that before we accept any claim, proposition or belief as worthy of knowing we tend to assess it or make judgments either consciously or unconsciously.
- This assessment is perhaps based on the need for a firm basis upon which these claims can be comprehended.
- Before getting into the analysis of what it takes for claims or beliefs to be said to be true, it is important to try and understand the notion of truth.
- In its usage the term truth confers a kind of quality on a proposition. This quality is such that, that which is claimed in the proposition or belief, that is, that which is to be known is in fact the case.

- Within this understanding, it would appear logically impossible for anyone to make a proposition or claim that has been proven, false.
- In which case, knowledge claims are defensible, and at the same time, often dismissed as not genuine contents of knowledge, particularly when it is found out that the truth runs counter to such claims.
- There are, however, those who argue that truth, as a condition is too stringent. Such people often remark that since every proposition is subject to correction, it therefore follows that knowing is not tenable that is, we can know nothing. However, some propositions are certainly correct.
- Perhaps one important aspect for this argument would be the implicit caution that there is need for us as knowers to be cautious about what we claim to know.
- This therefore introduces another condition; that which addresses the question of the evidence that forms the grounds of the evidence that forms the grounds of the truthfulness of a claim.
- We shall examine the evidence condition in more details shortly after examining the theories of truth.

Theories of Truth

- In the introduction of the truth condition we had started reflecting on what it takes to qualify a claim or a belief to be true. Also, following the foregoing argument, it appears that knowing is not compatible with being wrong or mistaken.

Consider the following example;

I know you name is peter, but I may be mistaken

- In this situation, it would appear more meaningful to say I believe your name is peter but I may be mistaken. This is all because knowledge appears to presuppose the truth of a given belief or claim.

- In so trying to go about the task of ascertaining the truth in a claim, three theories have been put forward thus correspondence theory, coherence theory and pragmatic theory.

(i) *The Correspondence theory*

- When two objects have a direct mapping onto one another, we say they are corresponding.
- To correspond would then be rightly described as being in a direct relationship with another thing. For instance, when one makes the claims:
 1. *Kenya is located on the eastern part of Africa*
 2. *It is raining in Kisumu today*
 3. *There is a snake in that football pitch*
- One may be interested in pursuing these claims. Taking an example of the first claim, one would proceed to check it up from a map.
- When this happens, the person would certainly be checking to see whether the claim is in direct relationship with the presentation on the map. If he/she finds it to be so, then we say that the claim corresponds to the reality or fact. In this way, we would begin to acknowledge the claim as truthful.
- In any case, supposing the person, on checking on the map, located Kenya within the western region of Africa then the person would certainly not regard the claim as true.
- The other two claims can also be ascertained using the same procedure of checking their correspondence with the real states of affairs. In other words, the truth in them can be ascertained through observation of the real states of affairs. According to the correspondence theory, truth is a property or character of belief or claim to the effect that the belief or claim corresponds to reality or facts.

- In this way, a belief or proposition is true if and only when it corresponds to reality or facts.
- This theory appears to be based on the assumption that human beings are able to pay attention to physical objects and confirm their independent existence. Under such circumstances therefore, the test of truth would then appear to be based on whether or not a belief corresponds to the real or the fact or simply the objective state of things as may be confirmed by our senses.
- Seen in this way therefore, knowledge would be taken to be true belief where truth means representing the object as real Knowledge is therefore a function of the correspondence of objective states of affairs to claims, propositions or beliefs.

(ii) *Coherence theory*

- The verb 'cohere' has the implications of getting into finer agreement or links with something or someone. In physics for instance, we talk of cohesion as forces of attraction between molecules of the same kind.
- In this way, the molecules say, of water, get into some finer links with each other to the extent of filling up any observable separatedness or boundaries between them. In a way, throughout the agreement or linkage in question, there is some consistency running across.
- According to the coherence theory of truth, beliefs or propositions are true to the effect that they are consistent with others already confirmed or known to be true. Consider the following propositions:

1. *Since $3+3 = 6$ then $6-3=3$*

2. *I am older than my father*

- In the first proposition, it appears to have been confirmed and known that three added to three gives us six and it is within the same line of argument that three subtracted from six would give us three.

- This second operation involving subtraction is not necessarily the same as that of addition but rather is consistent with it. It is this logical strand that connects the two expressions that propound the truth of the expression $6-3=3$ in such a way that, once we accept the first proposition of $3+3=6$ and assimilate it as truthful then the proposition $6-3=3$ logically follows from the first one since they are consistent and thus truthful.
- Presented in this manner therefore, truth according to this theory becomes a property of a proposition to the effect that the proposition is consistent with others already confirmed and known to be true.
- As such, the test for truth would certainly go beyond mere correspondence to consistency. The coherence theory of truth however assumes that beliefs or propositions evolve or are constructed in such a way that culminates in logical order. In other words, the theory presents the view that beliefs or propositions are related to each other by links of logical implications. Seen in this way, the test of truth does not therefore rely on correspondence but consistency.

(iii) *Pragmatic theory*

- To describe something, say, an idea, as pragmatic is basically to imply that the idea is workable, practical or has some practical consequences. For that matter, the pragmatic theory of truth states that beliefs or propositions are true to the effect that they have practical consequences or simply, they are useful in predicting events or facilitating inquiry.
- Such propositions would include theories which are not yet proven as laws. Such theoretical positions are taken for granted in inquiry and often facilitate successful prediction of events.
- A good example of such a theory would be Darwin's theory of evolution whose truth is to be reckoned in terms of how offsprings of

animals and even plants would possess certain traits as prescribed by the theory.

- In general therefore, the truth of a proposition can be established by application of the theories discussed above. However, it is unnecessary to apply all the three theories to one particular situation but rather, the nature of the proposition would call for a certain theory. For instance, a proposition regarding empirical or observable situations would necessarily call for the correspondence theory while a theoretical claim may call for a truth of a proposition in certain circumstances unless evidence is supplied.
- This dependence of proposition on evidence or justification, so as to be assimilated as intrinsic elements of knowledge, brings us to the third and perhaps, the last conditions of knowledge, thus the evidence or justification condition.

(c) Evidence or Justification condition

- It has already been mentioned that knowers would require a substantive amount of evidence for full conviction. In other words, it appears that the full conviction of a knower depends on the extent to which the proposition is justified or backed by evidence.
- In this way, evidence or justification comes out as another of the conditions that a proposition has to satisfy if it has to be assimilated as knowledge.
- True beliefs propositions must be supported by adequate evidence if they are to survive the test of validity and subsequently qualify as contents of knowledge.
- Evidence refers to the grounds reasons or the justification that one offers to support his/her claim for knowledge. For that matter, the evidence given must be adequate and relevant, that is, it must be substantive and consistent with the subject matter in question.

- There is therefore a way in which beliefs or proposition can be classified depending on the nature of evidence used to justify them.

Definition of Knowledge

- In the foregoing discussion, we have been examining the concept of knowing, in terms of what it entails to know. This has been done as a means towards the understanding of the concept of knowledge.
- So far, three conditions have been identified and discussed, thus, belief condition. These are truth condition and the evidence or justification condition. As already mentioned at the onset of the examination of these conditions, knowledge would therefore be defined in terms of these conditions.
- At this point therefore it is time enough to assert that we can define knowledge in terms of beliefs, truth and evidence. We thus say:

X knows P if X believes that P is the case and X has adequate and relevant evidence (reasons or grounds) to believe P as true.

- For that matter, for a claim to be assimilated as knowledge, it must be true, it must be believed to be true and the knower must have adequate and relevant grounds for believing it to be true.
- For instance, taking an example of a claim such as it is raining in Nairobi today; for this claim to be knowledge it must indeed be raining, the knower must believe that it is raining and must have adequate and relevant grounds for this belief. The grounds would certainly include things like; I can see the rain falling; I can feel the wetness etc.
- Taking knowledge to be an expression of what has been described above; it would then be rightly defined as a **justified true belief**.

Knowledge and Education

- Knowledge in educational contexts is generally seen as marking the whole content of our intellectual heritage, which education is concerned to pass onto succeeding generations.
- In the previous section, a philosophical understanding of the concept of knowledge was developed, the process of which three conditions were examined. These are the conditions, which any claim contesting for the status of knowledge has to satisfy.
- Implicit in this approach to the concept of knowledge is the fact that when passing this knowledge to the learners, recognition has to be ensured for all these conditions.
- However, studies have shown that there has always been a tendency, in systems of education, to cater for one condition, mainly the belief condition, at the expense of the other two. This has always been attributed the three main factors of content, time and ability.
- Done in this way, a situation is created where students appear to believe in the word of their teacher and that of the textbooks, without any question.
- While in cognitive terms education involves inducing beliefs in the learners, the induction certainly needs to be done in such a way that it results in the individual's change of consciousness as a form of transformation.
- Education would thus be an active process that involves the transformation of the learner's cognition. However, done in such a passive manner as earlier on mentioned, learning becomes a process of conditioning thus through the cognitive dimensions not adequately accounted for.
- In addition, such as approach would certainly lead learners to acquiring the ideas being taught without internalizing them fully.

• **EMPIRICISM AND EDUCATION**

Empiricism as a theory of Knowledge

- The term empiricism comes from the word *Empirical* which means observable.
- As a theory of knowledge it is the view that knowledge is acquired through sensory experience/contact. It is an epistemological view that sensory experience is the fundamental source of knowledge.
- Senses, in this case, are the empirical facilities through which the mind interacts with the environment. Accordingly, if senses are negated in an experiential encounter within our environment, then knowledge acquisition becomes almost impossible.
- In justifying this theory, empiricism relies heavily on sciences to explain how knowledge finds its way into human cognitive life as an experience.
- As a theory of knowledge, empiricism assumes that objects in the environment have the capacity of causing impressions in human beings which are processed to become contents of human knowledge. This has been argued to be giving the impression that knowledge is outside the knower and the mind only acts as storage.
- The theory also asserts that human knowledge is verified through observation or experiment. The word observation as used here is expanded in its meaning not just to refer to visual experiences but also experiences by other senses such as hearing, tasting, feeling and smelling.
- It is in this sense that empiricists argue that in the absence of senses, knowledge cannot be acquired. This view therefore, generally argues that, the environment is the foundation of human knowledge; and without objects in our environment, our knowledge would be limited.
- In the same way, this would imply that if the environment is rich with objects, then knowledge is also enriched.

Empiricism Assumptions and their Influence on the Practice of Education

Empiricist ideas have been taken up by educational practitioners and as such, they influence the way in which the activities that make up the process of education are carried out. Here are some of the ways in which the practice of education can be said to have been influenced by empiricists' views:

- Children are born with an empty mind (*tabula rasa*) and as they grow feeling the world around, making observation, sensory experience feeds them with concepts and they begin to acquire and validate knowledge.
- Empiricism appears to locate knowledge outside or external to the knower. Therefore, if knowledge is to be understood within such a model then the overriding attribute of the school curriculum would be that comprising of facts, principles and theories to be transferred into the learners.
- Still within the same model, teaching and learning would then be a process of assimilating these facts and principles and as such, emphasize methodologies of teaching and learning that favour memorization, conditioning and programmed learning.
- Empiricism justifies the presence of science subjects, especially physical sciences as the core curriculum.
- Examples of empiricist manifestations in various levels of education include the following:
 - In pre-school all the way to lower primary level we find a lot of objects within the learning environment for children to manipulate using their senses thus maximizing on knowledge acquisition.
 - Even in primary school, a lot of learning emphasizes observation especially in science lessons.
 - At tertiary levels of learning, we still find observation being emphasized especially in empirical sciences and even in

social science research as a basis of knowledge development and acquisition.

- Still at both the secondary and tertiary levels in Kenya you find a special emphasis on science and technology subjects thereby emphasizing on the empiricist foundations of knowledge.

RATIONALISM AND EDUCATION

Rationalism as a theory of Knowledge

- As earlier noted, in order to be accepted as knowledge, beliefs often ought to be justifiable. This is in line with the earlier definition of knowledge as a *justified true belief*.
- It should however be noted that there are at least three ways in which truth can be ascertained i.e. by, correspondence (agreement between existing situation/fact and our idea/claim, by coherence (agreement between two ideas) and by pragmatism (agreement between idea or claim and its practicability).
- In ascertaining truth by coherence, one does not only rely on sensory experience to ascertain the truth of a claim but mainly relies on ability to establish the logical connectedness between the ideas in question. It is hence a rational exercise.
- For that reason, there appears to be some kind of knowledge that is not necessarily based on sensory data i.e. rational knowledge. Accordingly, reason takes a central role in the way human beings acquire knowledge.
- Those who propound this view are referred to as rationalists.
- The term rationalism comes from the Greek ratio meaning reason or thinking.
- Rationalism is therefore the view or theory that **reason is the primary source of human knowledge**.

- In other words, rationalists maintain that the source of the human knowledge is the human mind and not the experience out there brought to us by the senses.
- Accordingly, knowledge is also verified through rational deduction.
- The strength of this view draws from an obvious observation that if reason is nullified in one's experience, then it may be difficult to make sense of that experience. For example:

- Reason is often used to correct mistakes made in sensory perception, that is, reason prepares a context within which reality is perceived by the senses in a way that the effects of illusions are eventually corrected. [eg. Mirage, reflection, perspective, horizon e.t.c]
- Reason is central in the interpretation process in which sensory data is rendered meaningful and intelligible, for instance, consider the expression:

$$5+7=12$$

- Here, the plus symbol (+) is a symbol (an idea) which is a mental construction. The meaning attached to the symbol originates from the mind, that is, the mind interprets it to mean "add or put together" and that is why the answer is 12. In the same way, concepts such as God may not exist in the physical world but in our mind.
- Interpretation is a mental or a rational process and as such, the mind is always active in the process of knowledge construction.
- Accordingly, reason creates a meaningful order even in sensory experience. It achieves this by constructing structures within which data received from senses is interpreted, recognized, explained and formalized.

- Beliefs in this case become valid data of experience only after appropriate interpretation has taken place.
- In this, sense, education becomes a rational experience, that is, a process of learning to reason, to think, to understand and to see things in a meaningful way.
- If in the course of education, learners are not provided with opportunities for exercising their rational faculties, then knowledge acquisition is limited and the education process is clearly faulty.

Influence of Rationalism on the Practice of Education

Knowledge acquisition understood from the rationalist point of view would imply an education that:

- Emphasizes the active role of the mind/reason/intellect in knowledge acquisition-thus teaching methods that enhance the learners' reasoning abilities with discussion and evaluation of certain pieces of information.
- Demonstrates the need to acknowledge innate capacities in the acquisition and production of human knowledge. This is done by use of mental exercises that seek to develop such capacities that are innate in knowledge construction and acquisition.
- Justifies the presence of subjects like mathematics and liberal Arts in the school curriculum.

FORMS OF KNOWLEDGE AND THE CURRICULUM

The Notion of a form of Knowledge

- The form that knowledge takes depends partly on the nature of realities one is paying attention to at any point in time. For instance, numerical reality calls for a mathematical understanding; physical realities call for scientific understanding while religious realities are to be understood in religious terms. At the same time, a given reality may have different facets to it.

- For instance, HIV/AIDS reality has a statistical dimension which can be understood when organized in numerical/mathematical terms, an epidemiological dimension that can be understood from a scientific point of view and a developmental trend that can be well understood within a historical framework of time and event.
- This is to say that science, History and Mathematics are different ways in which reality can be understood and explained. They are therefore examples of forms of knowledge.
- There are different forms of knowledge and understanding each of which constitutes a frame of mind.
- In other words, there are various ways of explaining and understanding realities or phenomena. Consider for instance, the phenomenon of rubber production.
- If a rubber tree does not yield latex, the biologist would blame sapling, the geologist blames the soil, the contractor blames the unskilled laborer while the superstitious owner says it is fighting back at being controlled.
- In such a situation, biology, Geology, Technology (science) and even superstition may be seen as the various ways in which the reality of rubber production can be understood and explained. They are conceptual frames of mind.
- There are different forms of knowledge and understanding each of which constitutes a frame of mind. In other words, there are various ways of explaining and understanding realities or phenomena. Consider for instance, the phenomenon of rubber production.

Examples of Forms of Knowledge

In his book, Human Knowledge and the curriculum (1974) Paul Hirst gives seven forms:

1. Logic and Mathematics
2. Physical Sciences (physical, chemistry)
3. Human sciences (History,, Geography, Literature)

4. Aesthetics (fine and visual arts)
5. Ethics/Mortality
6. Religion

7.

Philosophy

Nature of Forms of Knowledge

- A form of knowledge can be distinguished from the others by a number of aspects that include concepts validation/truth test, method and logical structure.

(a) Concepts

- Each form of knowledge has terms peculiar to it. For instance, the term *gravity* is peculiar to physics, *trigonometry* to mathematics, and *photosynthesis* to biology while *phrase* is peculiar to linguistics. Whenever used appropriately, these terms are readily rendered meaningful but when used elsewhere their meaning is inferred from its usage in the form in which it first appeared.

(b) Validation/Trust test

- Each form of knowledge has statements and experiences whose truth is testable by particular criteria. For instance, the correctness of a sentence is tested against certain grammatical rules and not against any scientific experiment or mathematical formula.

(c) Method

- Any given form of knowledge has ways and techniques of exploring experience, investigating realities within its scope and thereby developing that form of knowledge. Science for instance, has its own method that involves experimentation, observation, deduction and conclusion.

d) Logical Structure

- A form of knowledge displays some kind of internal consistency. This is the interrelationship of ideas within a form of knowledge between topics, sub-topics and concepts such that they are not distinct entities but interrelated in such a way that certain topics are built on certain concepts in that form of knowledge. For example, in elementary science, you learn about "Matter" and then later you learn about "Molecules" whose understanding builds on the knowledge of the topic on Matter and even later the topic "Atomic structure" whose understanding will to some extent rely on the topic or concept of molecules.

Why Teach Various Disciplines or Subjects

- As already mentioned a form of knowledge and understanding refers to the distinct way in which human experience has been organized, structured and validated in a meaningful and intelligible way.
- Following from this view of knowledge, to acquire knowledge is therefore not merely to acquire facts but also to learn to see things and experience working in a meaningful and intelligible way. For that reason, a curriculum would therefore be justified to have the different subjects since experience or reality is understood, organized and structured differently.
- Such a multifaceted conception or view of the curriculum enables reality to be studied and understood from a variety of perspectives. This ensures a comprehensive view of reality.