

Epistemology in Education: Implication for the Nigerian System

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Abstract

This paper examines epistemology as a branch of philosophy that concerns itself with the study of the nature, origin and validity of human knowledge as a main constituent in the process of education. The various sources of knowledge are examined in relation to their implications to the process of educating. The paper further ponders on the often misconception of knowledge as education and highlighted knowledge as an aspect of education which could be put to positive developmental use only when other essential aspects of education are properly employed. It concludes by assessing how knowledge and education have affected the development and relevance of the Nigerian educational system.

Introduction

Epistemology is a branch of philosophy that examines the nature, origin and limits of human knowledge. It is fundamental not only to philosophy but also to education whose main business is the transmission and impartation of knowledge. Knowledge is generally linked to intellectual development, acquisition of human skills and to a large extent, the development of appropriate value system. This constitutes the main essence of the enterprise of education as such it is quite necessary to ascertain the essence of knowledge, its nature and how best it could be used as the main constituent of the process of education. One main purpose of the examination of the nature of knowledge by philosophers of all ages has been to enquire into the original, certainty and extent of human knowledge. The extent of knowledge, according to White (1982) does not imply how much we actually know but how much we can know. And this is a question whose answer depends on what kind of thing knowledge is.

The Concept of Knowledge

Theories and concepts of knowledge have been developed as a result of diversified opinions of epistemologists. So, hardly do we have a universally acceptable definition of the concept of knowledge. However, considerable efforts have been made to distinguish knowledge from other cognitive notions like belief, understanding, perception, sensation, truth and reason in an attempt to understand the concept of knowledge and acknowledge their inter-relationships. This is expected to lead to the establishment of a common thread that runs through the different activities that are involved in knowing like types, forms, sources, theories and criteria of knowledge.

From the times of the ancient Greeks, the significance of knowledge for the development of the mind and the relationship between knowledge and reality have been stressed. To search for and be knowledgeable is seen as living the good life. (Omatseye, 2004). To Plato (Sanker & Sanker, 1988), knowledge is in-born. It will need a well organized educational system to draw it out. So, a man with little or no knowledge is living in a 'world of shadows'. The process of knowing is not derived from experience or through the senses *per se*. The basis of knowledge is ideas which belong to a 'world of forms', a conglomeration of mental and spiritual entities which are adequately represented in the physical world. Therefore, knowing is operating in a world of ideas.

Rene Descartes (1970) in his search for certainty devised a method of systematically doubting everything he thought he knows until he could reach a conclusion where he cannot doubt anymore. Knowledge should be firmly rested on truth that cannot be doubted. The standard of this truth according to epistemologists is such that it is logically impossible that it could be logically faulted in anyway. By progression, this type of knowledge becomes very entrenched into a state of permanence. In pursuance of this, Immanuel Kant in his theory of knowledge, held that knowledge develops to a certain stage that it becomes a priori, whereby objects of knowledge becomes essentially objective, unchanging in time and place, becoming immune to change thereby making transcendental demands on us.

However, analytic philosophers reject this metaphysical orientation of Kant. In contrast, Hirst (1975) deposed that man is always evolving within his environment which brings about change. Even the notion of reason and objectivity are also subject to change, therefore, nothing including knowledge can be fixed eternally. In a sense, knowledge is society based and evolving.

Bamisaiye (1989) conceptualized knowledge as 'recognition i.e. a repetition of cognitive awareness' where recognition is a reoccurrence of the primary occurrence of learning. This occurrence of 'cognition' or 'encounter' could lead to internalization of learning. This type of encounter may occur once and for all as regards a particular object of learning or it may be repeated many times to facilitate further encounter with learning at

higher levels. Knowing therefore is an encounter by a learner with an object of learning and the internalization of such encounter. One can say that knowledge is a cognitive based activity within the social milieu that is facilitated by the human intellect which seeks for the truth of reality.

Generally, knowledge is meaningless without reference to the truth. We know something when it is true. The moment knowledge is doubted, it stands on a weak foundation, and knowledge must not only be true. It must also be real. The educational system of the society should be based on the reality of the society properly encapsulated in the bodies of knowledge that reflects the truism of the society. The process of promoting knowledge in the educational system should be consciously systematic and purposeful.

Criteria of Knowledge

In general usage, people tend to interchange the use of ‘belief’ and knowledge. When we fall short of knowing all we need to know about an object, we tend to use the word ‘belief’ because we do not have definite knowledge. Belief is always considered as the next step, a prelude, to knowledge that could be conditioned by social and psychological factors. The effect of the belief system on knowledge is such that in some cases it could extend the frontiers of knowledge by attempting to legitimize beliefs. On the other hand, the belief system can become restrictive by projecting negative attitude to the use of certain types of knowledge. However, belief is not knowledge because it does not contain objective truth but it could serve as a source of knowledge development.

Knowledge is not true belief because lucky guesses from wishful thinking are not knowledge. For true belief to become knowledge they must be firmly entrenched in sufficient, cogent and logical reasons. As such, beliefs that have been passed down for generations do not become knowledge except they have been properly treated to become knowledge. The progression that belief can become knowledge has made many contemporary thinkers to see ‘knowing’ as an evolutionary phenomena which is in sharp contrast with the early Greek notion that considered knowledge as a thing achieved once for all (Omatseye2004). This has some pedagogical implications.

For those who see knowledge as static, teaching becomes ‘telling’ or ‘dumping’ of knowledge in the learners where they are bombarded by avalanche of knowledge while teaching becomes teacher –centered. On the other hand, those who see knowledge as evolutionary tend to engage learners in continuous search for certainty and truth with the active participation of the learners. Truth then is considered as one of the criteria for knowledge. The Correspondence Theory of truth by Russell states that truth is obtained when facts or state of affairs which actually holds is reflected by a true statement. The elements that are being joined - the propositions and the facts- must be internally linked logically. Another way of testing for truth is the use of the Coherence Theory by Wittgenstein which states that the truth of a proposition or statement can be determined only by comparing it with other propositions. These propositions and facts must be entities which are independent of each other but of the same kind (Omatseye2004)

To Bamisaiye (1979), Knowledge must have validity and be objectively true for all times and places. So, statements like ‘Mrs. Bell is a male teacher’ is self contradictory and cannot be valid or true. Truth is a necessary condition for knowledge. Also, the referent or object of knowledge should have existence or reality that can be attributed to it like in the above example. Mrs. Bell cannot be a male teacher because the attributes of a ‘Mrs.’ do not belong to a male, although a Mrs. Bell do exists. Knowledge must have certainty that makes it real to the learner which helps in upholding the reliability of knowledge.

Utility is also an important criterion of knowledge. It should have direct benefit to the knower or in its usefulness for creating further knowledge. One can acquire knowledge for its sake to fulfill intrinsic value or for utility value for social welfare in helping to solve problems that could bring about improved living. The utility value of knowledge has implication in the way people assess the social behaviour of people who claim to be knowledgeable. It is expected that knowledge should bring about positive change in the overall disposition of the individual. The criteria of knowledge –truth, certainty, objectivity that leads to reliability and utilitarianism should adequately reflect in the individual that claims to be knowledgeable. The educational importance of this cannot be overemphasized in terms of the quality of knowledge to be taught in the system. How do we acquire knowledge or what types of knowledge are acquireable?

Sources or Types of Knowledge

- a. Intuitive knowledge: This is a product of insight or inspiration. It comes to the mind in a flash as a result of the power of the intellect abstracting within the consciousness. It offers solution to a problem that one has been contemplating for a while. It is mostly accidental while some attributes it to mystical power or a sudden 'mental spark'. This source is difficult to evaluate scientifically, however, it still remains a source of knowledge through which many new knowledge have emerged.
- b. Divine or revealed Knowledge: This describes knowledge disclosed to man by the use of whatever he believes in or through supernatural means. This could be through visions, dreams, trance or meditation. This cannot be investigated or tested. This source of knowledge is adhered to by faith especially in religious or spiritual activities.
- c. Authoritative knowledge: This type of knowledge is derived from sources that have consistently been verified to be true. Experts in certain disciplines have become authorities because of the depth of their knowledge, experience and constant truth and high degree of certainty in their area of specialization, As such; their pronouncements are taken as the truth. However, the dynamics of knowledge tend to catch up with them when they do not keep themselves abreast of new frontiers of knowledge.
- d. Empirical knowledge: This is sourced from our sensory experience of hearing, seeing, smelling and touching. To the empiricists, sensation is the ultimate source and basis of human knowledge but not the sole determinant. The sensations are processed through analysis and reflection of new and old experiences from which we conceptualize ideas that help to interpret and perceive the world. Through this process and observations certain patterns and relationships are established that enables one to make judgments which are considered more reliable than those from other sources since they could be tested and investigated to be the truth. This has been one of the major basis of modern science and developments.

This type of knowledge could be described as *A Posterior*. General inferences are made from observed particular events after investigations and experimentations. The main weakness of this induction is that it may not be true if it is based on false premise, however, if the premise is true and valid, conclusions drawn from them constitute objective knowledge on which further knowledge could be built. One other shortcoming is that perception and experience play important role in its formulation. It has been argued and well known that perception can be deceptive thereby critically influencing this type of knowledge.

- a. Rational: Rational knowledge is not based on experiments, observations or perception.

Rational knowledge is grounded in the power of reason, in particular, the principle of pure logic to derive true statements or propositions. It deals with logical relations and

disregards emotions or human sense experience for it is not inferred inductively from experience as such, does not need any other source of verification based on experience. Rational knowledge helps in determining certain categories of truth which are known and knowable because they exist regardless of our knowing them. (Bamisaiye 1989) For example, $3+3=6$. Also the total sum of the three angles of a triangle, no matter the size will equal 180.

Rational knowledge can be categorized as *A Priori* knowledge. The logical movement in rational knowledge is deductive i.e. from universal to particular. It is free of inconsistencies which authenticate the outcome of the process as a reliable source of knowledge. However, the logical proposition must be true or else the conclusion arrived at would be false. For example

All reptiles crawl (*major premise – universal*)
Lizard is a reptile (*minor premise – particular*)
Therefore, lizard crawls (*conclusion*)

The use of rational knowledge is ever present in mathematics, philosophy, logic and other educational disciplines where reflective thinking is paramount. It has been pivotal to every modern science and technology and everyday living activities. The effective deployment of this type of knowledge is seen as one of the hallmarks of an educated person.

The implication of this in the educational system is such that it is important first to reflect on which path and part of knowledge that is most vital. This helps in guiding educational policy makers in the design of the curriculum that is a reflection of the type of society they envision in their philosophy of education. While divine knowledge is more of spiritual of development, empirical and rational knowledge are more germane to modern life for they challenge us to think beyond the surface and equip us to create new possibilities that enhance life. A good knowledge of the sources of knowledge will help in understanding the structure and how best that knowledge could be taught. This is important because the educational system is dominated by intellectual activities of 'knowing how' and 'knowing that'.

Knowledge and Education

Essentially, education should equip the individual with knowledge, skills and sound morals so as to be able to function as a productive citizen. Schooling which is a part of education is mainly responsible for the transmission of knowledge. The different aptitude of the learner do influence what he can know and the level of knowledge that can be accessible to him which invariably do influence the level at which he can deploy his knowledge to the benefit of self and the society. This delicate balance calls for proper epistemological understanding of the educational system and the philosophical foundations of the society for knowledge cannot be for its sake alone but be properly thought out to reflect the aim, goals and aspirations of the society. The curricular content must be such that the forms of knowledge are properly organized for ease of teaching and assimilation that could lead to the sustenance and modernization of the society. Also, educators that are well grounded in the concept of knowledge are in a better position to determine and deploy the proper methods of teaching knowledge at various levels.

Knowledge being the mainstay of education has made many to use the two concepts interchangeably. One might then ask if a knowledgeable person is an educated person. It has been argued that knowledge is a necessary condition for being educated. So, an educated man is a knowledgeable man but a man with lots of knowledge could be miseducated if other aspects of education are not adequately developed, as such, knowledge is necessary but not a sufficient condition for education. An educated man needs more than just the acquisition of

knowledge 'how' and 'that'. He must have a body of knowledge with the required level of conceptual scheme that will help him raise his knowledge above the level of an assemblage of disjointed facts and insights (Peters1979) He should understand principles and organization of facts while his knowledge must reflect in his ways of looking at and the assessment of issues as they affect him and his environment. Majorly, the quality and the quantity of problems and challenges successfully tackled by him are the hallmark of his education else he will only be described as only knowledgeable.

Also, an educated man must practice the virtues of knowledge. He should be committed as an insider to the knowledge, understand the processes of the acquired knowledge and practice the utilitarian values (Peters1979). Knowledge and education should be deployed to positive and uplifting uses of the person and the society instead of deliberate manipulations for selfish and non-utilitarian gains as we tend to have among many societies whose 'educated' elites have become hindrance to positive development efforts.

Implication for Nigeria

Epistemology, the theory of knowledge has a central and dominant place in the educational system. Knowledge is the basic content of education either in the cognitive, psychomotor or affective domains. It is essential to the functionality and direction of education when it is treated in the Platonian tradition of virtue. The implication of this to the Nigerian society is such that some of the challenges being faced by our educational system and the 'educated' could be traced to the sparingly functionality of the epistemological content of the educational system. To this extent, the selection and impartation of knowledge has been faulty in an attempt to follow 'global best practises'by deliberately or ignorantly excluding such nuggets of knowledge that are peculiar, relevant and unique to the society and which carry high socio-cultural forces that are deemed to be anti modern or western practices. This tends to devalue our value system.

Thus, our educated men find it difficult to apply themselves in properly re defining our value system in an undisruptive manner while they also become hindrances to positive developments. To a large extent, the proper interpretation and integration of foreign ideas then become stumbling blocks especially in socio-political developments. To the extent that foreign ideas worked in their home societies they are then imposed wholesale on the Nigerian society without attaining the expected level of success. In the ensuing confusion and stagnation, the educated elite tend to seize the opportunity to appropriate political, economic and religious powers fraudulently through manipulations and other corruptive means. The educated man in Nigeria had generally been trusted as a person imbued with progressive utilitarian values especially in position of leadership until recently when they have now come to be seen as one of the major problems for they have failed to adequately use their education for the overall benefit of the society.

Within our extant educational system, there has been a noticeable decline in the robust application of epistemological foundations especially in and by our higher institutions in the critical appraisal of the socio-political, economic, religious and other essential aspects of our nation when compared with what obtained in the 1960s, 1970s and the early 1980s. Could this be due to the lack of epistemological relevance? The teaching of national history, geography, languages and other sociological based disciplines such as creative arts have met with steady decline for lack of proper epistemological orientations as such, our students find it easier to relate with foreign cultures and values as against ours. Also, the teaching of morals in our school system is subsumed under religious studies which make critical examination and meaning difficult and improbable thus national or regional moral and ethical consensus become a mirage.

Conclusion

In all these, knowledge and education face a conflicting prospect. For education to play its proper role, the knowledge content should be reconstructed with adequate emphasis on those aspects that can hasten our overall development. This lies in the proper identification of culture based or derived knowledge that bear relevance to the present and the future. Where ideas must be borrowed, they should be thoroughly processed to meet our needs and be in tandem with our culture so that the epistemological content can be functional and as such be properly interpreted and displayed by our educated men. It is in this that knowledge becomes edifying to education since the development of the society is dependent on the quantity and quality of its knowledge base especially those that could be shared with the rest of the world as critical resource materials.

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