

PHILOSOPHY, CULTURE, RELIGION AND TECHNOLOGICAL DEVELOPMENT IN AFRICA

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ABSTRACT

Artikel ini meneliti pengaruh filsafat, kebudayaan dan agama terhadap pendidikan dan pengembangan sumberdaya manusia di bidang teknik. Filsafat telah berperan penting dalam mengembangkan gagasan, teori, sistem, dsb. dalam rangka memecahkan masalah di bidang pelatihan teknik. Dari pengamatan di dapatkan bahwa unsur-unsur kebudayaan tertentu memang menjadi beban bagi pengembangan tenaga teknis itu. Beberapa contoh adalah pelarangan perempuan untuk terlibat dalam program-program ilmiah dan teknologi; diskriminasi etnik dan religius. Di sisi lain Agama-agama telah memberi kontribusi yang sangat berarti dalam pendirian lembaga-lembaga pelatihan.

Key Words:

•*Philosophy* •*Culture* •*Religion* •*Science* •*Technology*
•*Development* •*Education* •*Technical* •*Vocation* •*Training*
•*Ethics* •*Influence*

The word “philosophy” was first used by the Greeks to mean the love of knowledge or wisdom. Philosophy teaches man to think, reflect, and discern critically. Philosophy calls for a thoughtful examination and analysis of data, opinions, and beliefs because inconsistencies can be discovered in opinions and beliefs which leave the human mind unsatisfied. This dissatisfaction and the natural curiosity to know and grasp the truth, meaning, the pattern of occurrence about reality and existence, are part of the main considerations of philosophy.¹ After defining and asserting that the field of philosophy is as broad as human life itself, John Herman Bandall Jr. posited that philosophy is the criticism of the fundamental belief in any of man's great cultural enterprise including science, art, religion, moral life, special and practical activities when some new idea or altered experience has impinged upon them and generated intellectual tensions and maladjustment.²

Philosophy is the development and contribution of theories, systems and ideologies to solve the problems of the universe. Throughout the ages, philosophers like Socrates, Plato, Aristotle, Locke, Hegel, Pestalozzi, etc have made their resounding contributions to the transformation of mankind from savagery to civilization. Many traditions and cultures, notably, Asian culture, African culture, European culture, etc, have developed many theories and systems of thought to address the problems peculiar to them. Philosophy begins in wonder, doubt and curiosity; it grows out of the development of awareness of the problems of human existence. Philosophy denotes a personal attitude toward life and the universe. Philosophy plays a vital role in the setting of goals, objectives, and establishment of standards for assessing many disciplines, for instance, philosophy of science, education, art, music, history, law, religion, engineering, technology, medicine, etc. Philosophy in its nature, attempts to establish coherence throughout the whole domain of experience and realm of thought.

Philosophy, Culture and Religion

Culture which is a way of life denotes the customs or traditions, beliefs, art and social organizations of a particular country or group.³ Religion is the belief in the existence of a God or gods, and the activities that are connected with the worship of them. Prabhupada (2007) has emphasized the relevance of the works of Carl Jung (1865-1961) in exploring the unconscious and for championing the importance of philosophy, religion and mysticism in understanding the human mind. The conceptual paradigm which polarizes nature from culture is as relative as it is subjective⁴ The influence of culture in moderating behaviour in human societies has been highlighted by many authors.⁵ Cultural philosophical anthropology is concerned with man and his works. In many African societies, parents exert tremendous dictatorial influence on the activities of their children. For instance, if a father wants his son to study law, that son cannot opt to enroll to study engineering or science on his own volition even if he has the aptitude to do so. A daughter can be given out for marriage by parents without her consent, even if she has intension for further training. Ethnic reflection has seldom been carried on in isolation from religious convictions. The reason is that religion strongly affects the moral judgments of individuals and communities.

Religious organizations include Christianity, Islam, Judaism, Buddhism, Confucianism, Shintoism, Hinduism, etc, practiced in different parts of the world today. Christianity and Islam are the dominant religions in Africa, followed by the traditional African religion.⁶ The religions of ancient Assyria and Egypt involved definite moral codes regulating conduct and governing decisions in moral matters. The religious commitment extended beyond matters of worship and ritual to include moral precepts. Many Western moral philosophers have stressed the development of an independent system of ethics apart from religious or theological backgrounds. Socrates, Aristotle and Plato stressed the importance of ethics in human religions. Plato taught that men could regulate the moral life by a personal pursuit of the good, which would lead them beyond material shadows to the ideal forms. For Aristotle, the highest happiness comes from a contemplative use of the mind, and the moral man cultivates the virtues of prudence, temperance, courage and justice. Christianity stresses the moral qualities of love, mercy, and self-sacrifice as being closely connected to religious values.

All moral decisions must be based on factual considerations about man as a natural being in the universe. Judaism developed ethical monotheism,

i.e. the belief in a just God who is the father of all men, and goal of all striving for goodness. The conception of a just God enforced men's ethical obligations. The Ten Commandments are the best known examples of how religious belief shaped private and public morality.

Christianity adopted many of the ethical precepts of Judaism. Christianity stresses the moral qualities of love, mercy, and self-sacrifice as being closely connected to religious values. Other religions including Islam emphasize the ultimate will of God in every human activity or event. Christian missionaries and Islamic clerics have made remarkable impacts on educational development in Africa. The training institutions founded by the Christian missionaries have contributed to knowledge in agriculture, medicine, science and technology in many African countries. Globally, religious organizations have been identified with positive contributions towards educational and technological development in many countries especially Brazil, Britain, Canada, France, Germany, Italy, USA, Mexico, Australia, etc. The Hope Waddel Training Institute, Calabar, founded by Rev. Hope Waddel of The United Free Church of Scotland in 1895 is the first technical training institution established in Nigeria. Achimota College in Ghana, and Foura Bay College in Sierra Leon were also founded by the early missionaries who came to West Africa.

Philosophy and Science

Science is knowledge about the structure and behaviour of the natural and physical world based on facts that can be proved.⁷ Through scientific experiments, new developments in science and technology spring up. There are various points on which philosophy and science agree. During the past few centuries, philosophy developed in close association with science. Many of the outstanding philosophers have made important contributions to science. The contributions of Alfred Whitehead and Bertrand Russell to mathematical theory are well known. Both philosophy and science use the methods of reflective thinking in their attempt to address the problems of life and the universe. They exhibit a critical, open minded attitude and an impartial concern for the truth. They are interested in organized and systematic knowledge. Science supplies philosophy with a large amount of factual descriptive material essential in its sustenance. Indeed the philosophy of any period tends to reflect the scientific outlook of that period.

Science attempts to analyze the whole into its constituent elements or the organism into organs, while philosophy attempts to combine things in

interpretative syntheses and to discover their significance. Whereas science tends to eliminate the drive for objectivity, philosophy is interested in personality, values and all realms of experience.

Philosophy and Technology

Technology is scientific knowledge used in practical ways in industry, for example in designing new machines.⁸ Technology cannot thrive without philosophy. There must be a fundamental idea or philosophy enunciated before any product of technology can be produced for mankind. Every technological product to be designed and produced must have a functional purpose, and to enunciate the basic ideas about such developments is the subject matter consideration of philosophy. Whereas science and technology deal with restricted or limited fields, philosophy attempts to deal with the whole or totality of experiences.

Philosophy is, thus, inclusive rather than exclusive as it attempts to include in its body of knowledge, what is common to all fields and to human experience in general. Philosophy attempts to gain a more comprehensive view of things, whereas science and technology are more analytical and descriptive or synoptic, dealing with the properties and qualities of nature and life as a whole. Technology is interested in the nature of things as they are, while philosophy is not only interested in the real aspects, but also in the possibilities of things and their worth and meaning. To observe nature and to control processes are the aims of science and technology, while to criticize, evaluate and co-ordinate ends is part of the tasks of philosophy. African countries are still struggling to emancipate themselves from the yoke of under development. Achievement of a reasonable and sustainable level of industrial and infrastructural development is hinged on technological development. Scientific investigation and technological development cannot thrive successfully without an appropriate philosophy supporting them. Technological under development has placed African countries on a serious point of disadvantage in global affairs; and this situation needs to be addressed.

Philosophy of Education

Philosophy of education is primarily concerned with the application of philosophical principles to the practical conduct of education. As Otto Krash has aptly remarked: “philosophy of education must adopt the notion that philosophizing ought to make a difference in the education scene”.⁹

The tools of philosophy must be put to work on problems of men wherein philosophizing may achieve significance for men. Philosophy of education, according to this interpretation, takes the theoretical findings of philosophy and translates them into some kind of intelligent and workable schemes for the on-going practical process of education.

Philosophy of education is defined by some authors in the classical or traditional terms, while others look at it from the point of view of the historical development of educational ideas.¹⁰ Some individuals have focused on the general methods of approach in describing philosophy of education as a process of conceptual analysis, while others have emphasized the functions or those characteristics which designate philosophy of education as a field of study.

Philosophy of Technical Education

Philosophy of education, from the classical or traditional perspective has an ideal model often referred to as “Technical Philosophy of Education”. All other philosophies of education as expressed through religious/ideological belief systems, nationalism, etc, are classified as non-technical philosophies of education. Without an ideal philosophy of technical education enunciated and vigorously implemented, every statement about technological development in Africa is meaningless. The reflections of Plato (422-347B.C) and John Dewey (1858-1952) on education are from the classical points of view regarded as the paradigms of what technical philosophy of education ought to be.¹¹ Plato and John Dewey are technical philosophers of education because they formulated comprehensive functional educational theories and practices from their metaphysical, epistemological and axiological assumptions. Their ideas and theories can be replicated in African nations to promote technological development.

In order to satisfy the requirement of a technical philosophy of education, the educational philosopher must provide a set of concepts in which to state or to re-state views concerning the nature of reality of knowledge, and values as they affect the process of education. Okoronkwo and Ozurumba (1989) posited that technical philosophy of education is segmentalized into three broad categories namely: (i) Progressivism (ii) Essentialism, and (iii) Perennialism.

Progressivism is realism in philosophical position or consideration which refers to the progressive education movement in North America which sought to create a better world through an experience – centered

functional education. Essentialism is in the idealism philosophical position and is considered a reaction against progressive education. Instead of experience, it emphasizes the essentials of basic subject matter, i.e. reading, writing and arithmetic for elementary school pupils; and geography, grammar, history, science, foreign language and mathematics for secondary school students. Perennialism is in the Humanism/Existentialism position of philosophy which concentrates on the present practices and benefits derivable from the past. It insists that education should conserve the perennial values of world civilization.

Modes of Philosophy of Education

The activities within educational philosophy can be categorized into three main modes namely: (i) Speculative philosophy of education (2) Normative philosophy of education , and (3) Analytic philosophy of education.

Speculative philosophy of education has its basis on general metaphysics. It is concerned with speculative creativity and synthesis within the educational process. In an effort to synthesize all areas of educational experience into a coherent world-view, speculative philosophy of education takes over the results of the religious and ethnical experiences of man, and then reflects on the whole. Speculative philosophy of education takes into consideration the nature of man, because any philosophy of education depends on the view taken of the person (man) who is to be educated.

There are two main schools of thought in this area, namely:(1) Idealism and, (2) Realism. Idealism asserts that every reality is ultimately spiritual or mental. The idealists maintain that material or corporeal things constitute manifestations of the unchanging incorporeal world of ideas. They teach that there are innate ideas which form the basis of knowledge. Realism adopts a position which is the polar opposite of the Idealists position of metaphysics. The Realists maintain that the material world is real and that all corporeal things exist independently and outside the mind of the knower. They agree that man has an inclination to be social.

Normative Philosophy of Education – The role of normative philosophy of education is three-fold namely: (i) to enunciate basic values (ii) to formulate intermediate objectives and (iii) to stress the place of moral considerations in education. Normative philosophy of education is concerned with the process of making rational prescriptive value judgments in an educational context. Value decisions are made every day in the practical and theoretical worlds of education. The problems of

examination malpractice, secret cultism, and other vices pervading educational institutions in many African nations can be addressed with this mode of philosophy.

Analytic Philosophy of Education – This mode of educational philosophy, unlike the speculative and normative modes, does not deal with any specific set of inquiry. It consists of rational reflection, critical analysis of arguments and assumptions and systematic classification of fundamental ideas. Whereas traditional philosophy uses many concepts within the educational context clearly defining the meaning of such concepts, analytic philosophy insists that a clear understanding of concepts is an essential prerequisite for dealing intelligently with the problems of education.

The approach in traditional philosophy seems to take concepts such as knowing, teaching, learning, etc, for granted. These same concepts and many more, are the subject of investigation for the analytic philosopher of education.

Philosophy and Principles of Vocational/Technical Education

Philosophy of vocational/technical education refers to the nature of, and search for knowledge about the existence of education for work. The principles of vocational and technical education are the fundamental considerations or basic rules which serve as ways of evaluating present practices in education for work. They also serve as a guide to future actions. When established, principles constitute areas of general agreement among those who function in the particular field. In the field of vocational/technical education, principles are based on organization, administration and instruction.

Goals Of Vocational/Technical Education

The goals of vocational/technical education are as follows:

1. To meet the technical manpower needs of the society by preparing the students for employment and self-employment.
2. To increase the options available for the students.
3. To serve as a motivating force to enhance further education and training.
4. To enable the students to choose their careers wisely.
5. To enable individuals know how to use their leisure times wisely.

Socio-Cultural Factors Affecting Technological Development In Africa

In African societies, culture plays significant roles in shaping public opinions and directing the personal conducts of individuals. In technical training institutions in Nigeria, Kpabep(2006) volunteered that admission into the vital training programmes is based some times on nepotism, which is a major cultural trait that makes an individual to desire to favour those from his or her part of the country in the scheme of prioritized programmes especially in public establishments. This has a negative impact on technological development because many individuals who would have received technical training in order to contribute to technological development are deprived of the opportunity. When some students perform poorly in examinations, they tend to believe, due to superstition, that some supernatural forces are responsible for their failure. So, rather than work hard to repeat the examinations and succeed, they drop out of school. In gender issues, there is discrimination in many African societies against active participation by women in education, especially in specializations regarded as the preserve of the men folk, for instance, science, engineering, architecture, mining, etc. In some African communities, women are not allowed to climb trees or roof tops. Unfortunately, this situation makes it difficult for women, especially the brilliant ones, to participate in technical manpower training and contribute to technological development. Intra and inter community squabbles affect enrolment and smooth operations in the existing training institutions. The ethnic wars of attrition in many parts of Africa, especially, Burundi, Rwanda, Somalia, Ethiopia, Eritrea, Republic of Chad, Liberia, Sierra Leon, Western Sahara, Sudan, Democratic Republic of Congo, etc, render technical training ineffective or impossible, thereby frustrating every effort geared toward technological development. Religious differences in some African communities lead to violent sectarian confrontations in some training institutions, thereby disrupting the smooth flow of academic and professional programmes. Even in the work place, Egonu (2007) posits that African culture ensures that an influential person tends to favour people who are affiliated to him in one form or another; and such affiliations could be from ethnicity, religious background, family/marriage ties, school mate relationship, political party cleavages, etc.

Conclusion

The roles of philosophy, religion and culture in education and technical manpower training for the promotion of technological development in Africa have been highlighted. The technical training and other institutions which are vested with the responsibility to develop technical manpower for technological development, cannot thrive without an appropriate philosophy guiding their operations. Philosophy endeavours to work out some kind of systematic vision or outlook as a framework within which technical training can be placed in view of its objectives. However, some aspects of culture in some African societies inhibit education, literacy programmes, and technical manpower training. Some socio-cultural factors in Africa make it very difficult particularly for women to participate in scientific and technological programmes. Religious organizations are noted for their enviable contributions to educational development in many African countries. Christian and Islamic schools are visible in many parts of Africa. But the religious discrimination and sectarian violence often disrupting the smooth flow of activities in many African nations and their institutions cannot be ignored. African nations need to rise up to these challenges if technological development, a necessary ingredient for rapid industrialization, is to have a safe berth on their shores. The experiences of the former Third World countries now referred to as part of the Asian Tigers, are quite instructive.

End Notes :

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