Education, Critical Thinking and National Development

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Abstract: A good personality is said to be the product of a sound mind which is the product of a balanced educational system of a nation. The establishment of a balanced educational system is the basis for national development. Critical and creative thinking is the building of sound and creative or reflective mind and this is core to balanced education for national development. This paper examines the role of critical and creative thinking in education for the realization of national growth and development. To this end the paper raises issues such as; what is education? What role should education play in national development? How do we attain the needed kind of education for national development? What is meant by critical and creative thinking? How can we effect critical thinking in the educational system such that we can derive the required balanced education for national growth and development? The paper concludes that it is necessarily indispensable for the government of any nation to invest heavily in education in order to achieve the holistic development it so desired; a situation of advancement of intelligence where everyone as educated, contributes meaningfully to national development.

Key Words: Critical Thinking, Education, National Development.

Introduction

The essence of education is to be able to surmount problems around our environment(s) such that we can lessen the myriad number of daily problems which pose challenges to our peaceful sojourn on earth. Hence, Adeyemi averred that in any society, human life is a series of confrontations- confrontation with oneself, with other people, with societal institutions and with one's environment (Adeyemi 2012, 156). This leaves man with limitless problems to battle with in the society. To be able to surmount these myriad problems effectively and efficiently therefore, there is need for a man of critical and reflective mind who has the knowledge and wisdom to solve this gamut of problems for peaceful existence of life in human society. This is in tandem with the prognosis of Socrates "Man know thyself".

This means there is need for the application of thought, reflection and cogitation of the mind for a fruitful product of thought than mere dogmatic knowledge. This is what is needed in our education sector not just the traditional "educational indoctrination" of table–spoon feeding of children and adults alike in our colonial educational system that was handed down to us by the colonial masters which cannot help either the trainer nor the trainee to have access to personal thinking and reflection on issues but rather the type of garbage in and out that have been paraded since the colonial days to this present era in our education sector. Education in our 21st century is to help build mankind for the needed skills and competencies required to solve societal problems confronting humanity to the effect that each individual should be trained to be a problem solver. It is only on this note that societal problems can be alleviated and national development could be achieved through sound and good education. Good education lies in the cultivation of critical thinking, reflection and analysis of problems, synthesis of thought, evaluation of divergent views on issues confronting man, and endearing solutions springing forth.

A nation whose educational system is bereft of critical and reflective skills cannot experience balanced education for national development because critical or creative thinking is core to good education and values which stem national development. Adeyemi corroborated this

when he said education, the world over, remains the most potent weapon of development (Adeyemi, 155). Hence, education has been said to be an instrument for effecting national development. But, this laudable project of education cannot come to bear if education is not founded upon critical and reflective (creative) thinking so that foundation for good education which will aid national development is completely bound on critical thinking.

Hence, Odukoya emphases this point when he said the quality of education naturally determines the quality of development, education appears to be a mystical wand that wields answers to many of the challenges in the world today (Odukoya, 2018). He went further to maintain that the curriculum is the grand plan of national education. By extension, the curriculum is the blueprint of national development (Amaele, et al, 2011, 7). These thoughts about the place of critical and creative thinking in education for achieving national development is synonymous to the relevance of a building plan for a building structural development . The strength and durability of every building is basically determined by the building plan; that is how the quality and robustness of an education, the quality of the individual persons, the institutions and national development lie with critical and creative thinking. So the quality of education and national development are simply the reflection of critical minds, critical and reflective thinking. The essence for critical and creative thinking in the education sector is for a more effective educational system that could deliver sustainable indigenous productivity and national development.

Conceptual Framework
Education: Experts in the field of education have given various definitions to the term 'education'. We shall start with the etymological meaning in order to properly situate a clear understanding of the term. The word education, according to Amaele et al. is derived from two Latin words "educare" and "educere". Accordingly, "educare" means to train, form or mould the individuals to achieve the social needs and aspirations. On the other hand, "educere", means to build, to lead, or to develop (Amaele, et al, 2011, 7). Otite and Ogionwo (2006) gave theirs as the process of development of an independent and integrated personality, which entails the training and acquisition of special knowledge, skills, attitudes, and values needed by an individual to be responsible and which would enable him to contribute his own quota to the growth of the society of which he is a member (Amaele, et al. 2011, 7). Both definitions above mostly favoured the humanists who believe that the major function of education is the development of the natural potentials in the child that will enable him excel in the society in accordance to his ability, interest and need. By this definition, one can deduce a child central-orientation approach that is tailored to training, molding and guiding a child from his early beginning to adulthood as the function of education.

This above definition was supported by Amaele, et al. who see education as the total development of the individual child through acceptable methods and techniques according to his abilities and interests to meet up the needs of the society and for the individual to take his rightful place and contribute equally to the enhancement of the society (see, Iyoha in Amaele, et al. 2011, 7). This is substantiated by Fafunwa who defines education as what each generation gives to its younger ones which makes them develop attitudes, abilities, skills and other behaviours which are the positive values to the society in which they live. All these definitions about the meaning of education are all accepted in this paper based on the context of our writing.

National Development: The term "national development", like every other social concept with which philosophers and social scientists operate, lacks a definitional consensus. Scholars like W. Arthur, Consur Ravis, Fei John and Lewis see national development from the economic perspective. They likened national development as increase in the Gross National Product (GNP) or increase in the per-capital income (Staden 1998, 1). This definition only reflects the economist approach which has gradually expanded into the modernist approach. The modernist approach to national development defined the term national development as expansion of infrastructure or a general project of industrialization that brings about access to

such facilities as good roads, healthcare, portable water, and education etc. (Robinson 1981, 15). There are scholars who defined national development from their professional inclination – Joan Robinson, for example, who sees national development as an aspect of economic modernization which is the expansion of control over nature through closer interaction among men (Mabogunje 1980, 6).

Akin Mobogunje defines national development, from his background as an urban geographer, as a strategy of spatial reorganization, crucial for the whole process of political mobilization and of central state control over the planning of productive forces not concentrated at just a spot (Mabogunje 1980, 6). Lichman and Markovitz (1972, 57) stress that in a developed society, premium is attached to elimination of poverty, provision of food, shelter and clothing to its members. Todaro and Smith (2006, 20-21) see national development from the modernization paradigm which sees development as a multidimensional process which involves the sustained elevation of the entire society and social system towards a better or humane life. According to them, sustenance is concerned with ability to meet basic needs, self-esteem is concerned with a sense of worth and self respect, of not being used by others as tools for their own needs, and freedom is concerned with freedom from servitude – servitude to nature, ignorance, others, misery, institutions and dogmatic beliefs especially that which states that poverty is an ordained occurrence (p. 21).

Meanwhile, philosophers like Kwasi Wiredu, Kwame Gyekye, Julius Nyerere and others from the philosophic passion, who are themselves humanist, tend to have a broader perspective of national development. Kwasi Wiredu, for instance, argues that development should not be perceived solely in material terms. According to him development has two broad dimensions the material and the moral (Oladipo 2000, 121). The material perspective of development involves the control and exploitation of the physical environment through the application of the results of science and technology, while the moral stance insists on the regulation and improvement of human relationship through the promotion of human values such as freedom, justice, equality and cooperation. To Kwasi Wiredu, a well round development is the one whereby material advancement and the social or moral developments are mutually reinforcing (Oladipo, 120). What this implies is that to have a well meaning development, it must involve both the material and moral aspects. To have either will entail an encompassing development instead of the encompassing type which showcases all-round development. It is this type that all societies world-wide clamour for in their various societal endeavors.

Critical Thinking: Critical thinking has been defined by so many writers and research fellows as well. According to Encarta, critical thinking is regarded as a type of critical analysis. It has been described as disciplined, intellectual criticism that combines research, knowledge of historical context and balanced judgment. It is the ability to think logically and analytically (Encarta 2006). The foundation for critical thinking defined it as skilled and active interpretation and evaluation of observations, communications, information and argumentation (www.foundationforcriticalthinking.org). By this, critical thinking gives room for the consideration of evidence, the position of judgment, the standard for making judgment and the valid methods and techniques for forming the judgment. It also implies the theoretical basis set aside for understanding problems. It was to this end that the foundation for critical thinking conceptualized critical thinking as: The intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing and or evaluating information gathered from or generated by observation, experience, reflection, reasoning, or communication, as a guide to belief and action. In its exemplary form, the foundation claimed that it is based on universal intellectual values of clarity, accuracy, precision, consistency, relevance, sound evidence, good reasons, depth, breath and fairness (Todaro and Smith, p.21).

Dewey (1938) who is said to be the first to champion the cause of critical thinking in education perceived critical thinking as the active, persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it. Another philosopher, Garrison believes that critical thinking includes five steps: identifying the problems, defining

the problems clearly, searching for possible solutions, evaluating their functions and integrating their understanding with available knowledge.

Lipman, in his own philosophical submission, points out that critical thinking is one kind of reflective thinking that helps people to judge easily and correctly (2000, 18). Lipman regards critical thinking to be related to cognitive growth and intellectual responsibility. He also perceived critical thinking to be self-correction. According to him, basic skills like reading, writing, arithmetic and verbal communication have important role in developing social skills, but they are not enough for critical thinking.

Unlike the philosophy based theories, psychology theories are concerned with cognitive process while philosophy is concerned with analysis of arguments, placing emphasis on critical thinking, dispositional properties like; the attitudes, habits of mind or internal motivations that help individuals to use critical thinking for searching for facts and truth. The psychologist aimed at critical thinking skills such as reflection, reasoning, analysis, comparison, evaluations, recognizing, assumptions inference, formulating hypothesis, testing and making comprehensive conclusion. This marks a distinction between the views of the philosophers and the psychologists on what they perceive critical thinking is all about. Some psychologists believed critical thinking consists of: A set of skills that range from lower order to higher order; the higher order skills requiring more complex thinking than lower ones which are seen as needing only basic and less complex thinking. Ericson and Hastie (1999, 40) see critical thinking from the psychological perspective to be: A sequence of internal symbolic activities that lead to novel and productive ideas or conclusions. Norshimas initiated the thought that critical thinking consists of the components. According to him, with these components in critical thinking, everybody has to recognize the value of problems, try to solve it, prepare a design and test its messages and feedback (Adeyemi 2012, 156).

Education System and Critical Thinking: A Nexus

In any type of education initiated, critical and creative thinking features prominently. Thinking is the very nature of man, but the degree varies from person to person. A man who has basic training in critical reasoning will tend to think higher than the other who does not have critical and creative thinking skills and capabilities for higher reasoning. Hence, a philosopher educator is better than a mere teacher in teaching and learning program. This is because anyone who cannot think may not be able to solve the smallest of problem besetting his environment.

Hence, Adeyemi opines that it takes a sound mind, a mind imbued with reflective thinking, which can engage in deep analysis to come up with causes of problem at hand and generate possible solutions or options to arrive at a decision; to solve or get out of problem (Adeyemi, p. 156). McGuiness (2005, 100) corroborates this when he said that critical thinking encourages people to shape their personal opinions and attitudes with self-confidence instead of simply reinstating those of others by investigating issues from different perspectives with logical reasoned arguments. Critical thinking skills are relevant to students, policy makers and researchers as well. In fact, every living person requires critical and creative thinking skills for the identification of problems and solving the problems as well. This is why Chouari pointed out that at the outset of the twenty first century the role of critical thinking education becomes pivotal. He went further to affirm the role of critical thinking that most counties of the world including the developing countries have started implementing critical thinking in their curricula at different levels of their education.

Ozkan-Akpan (2008) explained that the results of critical thinking studies show that education and critical thinking most go hand in hand to achieve educational goals. It appears that there is a general consensus that critical thinking is core to education for the realization of national development and is one of the indices for quality education. It was in this direction of thought that Ijaiya, Alabi and Fasasi (2011) submitted that one can almost say that "tell me the quality of your teacher training and I will tell you the quality of your educational system (2011, 28). By

extension one can interpret this to say "Tell me the measure of the critical thinking in your education system and I will tell you the level of your national development." This goes to show that there is a symbiotic relationship between critical thinking and education in the overall development of a nation. The impact of critical thinking in education for bringing about the needed national development cannot be over emphasized. Without critical minds, there cannot be problems identifiers and problems solvers. Enough of the table-spoon-feeding system of education that ends up in emptiness but rather critical thinking brings to bear intelligent design, implementation of the design and ability to advance knowledge. This makes everybody to recognize the value attached to problems identification, and having the ability to solve them through the design and testing the design so formulated.

The Role of Critical Thinking in Education and National Development
The role of critical and creative thinking cannot be overemphasized. It brings wisdom to bear in speculative art. The roles are enumerated and explained below:

A. Creative thinking helps in building rational and critical minds: To make education relevant to national development, there is the need to first and foremost create a building plan for the achievement of such goal for national development. The building plan with education as a necessary need in order to actualize moral, civic, cultural and economic sustainability is to imbibe education with creative and critical thinking as a core subject area that will be compulsory for both the primary school pupils and the secondary as well. This will bring the needed reforms to our education sector that will make it contribute meaningfully to national development. The relevance of critical and creative thinking was underscored by Olatunji (2017, 210) thus: The goal of further encouraging the spirit of inquiry and creativity in teachers is the only goal out of the five goals of teachers education that is related to critical thinking.

   Critical and creative thinking helps to foster rational and critical minds, and this is related to creativity; without rational thinking, there cannot be creativity. It is critical thinking that gives birth to creativity. Hence, Burnaud and Craft defined creativity as the possibility thinking which includes seven habits of the mind; posing questions, play, immersion, innovation, risk taking, being imaginative and self determination. All these possibilities of the mind are very important in teaching and learning which themselves aid national development. This is substantiated by Russell's submission that critical thinking provides thinkers with (a) the ability to form opinion for oneself, (b) the ability to find impartial solutions which involves learning to accept and control others preferences and estimate issues on their merits (c) the ability to identify and question assumptions by employing what Russell calls constructive doubt in order to test unexamined beliefs (1937, 529). All these strengthen an individual's ability to personal inquiry and creativity.

B. It helps to prevent indoctrination in teaching and learning: Critical thinking as an ideal has important role it plays in teaching and learning which personal self development is. It helps an individual to cultivate the spirit of seeing thinking in different perspectives. By this he can contribute his own quota to issues of local and national interest. Things will not be seen in only one way but through several perspectives and by so doing numerous ideas can spring forth from a particular issue which will then have various solutions. Russell, emphasizing the importance of critical thinking as cited in Hare, explains that critical thinking involves a wide range of skills, dispositions and attitudes which together characterized a virtue that possesses both an intellectual and moral aspects which serve to prevent so many vices including dogmatism and prejudice (indoctrination) in teaching and learning in education. Going by the Russellian submission, critical thinking can help to prepare learners and teachers for adequate knowledge needed for educational and national development which will support their skills for adaptation and for changing situations (Russell 1956, 246). These are the reasons among others while the government should include critical thinking in the school curriculum for a balanced education system.

C.   It helps to build coherent and cleared-distinct thought: No doubt everybody is involved in thinking. But not all thinking is adequate. Most of our thinking if not rigorous is biased, uninformed, distorted and purely prejudiced. This fact therefore shows the place of critical thinking aids e.g. good analysis, evaluation, explanation, etc.; critical thinking aids good analysis, evaluation, explanation and demystification of mysteries in our experiences of reality. By these we can avoid biases and out right prejudice. It therefore helps to fashion out clear and distinct knowledge about reality. This made Siegel to argue that critical thinking should involve a process of evaluation and reasoned judgment and willingness, dispositions and attitudes to living and acting by them. Facione (1988) gave his report to the American Philosophical Association on the role of critical thinking. He states that the critical thinker has some dispositions and cognitive skills such as being able to interpret, analyze and evaluate, among others. Halpern in Liu, Frankel and Roohr, provided us with the reason why critical thinking is related to the current challenge in education for the preparation of critical thinking for high qualified people who will be able to meet the demands of the labor market. They affirm that critical thinking is:

The use of those cognitive skills or strategies that increase the probability of a desirable outcome. It is used to describe thinking that is purposeful, reasoned, and goal directed the kind of thinking involved in solving problems, formulating inferences, calculating likelihoods, and making decisions, when the thinker is using skills that are thoughtful and effective for particular context and type of thinking task (2014, 19).

This ways of looking at critical thinking enables us to realize that critical thinking aids the individual researcher to think purposefully and directs his thinking towards solving problem according to the prevailing circumstances.

How to Effect Critical and Creative Thinking in Education for National Development
Agreeably, one of the best ways to ensure critical thinking in education for national development is to ensure that critical thinking and creative thinking become a subject in the curriculum of both primary and secondary schools while at the higher-education the subject has to be made compulsory from year one to the final level before graduating not the way it is now, whereby it is only taught at the beginning or in year one alone as a general study or as it is taught in year one and three in philosophy department as logic and symbolic logic alone. Critical and creative skills are to be taught in all department from year one to the final year and should not only be taught as an abstract or theoretical course but should be made to reflect reality i.e. to have practical effect to our daily life experiences especially as the skills cover conceptualizing, applying, analyzing, synthesizing, or evaluating information, observation, experience, reflection, reasoning or communication as a guide to belief and action; these are examples of critical or creative thinking skills that are to be imbibed by every teacher and student alike for a balanced education for national developmental goals.

Conclusion
Human personality cannot be better groomed without imbibing critical and creative thinking skills. Sound minds are products of critical creative thinking. Having these skills in individuals, makes good and sound personalities which produce balanced education, while balanced education fosters national development. The role of critical and creative thinking brings fort identification of problems and capacity to solving the problems identified. The hallmark of the role of critical and creative thinking lies in the power of creativity. A person's or nation's creativity tells of the caliber of the sound mind(s) in such a person or nation. The best way to inculcate critical thinking is to incorporate the subject in our primary and secondary school curricula and ensure that critical and creative thinking are taught at all levels and in all departments in the higher education programs.

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