

CRITICAL AND CREATIVE THINKING: IMPLICATIONS FOR EDUCATIONAL PRACTICE IN NIGERIA

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Abstract

The banking concept of education as observed by Paulo Freire contributed to a situation whereby learners at the end of their courses are not so equipped to be self –reliant. This possibly, could have accounted for the level of unemployment among graduates in the present time. However, from antiquity, emphasis has been on raising learners who have self-knowledge about themselves and that of their environment. In the present time, some Educational Practices do not so much realize the desire of critical and creative thinking. Much implementation is not given to critical and creative thinking as such, many students do not know beyond what they were taught in their classes. Based on this, the paper examines the implications of critical and creative thinking for Educational Practices in Nigeria with the view to giving greater emphasis on critical and creative thinking skills as practice in our schools. Although, the National Policy on Education captures the issue of critical and creative thinking in its articulation on education, they have not been given enough and adequate implementation. The paper recommends that the government, educational authorities and teachers should do more within their ambit to strengthen critical and creative thinking skills needed by students to cope in the present times, restore quality education and develop the society at large.

Keywords: Critical Thinking, Creative Thinking, Educational Practices and Self-knowledge.

Introduction

The complex nature of the present society and indeed the demands of the 21st century world support greatly for wide spread of goals and aims of education. This scenario makes it almost universally accepted that education should not only provide individuals with knowledge in a particular field, but should also inculcate in them

“habits of a mind” which many scholars argue in support of the idea of moving away from ‘depositing’ and ‘banking’ concept of knowledge and information to equip learners with life-long abilities to enable them think critically and creatively

as to fit into the demands of the modern society.

In support of critical and creative thinking, O'tuel and Bulland (n.d) believed that:

- The present society requires individuals to be not literate, but also able to analyze information, draw conclusions, generate hypotheses, and find solutions.
- Students are now facing the challenges of information explosion, obsolescence of much past information, and multiple challenges at the present and at future.
- Advocates regard the process of learning as being just as important as the product.

The foregoing supports the reasoning that critical and creative thinking should form part of the skills education should continue to provide for students. The understanding that many graduates are lacking in critical thinking has led to many countries around the world reshaping their education towards achieving critical and creative thinking individuals.

Hence, like Chibueze and Ogbe (2017) expressed, in the bid to foster critical and creative thinking individual;

- The American Department of Education responded by including critical thinking as one of the main goals of American Education.
- In Britain, thinking skills are now considered as a core curriculum.
- When the Soviest Union collapsed, the Russian Federation quickly embarked on education reforms; making the National Federation Education Standard to identify higher-order thinking abilities as one of the main

objectives of the new Russian Curriculum.

- Records from Finland, Brazil, Australia, Hong Kong and Singapore show that critical or high-order thinking abilities are now recognized as one of the primary goals of education in their respective countries.

It is worthy of note that the Nigerian nation is not left out of this awareness and consequent inclusion of critical and creative thinking as main primary aims of her education. In her early childhood stage, according to Federal Republic of Nigeria (2014) National Policy on Education, the Nigerian child is expected to acquire the spirit of enquiry and creativity through the exploration of nature, the environment, music, art and so on. The policy stated that one of the goals at the primary school level is to lay a solid basis for scientific, critical and reflective thinking while at its secondary school level, learners are expected to acquire skills of critical, independent, and rational thinking necessary for them to cope with the modern world. Again, at the tertiary level, learners are expected to acquire skills that will enable them think critically, creatively, independently, reflectively and relationally about themselves and the judgment they make of the world around them.

This shows that thinking is being articulated from the education policy statements. If it is not in practice, the case should not be seen or regarded as that of lack of articulation but of implementation and share commitment by educational players. In this discourse, efforts would be

made to consider the concepts of critical and creative thinking, traits and attitudes that govern them, the development of self knowledge, benefits of critical and creative thinking and their implications for educational practices in Nigeria; with the view calling the attention of the government, ministry of education, teachers and students to the importance of critical and creative thinking in order to accord them their pride of place in the educational system.

Historical Perspective of Critical and Creative Thinking

The roots of critical thinking activity are traced to the ancient Greeks. This forms Socratic vision in his teaching. Socrates engages his students in questions that would require rational responses. According to Karfe (2017), the ‘Socrates method’, as his style of probing and questioning is aimed at ‘clearing the mind of false assumptions and so making it receptive of real knowledge’. By this, Socrates established the importance of asking deep questions. This means that by his method, profound thinking is wielded before an idea could be accepted as worthy of belief. Socrates had in mind the idea of critical and creative thinking when he expressed that “an unexamined life is not worth living”, likewise Rene Descartes when he avers “I think therefore I exist”.

Plato beyond giving the world a record of Socrates thoughts, developed on Socrates idea of methodic questioning. Aristotle, his student expanded Socrates and Plato’s critical thinking style to include rules of reasoning (Validity rules) for thinking critically and drawing inferences. After the

Greek philosophers set the pace of logical reasoning, there have been several other Africans and Nigerians indeed, who had and are making efforts to promote critical and creative thinking.

Concept of Critical Thinking

A necessary take-off point in understanding the concept of critical thinking would be understanding the meaning of criticism and thinking. The etymology of the word criticism is from two Greek words “Kriticos” which means the art of judgement and “Kriterion” meaning standards. The merge of “Kriticos and Kriterion” as one word for criticism refers to the art of judgement according to standards. Today, criticism is understood as the practice of judging the merits and faults of something or even interfering in something that has fault, defects and drawbacks with an intent to make them correct and faultless. Through criticism in a discourse, one scrutinizes and tests propositions which are offered for acceptance in order to find out whether they match with reality or not (Karfe, 2017).

Thinking serves as a process of using one’s mind to consider something. It deals with pondering on something and serves as a fundamental human activity. Man is considered as a thinking being. It is the habit of man to think, that is to say, everyone thinks but this does not suggest that all thoughts are productive. And if a thought is not productive, it must then be causal, left to itself, biased, distorted, partial or uninformed.

The concept, critical thinking therefore, stands for the ability to analyze the way one thinks and presents evidence for ideas put forth rather than simply accepting personal reasoning as sufficient proof. Through critical thinking, ideas are organized in such a manner that appeals to reason. Man's pattern of thinking advanced as to provide solution to problems. It involves scrutinizing any issue before making decision. Its art is skillful requiring aptitude to reflect divergently. It is self-directed, self-disciplined, self-monitored and self-corrective thinking.

Karfe (2017) avers that critical thinkers have arrays of intellectual skills that include: inferential reasoning, detecting assumptions and identifying sources of bias in arguments among others. It is a skill that is skeptical without being cynical, open-minded without being wishy-washy, analytical without being nitpicking, decisive without being stubborn, evaluative without being judgmental and forceful without being opinionated. Philosophers supported and promoted coordinated thinking as not to accept fallacies thereby drawing inappropriate conclusions. And critical thinking as a matter of fact, reduces the chances of making foolish and erroneous mistakes.

In the views of Ajaezu (2017), critical thinking is the ability to engage in reflective and independent thinking; thoroughly questioning ideas and assumptions to see if we can construct an acceptable and useful meaning. It is judging our thoughts rather than acting on

intuition or instinct, examining our ideas in view of the knowledge which has been acquired in order to locate the appropriate route to a goal, capture and transmit knowledge or express views or feelings appropriately. Critical thinking enables one to understand, infer, and apply the abstract to meaningful investigations. Critical thinking remains an intellectual discipline that actively and skillfully conceptualizes, applies, analyze, synthesize, and/or evaluates, information through observation, experience, reflection, reasoning or communication, as a guide to belief action (Scriven & Paul, 1987).

To Chukwu (2017), critical thinking becomes a process of examining and re-examining those previously held assumptions, decisions and beliefs in the light of new standards and developments. Equally too, Pinta (2017) opines that critical thinking simply means making sound judgement based on reason. It involves taking a good look at a situation devoid of bias, distortions, partiality or other forms of prejudice and it also requires ability. She expresses further that critical thinking is an objective analysis and evaluation of an issue in order to come up with a sound judgement or an informed opinion. It results in re-awakening of the intellectual and boosts the ability to solve problems. It is a phrase that can answer questions as well as question answers. Thinking itself involves a combination of skills, which may not be limited to observation, analysis, interpretation, reflection, evaluation, inference, explanation or problem solving.

Various explanations rendered on the concept of critical thinking suggests the fact that, it is a high level of intellectual behaviour required by individuals who seek or who are meant to rise above being mere consumers of knowledge to becoming creators of knowledge and ideas. It also entails going beyond what is given by evaluating facts that surrounds an issue or idea on basis of reason, evidence, relevance and alternative viewpoints (Jabaar, 2017). Indeed, critical thinking involves skills and abilities of reason, a cluster of dispositions, habit of mind and character traits.

Concept of Creative Thinking

Some scholars see the issue of critical and creative thinking like discussing a chicken and egg evolution. While some are of the view that critical thinking leads to creative thinking, others think that the reverse is the case yet some others reasoned that critical and creativity thinking conjoin together.

It takes creative thinking to bring about something new, create or invent ideas or things, especially in an artistic context. To think in a creative way guarantees the generation of new ideas or objects that are useful to curb perennial educational problems. To do this, passion and commitment are required. Some scholars are of the view that creative thinking is part of critical thinking in the sense that there could be no critical thinking without the production of something new or raising a solution that possibly would solve a challenge whereas some other scholars consider the skills involved to be different. One logical point is the fact that critical

thinking remains a process which contributes to, or assists to foster creativity while creative thinking by way of idea, product or behaviour serves as another beginning point of critical thinking. This conjoins with the view that critical thinking answers a question as well as questions the answer. Creativity or creative thinking is first a process in the mind (Olaniyi & Abolade, 2017).

Whitehead (1930) avers that creativity or creative thinking remains an act of producing something novel, original or unique. That which is produced which should be regarded as creativity should be new, not imitation but especially different. To this end, Ogunyemi (2017) corroborated such view by stating elements of creative thinking as, but not limited to openness, autonomy, expertise, versatility, sensitivity, flexibility, intelligibility and exploratory behaviour. From the above elements, it goes on to suggest that the concept of creative thinking does not easily lend itself to definition.

In the view of Ajaezu (2017), creative thinking is the process of generating new ideas which deal with learning to generate and apply novel ideas in specific contexts, seeing existing situations in a new way, identifying alternative explanations and making new connections in order to arrive at a new useful outcome. It is a term that goes beyond a mere mastery of the art or science but involves bringing something novel with the knowledge of arts and sciences acquired. To Umar (2017), creativity is the act of turning new and imaginative ideas into reality. It involves

the perception of the world in new ways, to find hidden patterns, to generate solution, This suggests in affirmative that creative thinking involves two processes such as thinking or having a mental image and turning such image into something real and practical capable of meeting human need.

In a further conception, Csikszentmihalyi as cited Risikat and Akogun, 2017 avers that creative thinking involves any act, idea or product that changes an existing domain, or that transform an existing domain into a new one. This suggests that for something to be creative, it should have value or be appropriate to the cognitive demands of the situation. Odionye and Nnodim (2017) are of the view that creativity is a thinking skill that can be developed by way of training when an individual understands and possesses the characteristics traits. Some other traits they advanced which creative thinkers have are innovation, invention, originality, novelty and problem solving.

Umar, (2017) regards creative thinking as acting on ones ideas. To him, when an idea is conceived in the mind, one is imaginative or has a critical thought but when an effort is made in turning or acting out such ideas, it moves from critical thinking stage to creative thinking stage. Olaniyi and Abolade (2017) in their perception consider creative thinking as the generation of something new in an environment which is first a process in the mind different from the physical product but eventually turned such product into reality. By this, efforts are made to turn the product already in the mind into reality

which eyes could see, and hands equally could touch.

Creative thinking guarantees an individual to turn out new things without repeating what other generations or nations have been doing. This anchors on the attitude based on the ability to accept change. Of course, the new thing for which people are expected to accept should have more value to what have been existing. When people object changes when they are better compared to what already exist, invariably, they object creativity. It involves a new way of thinking that is capable of solving educational or life problems. To this end, Osiyerni (2017) posits that a person must fulfill three requirements to be called creative. These three requirements are: (a) that he is able to make some product, (b) that this product will bring about a change in the existing system, (d) and that this change will be valuable for the domain in which it was created.

In the bid to solve the vague nature of the concept of creative thinking, Osiyerni (2017) advanced five univocal descriptions of the meaning of the word creativity as:

- The ability to produce something new which did not exist before.
- What is produced as a result of a sudden and unexpected cognition or perception and causes surprise or wonder.
- That which is unpredictable or does not obey the known expected rules.
- What is produced under free conditions spontaneously, as a result of self-expression.
- The ability to produce ideas or responses that are statistically

infrequent for the population of which the individuals are a member.

On the point that creative thinking must involve “originality”, that is, something novel or unconventional in some more or less striking way. Ogunyemi, (2017) expressed that Dearden (1975) disagrees with Whitehead (1930) and Dewey (1938) that creativity has to be “original”. Rather, he posits that it can also be shown in elaboration upon and variables in a broadly fixed traditional form, and in radical innovations. This kind of reasoning was supported by Ebuta, (2014) who avers that creativity involves thinking divergently.

As a construct, creativity deals with people and their works, the advancement of novel ideals that tackle existing needs or problems of the moment. Nature has endowed man with creative abilities which does not suggest that it is the exclusive reserve of a particular discipline. People of various disciplines who become creative in their thinking turn out new ways of behaviour, ideas or products into a given society. Enemuo and Mbaji (2017) aver that for something to be called creative, such thing in effect should be something that has not been done or known before, belonging to such category of works that attract patent rights under any nation’s intellectual property right laws.

It is reasonable that the Patents and Design Act of the Laws of the Federation of Nigeria 1990, sections 1 and 2 of the Act provide that creative works are works that are patentable. An important point to ruminates is, must all creativity be patentable? Some of those works that have

been adjudged as creative that have not receive Patents right due to its trivial nature, should they not be regarded as such? Well, Patentability requirement suggests that such works should have novelty, usefulness and non-obviousness. It should be noted that it is important that one gets patent right over one’s invention or creativity, protect one’s intellectual property, which becomes one’s act or matter. Such works, whether patent rights have been received over them or not, remain creativity in so far as they are useful to serve some needs and are new altogether (non-obviousness). In other words, ideas, works or actions could be regarded as being creative without patent right on them but receiving patents right remains a better proof of a creative work.

Creativity in the view of some scholars is regarded as a child of problem situation, borne out of challenge to which no remedy or solution is handy. And owing to the fact that not all men are creative, it goes to express that creativity is not an innate (inborn) trait but something which crops up owing to some condition. Naiman (2016) expresses that some of the conditions that encourage creativity are: opportunity, motivation/encouragement, training and sustained practice. According to Henton and Walesh as cited in Onwuka, Enemuo and Mbaji, (2017), creative thinking deals with series of dimensions or attributes of an individual’s ability to produce valuable ideas, or novel and workable tasks, or a unique talent, or to use imagination. Creativity forms the barometer for measuring how critical and creative a person is.

It should be noted that creative thinking as a construct lacks generally accepted definition. But then, it involves a kind of thinking that translates our unique gifts, talents and vision into new external reality. Bolaji (2018) emphasizes on willingness of creative people as the single criterion that matters most. To Cropley (2001), creative thinking is a cognitive process that leads to an original and adaptive insight, idea or solution, making it essential of all human resources and skills. Creative thinking emphasizes on the ability to make or bring about something new into existence which could be new solution to a problem, new method, device or artistic work. This in other words, conveys the notion of new concepts, new designs, new opportunities, new products, and new behaviours and so on. It is a kind of habit of mind that releases man from old way of thinking, behaving, and appearing. It helps any given society to have a steady progress.

Traits and Attitudes that Govern Critical and Creative Thinking

The traits and attitudes (characteristics) that are akin to critical and creative thinking are classified as mental or personality traits. They are mental traits when they involve: imagination (conceptualization. Visualization, seeing beyond the presents), thinking styles (ways of processing information and judging ideas), experimentation (trying out things) and logical thinking (systematic reasoning). On the other hand, they are personality traits when they involve: Originality (being new and genuine), independence (engaging in self-enquiry), risk taking (willingness to fail and start

afresh), objectivity (not influenced by personal interest), energy (strength with ambition and passion), curiosity inquisitiveness (eagerness to discover the unknown), insightfulness (clear and accurate judgement), readiness to try new ways, persistence, and open-mindedness in questioning ideas and assumptions rather than accepting them at face value.

Further characteristics of critical and creative thinkers are that they are always skeptical; self-guided and self-disciplined, reflect about possible consequences; live a reflective life; fair in decisions, curious to know-why, how and what; likes to separate facts from opinion; investigate different opinions: analyze; understand and evaluate an argument, logical have desire to know the truth and are so inquisitive to know for knowing sake.

Development of Self Knowledge

There is knowledge of the world external to one's own self and there are self-knowledge that is, knowledge about oneself. According to Jabaar (2017:88), "Self-knowledge refers to knowledge about a persisting self, its ontological nature, identity, conditions and character traits. It means perceiving and understanding of one's particular mental state which includes one's dispositions, desires, strengths, weaknesses, sensations, biases, prejudices and so on". Self-knowledge is arrived at through introspection, which is, 'looking within' or inwards.

Some other philosophers like Gareth Evans according to Jabaar (2017) claims that self-knowledge requires the opposite of introspection. They opined that we get

our own thought by looking outwards to the state of the world they represent. Self-knowledge is more akin to introspection than its opposite as Gareth Evans and his cohorts had expressed. It is worthy of mention that self-knowledge may not be achieved in the same way or degree in all individual; rather some are more self-aware than others. The starting point in the process of developing critical and creative thinking is self-scrutiny, which leads to self-knowledge.

Benefits of Critical and Creative Thinking

It is indubitable that critical and creative thinking are capable of promoting tolerance, understanding, empathy and respect for all. They bring about creative ideas, development of institutions, curb extremism and irrational emotional outburst, rational religious beliefs and less susceptible to media propaganda (Karfe, 2017). In addition, Pinta (2017) was explicit when she avers that the benefits of critical and creative thinking are both to the individual and to the society. Moreover, the quality of our lives and that of what we produce, make or build, depends precisely on the quality of our thought. They clear the mind of false assumptions by so doing making the mind receptive of real knowledge.

Equally too, critical and creative thinking as Umar (2017) avers guarantee general thinking skill which is an asset for any career. They improve new knowledge economy, the way we express our ideas. Creativity particularly provides the tool for the process of self-evaluation. It would be in exhaustive articulating the benefits of

critical and creative thinking as their benefits can stretch out to inanimate being, our ecosystems and to a large extent our educational institutions would develop the more. Students are prepared to cope with life and be self-reliant.

Implications of Critical Thinking for Educational Practices in Nigeria

Invariably, the roles teachers and educational process play in the educative processes of a learner gear toward the promotion and cultivation of critical and creative thinking. Also, self knowledge needed in the teaching of critical and creative thinking would be employed and by so doing equip such learners. Teaching and learning would go beyond mere depositing of fixed knowledge in the mind of learners thereby making them active learners, on the other hand, emphasis in teaching and learning would also change. Examination questions would be those questions that are capable of strengthening students' thinking abilities so also in evaluation. Such questions promote critical and creative thinking than questions such as list, state, mention, itemize.

To realize critical and creative thinking, learning and evaluation requirements would go beyond "knowing that" to the extent of 'knowing why' and 'knowing how' as one can observe in our educational practices in Nigeria. Through reflective thinking, teaching would be focused on the learner as they are made to discover how the explanation or knowledge of a construct affects their personal life and their immediate community. Education canvasses for change and self-knowledge, critical and creative thinking can guarantee

this change and self-knowledge. Critical and creative thinking increase the ability of the learner in thinking fast and by so doing enhance the educational success of such learners, the teacher and the school at large.

Through critical and creative thinking, the practice of forcing or influencing a learner either by his or her parents or teachers would be deemed obsolete. Career guidance as a service in our schools, would be resuscitated through the promotion of critical and creative thinking. This will also lead to taking learners seriously by involving them actively in teaching and learning. To a large extent, academic success is dependent on students' self-knowledge as it bears on the ability to learn effectively (Jabaar, 2017). Educational institutions would go on to foster critical and creative thinking skills, as expressed by Chibueze and Ogbe (2017). They are one of the ways educational institutions treat learners with respect to their persons, prepare such learners for effective adult life, that is, life-long skills; develop rational skills in them which results in personal and public commitments from learners and staff. Through critical and creative thinking skills, schools invariably prepare learners for occupations as to cope with life. Our curricula would be strengthened as they undergo changes to reflect critical and creative thinking as well as improve teaching methods.

Any education system that takes critical and creative thinking seriously helps to transform students, that is, intellectually and morally, and by so doing bring about

creative attitudes, thus, creating in the students, high ability to think. Over time, practical skills acquisition becomes part of the students' life as thinking that could produce practical result would be part of the students' live. To Olorunmota, Olorunmota an Akinbi (2017), critical and creative thinking would engender excellence as most students would prefer to avoid immoral behavior for meaningful life since the tool to achieve good name will already be at their disposal. The fear of failure in examination will also naturally disappear from students' heart. And social vices and other problems in higher education will naturally reduce if not almost disappear since the cause of such vices are usually associated with fear of failure, domination and lack of confidence which students have in themselves. Critical and creative thinking to a great extent would help citizens to be logical, rational and take good look at situations without being bias and partial.

In a nutshell, critical and creative thinking would prepare students to cope with the modern times, develop their thinking processes to provide solution to problems, reduce errors and mistakes, guarantee steady progress, ensure quality to things and raise rational mind needed for moral development.

Conclusion

Critical and creative thinking are dire need of our time. This is assisted through self knowledge that strengthens individuals to understand what they are capable of doing. Critical and creative thinking serve as panacea to unemployment being faced by many graduates. Moreso, the

instrumentality of critical and creative thinking would conduce in novel ideas and products capable of enriching human life, the educational institution and bring about peace in our societies ridden by violence and crises. Indeed, critical and creative thinking skills should be skills for all irrespective of one's discipline.

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