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## Fostering critical thinking among secondary school students for sustainable development in Nigeria

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### Abstract

This paper aims to explore how critical thinking could be fostered among secondary school students for self-realization, self-actualization, and self-reliance for sustainable development in Nigeria. This paper examines critical thinking as reflective thinking and points out some characteristics of critical thinking. The paper analyses some issues in critical thinking and contends that critical thinking could be rehabilitated in Nigerian secondary schools. The paper discusses the need for fostering critical thinking among secondary school students in Nigeria. It also indicates some of the techniques for fostering critical thinking. The paper reveals that critical thinking could help Nigerian secondary school students to be self-reliant before and after their graduation. This paper concludes that critical thinking if fostered among secondary school students in Nigeria, could launch the students into the realm of sustainable development.

**Keywords:** Critical thinking; self-actualization; self-realization; self-reliance; sustainable development.

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## 1. Introduction

Critical thinking has implications for learning in general. Its relevance in schools ranges from enhancing creativity, innovation, problem-solving, reading, and writing competencies to preparing students for life beyond the classroom (Alabbasi et al., 2022). However, it seems as if it has not been adequately fostered among Nigerian secondary school students. It appears as if many of these students are not aware of their natural strengths (abilities) and their weaknesses because they cannot think critically. This is a lack of self-realization. Lack of self-realization could be an inhibition to self-actualization. In turn, a lack of self-actualization may hinder self-reliance, which in itself could be instrumental in achieving sustainable development. For instance, after their graduation, instead of trying to be self-established, many of these students look up to the government for white-collar jobs.

Thinking, in itself, may be interpreted simply as a flow of thought, or a sequence of unrelated thoughts. Therefore, much of our thinking, if left to itself, may be incoherent, inconsistent, and, consequently, meaningless. Thinking seems to be a natural phenomenon to every man. This is why we may not be able to use 'thinking' interchangeably with 'critical thinking'. This is also corroborated by Hogans's (2016) claim when he states that critical thinking does not connote mere mental gathering of information. In other words, a person who knows a lot of facts and has a good memory may not be good at critical thinking. By implication, critical thinking does not seem to be common with every man. Therefore, critical thinking may be conceived as reflective thinking, which transcends mere thinking. By nature, critical thinking is strategic, skillful, analytical, purposeful, probing, and productive thinking. Some skills are embedded in critical thinking. These skills are known as "critical thinking skills". According to Aboluwodi (2019), and Riswanto et al., (2022) abilities to analyze, evaluate, reflect, and assess are some of the critical thinking skills. Critical thinking skills are a cluster of skills that generally include abilities to identify, define/explain, analyze, critique/criticize, reflect, clarify, probe, question, consider and re-consider, evaluate, and infer. These skills are some of the most important abilities for modern learners that need to be encouraged among secondary school students in Nigeria.

The characteristics of critical thinking, according to Bhasin (2020), include observation, inquisitiveness, objectivity, meditation, analysis, identification, inference, open-mindedness, and creativity. In other words, abilities to observe, probe, analyze, and infer objectively are some of the characteristics of a critical thinker. Heick (2021) also highlights some indicators of critical thinking. They include changes in beliefs and stances, claims made, intellectual divergence, inquiry-driven learning, and learning-driving questioning, among others. For Lok (2021), observation, objectivity, identifying biases, assumption, and inference are some of the characteristics of critical thinking. By implication, a critical thinker is not rigid or stereo-typed, does not believe he knows everything, and is always ready to learn. However, it must be noted quickly that one may not necessarily have to manifest all these qualities to be a critical thinker. Any individual who displays a few of these qualities habitually may be safely described as a critical thinker. It must also be noted that it takes having the critical thinking disposition for an individual to have the critical thinking skills developed in him/her.

### 1.1. Purpose of study

This paper examines critical thinking as reflective thinking and explains some characteristics of critical thinking. It discusses the need for fostering critical thinking among Nigerian secondary school students.

## 2. Methods and materials

This is a qualitative study that discusses the need for fostering critical thinking among Nigerian secondary school students. The paper points out some techniques for fostering critical thinking among students. This paper explains development as systematic growth, advancement, or progressive change. The paper argues that critical thinking could be rehabilitated in Nigerian secondary schools. This paper concludes that critical thinking if fostered among secondary school students in Nigeria, could enhance self-realization, self-actualization, and self-reliance among the students for sustainable development in the country.

### **3. Results**

#### **3.1. Critical thinking dispositions**

Dispositions may be interpreted as natural tendencies, innate habits, or endemic inclinations. One may also see disposition as an intrinsic habit, or a natural internal drive. A man's disposition toward something may be viewed as his inclinations toward that thing. Kilmen (2014), indicates that disposition is to do something in certain circumstances. Hendrix (1999) opines that dispositions are inclinations and habits of mind that benefit productive thinking. Bassham et al., (2011), conceives dispositions as tendencies or inclinations, especially when habitual. Kilmen (2014), argues that an appropriate disposition is necessary to be a critical thinker.

It appears as if critical thinking dispositions are innate abilities, which may be encouraged in an individual. Hendrix (1999), claims that critical thinking dispositions are abiding tendencies towards distinct patterns of thinking behaviors. That is, critical thinking dispositions have to do with the natural habitual tendencies to think critically. Marinela (2009) asserts that "critical thinking dispositions refer to one's tendencies toward critical thinking behavior such as seeking clarity and being inquisitive". Ennis (1996) describes critical thinking dispositions as hidden qualities. "Critical thinking dispositions are not obvious by inspection. Something must happen so that the dispositions be revealed" (Ennis, 1996).

Willingham (2007) affirms that "if you remind a student to look at an issue from multiple perspectives often enough, he will learn that he ought to do so". In light of the foregoing similar observations by Ennis (1996); Mill (1873) and Willingham (2007), one may want to posit that critical thinking disposition is inherent in every normal human being, although it could be latent. That is, there may be the need to evoke, arouse, or activate it in an individual. It follows, therefore, that the tendencies or inclinations to think critically could be silently inherent in every normal student. A justification for this claim may be found in Whitehead's (1966) submission that "the mind is never passive; it is a perpetual activity, delicate, receptive, responsive to stimulus". Following Whitehead's submission here, it may not be fallacious to describe a perpetually active, receptive, and responsive mind as a mind that tends to think critically.

It must be noted that there seems to be an interplay, or a relationship, between the disposition to think critically and critical thinking skills. As observed by Walker (2003), many believe that to develop critical thinking skills, the disposition to think critically must be nurtured as well. It may be of interest to note that critical thinking skills combined with soft skills are likely to make an individual a better personality in society.

#### **3.2. Soft skills**

It appears as if certain skills are required for any individual to be successful in his/her daily endeavor. That is, such an individual must possess social-emotional intelligence and some personality traits. It is what every learner must possess to become aware of his/her environment. These skills are likely to make him/her to be more responsive and responsible. In light of this view, Cimatti (2016) notes that soft skills could be explained as behavioral life skills that are applied responsibly and appropriately for personal affairs. In other words, these behaviors are morally acceptable, and the skills can be used to handle either personal or societal problems (Vasanthakumari, 2019). These skills could also be acquired through personal experience or facilitation as opined by Vasanthakumari (2019). Kenton and Abbott (2019) describe soft skills as character traits and interpersonal skills that constitute or determine the nature of a person's relationships with others. For Kenton and Abbott (2019), soft skills have more to do with who people are rather than what they know. This means that we can describe soft skills as part of individuals' personalities. They further cite some examples of soft skills, which include high-level strategy and leadership abilities (Lyons et al., 2020). Some researchers have asserted that soft skills include social and communication skills, high intelligence, and emotional stability that enable people to explore and interact well with their environment.

Soft skills may be described as the less tangible and non-technical abilities that employers seek from candidates, applicants, or employees. Generally, soft skills include communication, leadership, dynamism,

flexibility, teamwork, negotiation, management, decisiveness, and conflict resolution abilities. Eastern Kentucky University (2019) compiles some soft skills, which include responsibility, integrity, flexibility, and courtesy. In light of the foregoing, soft skills seem to be the traits or abilities that define who a man is. It must be noted that both the critical thinking skills and the soft skills are naturally problem-solving.

### **3.3. Issues in critical thinking**

Complexity, abstraction, intricacy, and difficulty in measurement are some of the issues in critical thinking (Vázquez-Parra et al., 2023). These seem to be some of the peculiar features of critical thinking. A higher order thinking, according to Paul and Elder (2007), it could be said that critical thinking is complex and abstract. As such, determining, measuring, and/or assessing it may be difficult. The natural complexity and intricacies, and the difficulty in determining, measuring, and/or assessing critical thinking have posed serious concerns over time. Besides, ascertaining the level of progress while fostering critical thinking among students is usually rigorous. Fostering critical thinking generally requires much practice and varying thinking techniques. Many people may consider these features as some of the problems of critical thinking.

According to Bailin, (2003), “critical thinking is beyond rehabilitation”. Perhaps the conclusion here is premised upon the idea that critical thinking is abstract, coupled with the fact that its level or quality in students cannot be accurately measured, determined, or ascertained. He could have also observed that it is not possible for someone to possess and habitually demonstrate all the ever-identified critical thinking skills with mastery.

Abrami et al., (2008) point out that the issue of measuring critical thinking is a complex one, and that “even when researchers explicitly declare that they are assessing critical thinking, there remains the major challenge of ensuring that measured outcomes represent the construct of critical thinking according to the operational definition adopted by reviewers”. Does it follow that critical thinking cannot be fostered, determined, or measured in an outright sense? One may agree, upon reflective consideration, that complexity, intricacy, or difficulty does not imply impossibility.

### **3.4. Approaches to fostering critical thinking**

So far, there is no consensus on a particular approach as the best for fostering critical thinking. In light of this, one may describe the approach to fostering critical thinking as eclectic. That is, a combination of techniques may be employed in fostering the skill.

Creating and maintaining an existentialist classroom situation may be considered an effective technique for fostering critical thinking among students. In philosophy or philosophy of education, existentialism may simply be described as a theory of existence and essence. It is the philosophy of *being*. Button (2021), describes existentialism as the philosophy of existence. Arogundade (2003) contends that the idea of existentialism borders on the point of man’s existence, and the purpose of human existence. That is, existentialism is premised upon the idea that existence precedes essence. Existentialism generally emphasizes self-discovery/self-realization and self-actualization. Therefore, existentialists hold the view that education should help the educator (the learner/child) to search for, discover who he is, and find out what he can do and his limits. This is self-realization. For a student to be able to achieve this, he must be given reflective thinking (Simonovic et al., 2022). This view may be buttressed by Brunetti’s (2020) claim that an existentialist classroom situation is capable of encouraging flexible thinking and innovative thinking among children. Besides, existentialism, according to Arogundade (2001), recommends the Socratic method of teaching in schools. We should not forget that the Socratic method in itself is an effective technique for fostering critical thinking. This technique involves regular questioning to find a suitable answer. It also engages the learner in reasoning.

Promoting ‘argument culture’ in the classroom may also be effective in fostering critical thinking among students. Activities in this type of classroom situation are often characterized by discussions and debates. This technique may involve critical negotiation, constructive confrontation, and credible antagonism skills. Sometimes,

argumentation (making claims and refutation) too may be directly involved. In this kind of situation, controversial issues/topics are thrown open in the class and students are given the liberty to take position(s). In the course of the discussions, negotiations, and arguments, students naturally demonstrate logic and criticality. When this is observed regularly, thinking critically may become the students' habit.

Democratic classroom situation is another technique that is capable of provoking critical thinking among students. This involves keeping personal authoritative opinion(s) away from students during the teaching-learning process. In this case, the teacher does not just do the teaching while the students do the listening. The teacher does not teach independently of the students' opinion(s). The teacher does not occupy an authoritarian all-knowing position in the class and constitutes the students into mere receptacles into which he could empty himself at will. When the teacher superimposes his opinion on the students, critical thinking dispositions may remain latent in them. Although the teacher may express his opinion in the class, he does not superimpose it on the students. According to Dewey and John (1933), the teacher should not unduly influence the students to accept his position or any basis of authority because that would not make them independent and capable of thinking. Rather, it keeps them from really thinking and, so, from growing mentally as they should.

Classroom discussions and debates often stir students' critical thinking skills. Therefore, they may be considered effective factors for promoting critical thinking among students. As it is difficult, if not impossible, to divorce discussions from debates in a classroom situation, one may want to treat them together as a technique for fostering critical thinking among students. In relation, giving *written assignments* is a technique that encourages independent work, and independent work, in turn, may promote critical thinking. For instance, students may be asked to compose a poem on a particular item. Their opinions and constructions may differ, but they are likely to still express a single central idea as much as they are writing on the same item.

Blended learning is another approach that could effectively aid the fostering of critical thinking among students. Blended learning is an approach to education that combines online educational materials and opportunities for physical interactions. It is a style of education in which students learn via electronic and online media as well as traditional face-to-face teaching. A blended learning approach could aid the fostering of critical thinking among students. Perhaps upon reflection on its possible effectiveness, Schaeffler (2018) reasons that blended learning may help in fostering critical thinking among students. This classroom situation is likely to enhance students' metacognitive development (Salcines-Talledo et al., 2020).

### **3.5. Fostering critical thinking in secondary schools in Nigeria**

As can be observed, one of the biggest problems confronting secondary school education in Nigeria is that it is mostly theoretical. It seems as if the students are not always prepared for the actual practice and experience of what they are taught on paper. This practice of theoretical learning does not seem to fully encourage critical thinking dispositions in the students. The empirical subjects like Physics and Mathematics that could enhance critical thinking among the students seem to be designed for students simply to pass examinations to move to the next higher class. It seems as if these few empirical subjects are not targeted at fostering critical thinking among the students.

Unlike what obtains in Nigerian secondary schools today, the fostering of critical thinking seems to be in place, although in small measure and skeletally, in some Nursery/Primary schools in Nigeria. This is carried out through the introduction of such subjects as Verbal Reasoning/Qualitative Reasoning and Quantitative Reasoning. These two are subjects designed to activate the critical thinking dispositions that might be latent in the pupils. Exposure to either verbal reasoning/qualitative reasoning quantitative reasoning, or even both, at the nursery/primary school level of education, is not enough to help students develop critical thinking. They are supposed to be exposed to learning content, activities, and methodologies that are capable of arousing critical thinking in them at the secondary school level too.

Rehabilitation may be described as restoration or being accorded functional status. For Oyetakin and Kayode (2021), rehabilitation is “the process of helping a non-productive...towards the restoration of the desired standard...”. They also contend that the rehabilitation process involves the combination and coordination of measures toward moving the entity being rehabilitated to the height of functional abilities. Given the above, it may be safe to conceive “rehabilitation” as activating or setting on the path to being functional. Therefore, to rehabilitate critical thinking in Nigerian secondary schools is to accord it the due recognition, activate it, and set it on the path to being functional in the schools.

Critical thinking may not necessarily be structured as a subject to be offered in these secondary schools. It may not even be designed as a topic to be taught. However, activities in the schools could be designed to naturally arouse and promote critical thinking among the students in the course of their studies. To this end, the curricula may be designed with the placement of emphasis on certain learning content and activities that can easily provoke critical thinking in students. If this is done, critical thinking is likely to become rehabilitated in the schools.

### **3.6. Why critical thinking?**

It appears as if a major reason Nigeria seems to be backward among the countries of the World in creativity, innovation, and invention today is the lack of critical thinking among the Nigerian youths. For instance, Areoye (1982) has argued that the African race is more of an imitator of other races in terms of civilization instead of thinking critically and coming up with genuine contributions to global civilization. In the same spirit, Aneke (2013) asserts that Africa, as a continent, is backward because Africans seek pleasure and comfort, expending their energy in the wrong directions, while others explore their critical thinking disposition for invention, creativity, and innovation. Talking of Africa, Nigeria is not exempted. The Nigerian youths are not exempted either. One could infer from Areoye's (1982) and Aneke's (2013) similar views here that critical thinking ability is a necessity for sustainable development. Since Nigerian youths cannot be exempted from the “Nigeria case”, critical thinking needs to be fostered among secondary school students in Nigeria. However, it must be noted that self-realization, self-actualization, and self-reliance are prerequisites for launching the youths into the realm of sustainable development. Critical thinking could be instrumental in achieving these two, too.

### **3.7. Critical thinking for self-realization**

Self-realization may be put, simply, as the discovery of one's inner resources or potentials. This seems to align with Socrates' philosophical idea of “man, know thyself”. It also appears as if self-realization is in line with the view of the idealists (Socrates, Plato, Hegel, Kant, and Descartes, among others) that education should develop the self. This is because knowing the “self” is required for developing it. Arogundade (2001) describes self-realization as discovering who you are, what you can do, your limitations, and how you can fit into the society to which you belong.

Among the Nigerian secondary school students are potential philosophers, artists, writers, entrepreneurs, craftsmen, and women. However, it could be argued, from their handling of life issues, that many of these youths do not know themselves. This could be a result of their inability to think critically. It takes thinking critically to realize one's potential. In this vein, Deane and Patrick (2018) have reasoned that critical thinking may assist individuals in assessing their strengths and weaknesses so that they know what they have to offer and where they need improvements. Therefore, by implication, if critical thinking is fostered among Nigerian secondary school students, there is the likelihood that they become self-realized, and, consequently, more useful to themselves and their society at large.

### **3.8. Critical thinking for self-actualization**

Self-actualization may be described as becoming what one can be. This is moving from “been” to “being”. Self-actualization is usually preceded by self-realization (self-discovery). That is, discovering before actualizing. Probably this has made Perera (2020) aver that “the attainment of self-actualization involves one's full

involvement in life and the realization of that which one is capable of accomplishing". Relatedly, Komninos (2019) holds the notion that Maslow's quote "What a man can be, he must be" refers to self-actualization. In the same spirit, Cherry (2019) conceives self-actualization as achieving one's full potential. It may be safe, therefore, to describe being self-actualized as becoming that which one can become. For Maslow, as cited in Cherry (2019), having frequent peak experiences characterizes self-actualization. Maslow, in furtherance, clarifies that "peak experiences" involve feelings of ecstasy, fulfillment, and self-esteem. Thus, we may want to conclude that self-actualization is the process by which someone attains his full potential or harnesses his inner resources toward fulfillment. Being self-actualized is likely to be a path to being self-reliant.

### **3.9. Critical thinking for self-reliance**

One of the problems in African countries, especially in Nigeria appears to be a lack of critical thinking to actualize self-reliance. Nigeria appears to be a country where the majority of the citizens depend on the government for financial breakthroughs. This seems to have brought an economic setback to society, thereby leading to poverty. This is the more reason, why Aboluwodi (2008) avers that any education that does not prepare the learners for self-reliance is not worth called education. Students should be able to think critically to be self-reliant. To be self-reliant is to be able to survive or earn a means of livelihood without necessarily depending on an external force or another entity. Self-reliance seems to come after self-actualization. According to Moore (2019), self-reliance may be described as depending on internal resources to live a life with meaning and fulfillment. This is not too common among Nigerian youths. Instead of being self-reliant, many of these youths are busy searching for white-collar jobs. The irony is that contrary to their expectations, employment opportunities with governments and certain organizations are not easy to come by these days. This argument may be supported by Faruk's (2005) declaration that "with the depressing economy worldwide, white-collar jobs are now very difficult to come by". However, if fostered adequately among secondary school students in Nigeria, critical thinking could be instrumental to their being self-reliant.

Given that they have probably realized and actualized themselves by thinking reflectively, the students may be able to harness and depend on their internal resources for survival and fulfillment, before and after their graduation. They may not necessarily depend on government, organizations, or other individuals for survival or means of livelihood. The relationship that exists between self-reliance and sustainable development is reflected in Ibukun (2018), that "a nation, therefore, is self-reliant when it takes pride in her traditional values and protects them for sustainable development". One may want to agree, therefore, that self-reliance and sustainable development intersect.

### **3.10. Sustainable development**

Ordinarily, development may be interpreted as improvement, progress, or advancement. It may also be explained as systematic growth or positive/progressive change. Harriss (2013) declares that one of the ideas the word "development" connotes in the English language is "growth". In general, it seems as if the idea of development is often established upon increase or rise in level, quality, or quantity. Viewing development in human society as a many-sided process, Walter (1983) asserts that "it implies increased skill and capacity, greater freedom, creativity, self-discipline, responsibility, and material well-being". About Walter's (1983) assertion here, Lawrence (2013) holds the notion that invention and improvement are indications of development. Thus, sustainable development may be described as systematic improvement, progress, or advancement for sustainability.

The world's population increases every new moment. With the increase and environmental exploration for survival, people face certain global challenges. These challenges include climate change, hunger, drought, flood, poverty, and extreme weather. It seems as if the goal of sustainable development is to find lasting solutions to these challenges without depleting the future. Burton (2021) points out that, at inception, sustainable development initiative in the United States of America was targeted at meeting the needs of the present without

jeopardizing the ability of the generations to come. The UN World Commission on Environment and Development Report, (as cited in Davis (2016) & Burton, (2021), has it that “sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs”. In line with this report, Yosef (2008) reasons that sustainable development is concerned with the “tension between the goals of economic development and environmental protection”. It follows, therefore, that sustainable development entails fixing the present, with a particular reference to meeting economic needs, without harming the future. For secondary school students in Nigeria to be able to fix the present without jeopardizing the future, they must be given to thinking critically. Hence: the need to foster critical thinking among the students.

### **3.11. Inhibitions to sustainable development**

Sustainable development, as a global movement, could have been encountering certain clogs since its inception. For instance, it could be argued that the movement has not been fully deployed in some countries of the world, particularly the underdeveloped and the developing ones. According to Iman-Tamin (2012), some of the inhibitions that seem to plague sustainable development in many countries are mismanagement, abuse of national resources, and environmental challenges. He equally contends that sustainable development may not be achieved within the shortest period due to the poverty rate that has crawled into many developing and underdeveloped nations. International Labour Organization (2008) substantiates Iman-Tamin’s (2012) claim when it asserts that the inhibitions that affect sustainable development are likely to be environmental, economic, and social issues, that are caused as a result of human ignorance and negligence.

Apart from the challenges mentioned above, Ogujiuba et al., (2013) state that sustainable development of a particular society can be affected negatively when natural capital, that is, the total of nature’s resources is used up faster than it can be replenished. They opine that sustainable development seems to lack proper attention in the majority of the countries that are faced with the challenges. As a result of this, it appears difficult to achieve sustainability. One may also want to hold the notion that a lack of social consciousness and critical thinking, coupled with inequality, among the citizens in African countries, with a particular reference to Nigeria, is likely to hinder sustainable development (Danja et al., n.d). Relatedly, Dauda and Oyeleke (2021) point out that high poverty and inequality in their numerous practices constitute drags on sustainable development because development has always been a problem in unequal and poverty-ridden societies. In furtherance, Dauda and Oyeleke (2021), argue that if social cohesion and environmental factors are not tackled through reflective thinking and social consciousness, sustainable development may remain a mirage. In light of this, it may be wise to conclude that for any society or nation to achieve sustainability, poverty, and inequality have to be given maximum attention. It must be noted, however, that these identified inhibitions are not enough to discourage any individual or nation of the world from subscribing to the movement or trudging its path.

## **4. Conclusion**

Although critical thinking ability is of immense importance in general, this paper is concerned with how the skill could be fostered among secondary school students to enhance self-realization, self-actualization, and self-reliance for sustainable development in Nigeria. On the ground that critical thinking is globally craved, both within the academia and in workplaces, there is the fear that the army of youths in Nigerian secondary schools may eventually turn out to become the world’s underdog if critical thinking skill is not fostered among them. They may become practically underdeveloped. Meanwhile, it takes a developed citizenry to have a developed nation/country. By implication, the Nigerian society, as well, may not develop as expected. This is because the students if they have been fostered with critical thinking, may be able to develop themselves. In turn, such developed youths could be instrumental in the development of the country in general.

The academic norm that emphasizes marks and certification at the expense of skills, abilities, and competencies in Nigerian secondary schools needs to be modified. Skills, abilities, and competencies deserve to be acknowledged, centered properly, compensated accordingly, and allowed to constitute part of the paradigm



for determining students' success or promotion in the schools. The system of grading students based on recitation or reproducing learning content during examinations in the schools also needs modification. At times, what a student has reproduced in an examination might not be a true reflection of his ability. He could have done that successfully through some hidden dubious means.

Above all, Nigerian schools' curricula planners, as they design the curricula, should endeavor to pay enough attention to the need to accommodate activities that would enhance inquisitiveness, probing, and exploration. This may help the students to naturally become critical thinkers in the course of their studies. By this, the students could discover their strength as well as their limits, become self-actualized, and, consequently, self-reliant. Upon critical examination, one may want to agree that the path of self-reliance intersects with that of sustainable development. In other words, as a matter of logical consequence, fostering critical thinking among secondary school students in Nigeria for self-reliance is just like launching the youths and the country at large into the realm of sustainable development.

## References

- Aboluwodi, A. (2008). *Introduction to philosophy of education*. Akure: Stebak Books and Publishers.
- Aboluwodi, A. (2019). *Critical thinking skills and soft skills*. A classroom lecture delivered on Wednesday, February 27, 2019, at Adekunle Ajasin University, Akungba-Akoko, Ondo State, Nigeria.
- Abrami, P. C., Bernard, M., Evgueni, B., Anne, W., Michael, A. S., Rana, T. & Zhang, D. (2008). Instructional interventions affecting critical thinking skills and dispositions: A stage 1 meta analysis. *Review of Educational Research*, 78(4), 1102-1134. <https://journals.sagepub.com/doi/abs/10.3102/0034654308326084>
- Alabbasi, A. M. A., Paek, S. H., Kim, D., & Cramond, B. (2022). What do educators need to know about the Torrance Tests of Creative Thinking: A comprehensive review. *Frontiers in Psychology*, 13, 1000385. <https://www.frontiersin.org/articles/10.3389/fpsyg.2022.1000385/full>
- Aneke, E. (2013). *Africa blames God*. Ibadan, Nigeria: Spectrum Books Limited
- Areoye, O. (1982). *Black man's dilemma*. Ibadan: Board Publications Limited.
- Arogundade, J. B. (2001). *Philosophical foundations of education for schools and colleges*. Ondo: Ola-Jesu Printing Press.
- Arogundade, J. B. (2003). *Philosophical foundations of teacher education*. Ondo: Ola-Jesu Printing Press.
- Bailin, S. (2003). *The virtue of critical thinking*. Simon Fraser University.
- Bassham, G., Irwin, W., Nardone, H. & Wallace, J. M. (2011). *Critical thinking: a student's introduction* [Fourth Edition]. New York: McGraw-Hill Companies
- Bhasin, H. (2020). *21 characteristics of critical thinking*. Retrieved December 15, 2021, from <https://www.marketing91.com/characteristics-of-critical-thinking/>
- Brunetti, K. (2020). *Critical thinking: We must question and seek existential answers*.
- Burton, L. (2021). *Examples of sustainable development in the U. S.*
- Button, L. J. (2021). *Curriculum Essentials: A journey*.
- Cherry, K. (2019). *Theories of human psychology: 9 characteristics of self-actualized people*.
- Cimatti, B. (2016). Definition, development, assessment of soft skills and their role for the quality of organizations and enterprises. *International Journal for Quality Research*, 10(1), 97-130. <http://ijqr.net/journal/v10-n1/5.pdf>
- Danja, I. I., Dalibi, S. G., Abubakar, S. G. & Normatovich, S. A (n.d). Hindrances to sustainable development goals in Nigeria's built environment: A review of Architects' perception. Retrieved August 8, 2022, from <https://www.academia.edu/36291902>
- Dauda, R. S. & Oyeleke, O. J. (2021). Poverty and inequality: The challenges to sustainable development in Nigeria. *Ilorin Journal of Economic Policy*, 8(2), 1-16
- Davis, S. (2016). *5 Examples of sustainable development*.

- Aghonebarin, D. & Kehinde, D.I. (2023). Fostering critical thinking among secondary school students for sustainable development in Nigeria. *Global Journal of Sociology: Current Issues*. 13(2), 102-112. <https://doi.org/10.18844/gjs.v13i2.8149>
- Deane, A. & Patrick, A. (2018). *Why critical thinking is important (& how to improve it)*. Retrieved February 19, 2021, from <https://bebrainfit.com/critical-thinking/>
- Dewey, J. & John, L. C. (1933). *The educational frontier* (William Kilpatrick, ed.). New York: The Century Company.
- Eastern Kentucky University (2019). *Soft skills*. Retrieved October 9, 2021, from <https://www.ed2go.com/eku/online-courses/soft-skills-suite/>
- Ennis, R. H. (1996). Critical thinking dispositions: Their nature and assessability. *Information Logic*, 18(2&3), 1-9
- Faruk, I. (2005). Education as a tool for self-reliance. *Vanguard*. Nigeria: All Africa Global Media.
- Harriss, J. (2013). Development theories. Retrieved April 4, 2022, from IDL-51544.pdf
- Heick, T. (2021). Characteristics of a critical thinking classroom.
- Hendrix, B. E. (1999). *Critical thinking dispositions: The need for a balanced curriculum in collegiate critical thinking courses*. Boston: University of Massachusetts.
- Hogan, M. (2016). *What are the key dispositions of good critical thinkers?* Psychology Today 1991-2018. New York: Sussex Publishers, LLC.
- Ibukun, W. O. (2018). *Educational development in Africa*. 17, Atanda Street, Sari Iganmu, Lagos: Daroye Publishers.
- Imam-Tamin, M. K. (2012). Challenges of sustainable development in Nigeria: Legal perspectives. [Paper presentation]. Law and Sustainable Development in Africa, 2<sup>nd</sup> Faculty of Law Workshop, University of Ilorin
- International Labour Organisation (2008). Global challenges for sustainable development: Strategies for green jobs. ILO Background Note: G8 Labour and Employment, Minister Conference, Niigat, Japan.
- Kenton, W. & Abbott, B. (2019). *Soft skills*. Retrieved December 3, 2021 from: <https://www.investopedia.com/terms/s/soft-skills.asp>
- Kilmen, S. (2014). An adaptation study of critical thinking disposition scale. *The Journal of Academic Social Science Studies*, 3(1), 22-35. [https://www.researchgate.net/profile/Sevilay-Kilmen-2/publication/337873992\\_An\\_Adaptation\\_Study\\_of\\_Critical\\_Thinking\\_Disposition\\_Scale/links/5defec8092851c836473795f/An-Adaptation-Study-of-Critical-Thinking-Disposition-Scale.pdf](https://www.researchgate.net/profile/Sevilay-Kilmen-2/publication/337873992_An_Adaptation_Study_of_Critical_Thinking_Disposition_Scale/links/5defec8092851c836473795f/An-Adaptation-Study-of-Critical-Thinking-Disposition-Scale.pdf)
- Komninos, A. (2019). *Self-actualization: Maslow's hierarchy of needs*
- Lawrence, G. K. (2013). *Philosophy of slavery*. Lagos: West African Books Publishers Limited.
- Lok, T. D. (2021). *Why so many people lack critical thinking skills?* Retrieved July 24, 2022, from
- Lyons, L., Brasof, M., & Baron, C. (2020). Measuring Mechanisms of Student Voice: Development and Validation of Student Leadership Capacity Building Scales. *AERA Open*, 6(1). <https://doi.org/10.1177/2332858420902066>
- Marinela, R. (2009). *Competencies and capabilities in education*. Cultivating Critical and Creative Thinking Skills in Educational Process Conference, Oradea.
- Mill, J. S. (1873). *On instruction, intellectual development, and disciplined learning*. Retrieved May 15, 2022, from <https://www.criticalthinking.org/pages/john-staurt-mill-on-instruction-intellectual-development-and-disciplined-learning/736>
- Moore, C. (2019). *Self-reliance*. Retrieved June 5, 2022, from <https://positivepsychology.com/self-reliance/>
- Ogujiuba, K. K. Ehigiamusoe, K. U. & Udefuna, P. (2013). The challenges and implications of sustainable development in Africa: Policy options for Nigeria. *Journal of Economic Cooperation and Development*, 34(4), 77-112. <https://search.ebscohost.com/login.aspx?direct=true&profile=ehost&scope=site&authtype=crawler&jrnI=13087800&AN=95811579&h=HKnnRvalVJ8WWdRDcyYJ53wGRC58BkOBKs%2BIR6%2FwP2EgnBWM7srmlMImGRZaD79quVpe5LYREicAOuJ0kOiuTPQ%3D%3D&crl=c>
- Oyetaikin, A. & Kayode, S. J. (2021). *History and development of education: An introduction*. Lagos: Daroye Publishers.
- Paul, R. & Elder, L. (2007). *The miniature guide to critical thinking concepts and tools: The foundation for critical thinking*. Retrieved July 11, 2022, from [https://www.criticalthinking.org/files/Concepts\\_Tools.pdf](https://www.criticalthinking.org/files/Concepts_Tools.pdf)

- Aghonebarin, D. & Kehinde, D.I. (2023). Fostering critical thinking among secondary school students for sustainable development in Nigeria. *Global Journal of Sociology: Current Issues*, 13(2), 102-112. <https://doi.org/10.18844/gjs.v13i2.8149>
- Riswanto, Heydarnejad, T., Saberi Dehkordi, E., & Parmadi, B. (2022). Learning-oriented assessment in the classroom: the contribution of self-assessment and critical thinking to EFL learners' academic engagement and self-esteem. *Language Testing in Asia*, 12(1), 60. <https://link.springer.com/article/10.1186/s40468-022-00210-4>
- Salcines-Talledo, I., González-Fernández, N., & Briones, E. (2020). The Smartphone as a pedagogic tool. Student profiles as related to its use and knowledge. *Journal of New Approaches in Educational Research (NAER Journal)*, 9(1), 91-109. <https://www.learntechlib.org/p/216730/>
- Schaeffler, V. (2018). *Online course and blended learning*. Retrieved March 26, 2022, from <https://blog.inasp.info/author/veronika-schaeffler/>
- Simonovic, B., Vione, K. C., Fido, D., Stuppel, E. J., Martin, J., & Clarke, R. (2022). The Impact of Attitudes, Beliefs, and Cognitive Reflection on the Development of Critical Thinking Skills in Online Students. *Online Learning*, 26(2), 254-274. <https://eric.ed.gov/?id=EJ1348016>
- Vasanthakumari, S. (2019). Soft skills and its application in the workplace. *World Journal of Advanced Research and Reviews*, 03(02), 066-072. [https://www.academia.edu/download/83192712/WJARR\\_2019\\_0057\\_2\\_.pdf](https://www.academia.edu/download/83192712/WJARR_2019_0057_2_.pdf)
- Vázquez-Parra, J. C., Cruz-Sandoval, M., & Suárez-Brito, P. (2023). Perception of the Level of Competency of Candidates for Graduation: A Multidisciplinary Approach to Complex Thinking. *Journal of Intelligence*, 11(10), 202. <https://www.mdpi.com/2079-3200/11/10/202>
- Walker, S. E. (2003). Active learning strategies to promote critical thinking. *Journal of Athletic Training*, 38(3), 263-7
- Walter, R. (1983). *How Europe underdeveloped Africa*. London and Tanzanian Publishing House: Bogle-L'Ouverture Publications.
- Whitehead, A. N. (1966). *The aims of education and other essays*. London: Ernest Benn
- Willingham, D. T. (2007). *Critical thinking: why is it so hard to teach?* Retrieved November 2, 2022, from [www.criticalthinking.org](http://www.criticalthinking.org)
- Yosef, J. (2008). A new conceptual framework for sustainable development. Retrieved March 26, 2022, from <https://link.springer.com/article/10.1007/s10668-006-9058-z>