



## Science Education: (A Vital Tool for Promoting National Security for Sustainable Development)

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### ABSTRACT

Science education enables learner to acquire certain skills and own the proper kind of values and attitudes vital for nonviolent coexistence and resolution of some security problems in the society. This paper discuss how science education can serve as a tool for promoting National security, it also highlight some of the factors that causes insecurity and how science education can help resolve some of the challenges of national security in Nigeria. The paper concludes that for sustainable and long lasting security, it is imperative to employ scientific approach such as developing new security paradigm and protocols in fighting violent conflicts and tackle insecurity in the country. The paper also point out the need to provide moral leadership that shun evil, corruption, vices, inequity, injustice and wickedness as this will compel the people to model the character of their leaders and vice versa. Democratic system in place must also begin to deliver the needed social goods so as to improve the standard of living of Nigerians and deliver many citizens from the state of abject poverty to which they have been subjected for a long while

## **INTRODUCTION**

One of the cardinal obligation of any government is to secure lives and properties of its citizens. A properly secured environment inspires greater minds to create, and achieve greater things that ensures boom and nationwide developments (Ekeh., Okemiri., Uche-Nwachi., Ekeh 2021). Insecurity is the state of been not certain, not positive or doubtful of a situation (Ezeh and Akubueh 2007). It also can be when one is insufficiently guarded or protected or unsafe.

In Nigeria, the phrase National security gain ascendancy, and grow to be a household parlance at the return of civil democracy in 1999, following the military withdrawal from governance at the country (Seji, 2020). Osakwe (2013) noted that the nation's economic growth and political stability is directly linked to adequate security it has.

Therefore security challenges in Nigeria which includes wanton destruction of lives and properties in different parts of the country by the menace of Boko Haram, Iswap, Bandits in the northern parts of the country and Eastern Security Network (ESN) in the southern part of the country amongst others, grossly affected food production in the North, while oil exploitation was adversely affected in the south as well (Omoroje 2012).

Nigeria as a nation is severely facing security challenges, these challenges threatens the corporate existence and stability of the country. Despite large sums of money budgeted yearly on security votes by the three tiers of government, the situation still remain unabated (Okenydo 2016). These security challenges facing Nigeria requires all and sundry to be more proactive on issues of National security so as to mitigate the dangerous situation ravaging the country (Seji, et al., 2020).

Education is very important to the development of any society. Ibn Khaldun (2005) in his book *Muqaddimah* noted that education is imperative for human development, according to Ibn Khaldun, science, and education were natural things that existed in humanity.

## **LITERATURE REVIEW**

### **Definition of Concept**

#### **Science Education**

Education is simply to humanize human beings (Ajayi, 2011). Education empowers, emboldens, refines, civilize, enlighten, enriches, and give confidence to man. Most people see education merely as a formal activity and tend to ignore the basic concept of the education itself. Education is not only about teaching or increasing cognition. It's more about preparing a media for the learner's cognitions, it's an attitude. Having good attitude will provide a good medium for the cognition, learning behavior, learning autonomous, and critical thinking (Babalola 2013).

Science education is an indispensable instrument for human development. It has been recognized as the instrument per excellence for national building (Babalola 2013). Science education is amalgamation of science and education. Similarly, it's the education received through the process of science. Moreover, science education according to Aina (2013), can be seen as learning

science by acquiring and development conceptual and theoretical knowledge through scientific inquiry and problem solving.

In a similarly view Okoye (2007), sees science education as the identification, development and uses of talents, process skills for social progress. Radda (2013) noted, some of the attitude of science to include curiosity, creativity, skepticism or critical mindedness, persistence, knowledge, ability and suspended judgment, aversion to superstition, humility and punctuality.

Inculcating scientific attitudes right from the basic education level serves as an interplay that can shape the attitude and the behavior of the populace to save our democracy from falling into comatose owing to conflict or unrest, kidnapping and insecurity in the country (Omoroje 2012). In Nigeria today, emphasis laid in place in teaching science education in the 21st century is to catapult Nigeria to join the league of the foremost twenty industrialized nations of the world in year 2020.

Science education also inculcates scientific literacy that enables individuals of nations to utilize resources they have to improve their living standards (David, 2019, Gabriel 2020). It also sharpens one's quest for further knowledge and enables them to meet their basic needs and promote industrializations, and frees them from fear and superstition while promoting law and order in the society which culminates to promote National security and development (Aminu et al., 2015, Ademu et al., 2016, David, 2019)

### **Security and National Security**

Security is a collective responsibility of all citizens of a country in ensuring a secure and peaceful environment for the economic growth and development of the nation (Yusuf and Babatunde 2009). Security is a social contract between the state and its citizens, in which the former is expected to protect, defend and provide for the latter in the public area (Arisi, 2011). Security also, is the state of being free from danger of fear, attack or molestation on the backdrop that every apparatus needed for this purpose has been provided.

National Security has been construed in different ways, each of which emphasize important factors underlying ideals. Brendan (1974) holds that national security is the protection of national survival. National security is to be understood in terms of the desire and capacity for self-defense. According to Ochoche 1998, national security focuses on the assessment of military armament, Personnel and expenditure.

The concept of national security has changed over time. It was expanded to include international economics, long term goals of national development and reconciliation (Meziobi 2012). Asad (2007) noted that National security cannot be narrowed down to exclusively military term. Socioeconomic and cultural aspects, problems of development and modernizations, as well as national integrations should be deemed important in considering

## **METHODOLOGY**

This study adopted an exploratory research method. Exploratory research method was deployed to collect, review, and analyse documented data and information in books, academic journals, extant literatures, search engines, digital platforms, digital libraries, newspapers, magazines, online databases, reports, official gazettes, etc. rather than collecting primary data using questionnaire as is the usual practice in survey researches

### **Objectives of the Research**

The aim of the research was to highlight the roles of science education as a powerful tool for tackling insecurity in Nigeria, and how it consequently promotes national development for sustainable development.

The paper was specifically aimed to achieve the following objectives:

1. Examine security challenges in Nigeria
2. Examine the Effect of security challenges towards Nigeria's National
3. development
4. Examine the nexus between science education and National Security
5. Analyses the role of science education in promoting national security

## **RESULTS**

Discourse Paradigm One: What are security challenges facing Nigeria today?

### **Pervasive Material Inequalities and Unfairness**

Greater awareness of disparities in life is a major root cause of insecurity in Nigeria. This is a rooted general perception of inequality and unfairness which has resulted in a grievance by a large number of people. This perception stems from the perception of marginalization by a section of the people, government development policies, and political offices and this has become a primary source of disaffection and resentment (Aluta 2021). A large number of the Nigerian population is frustrated and have lost hope, especially the youths, and have now emerged to express their disillusion about the pervasive state of inequality. The activities of the avengers were responsible for the epileptic power supply in the country as well as the inability of state governors to pay workers' salaries due to the low revenue generated in the oil sector as a result of the attack on pipelines (Aluta 2021).

### **Ethno-Religious Conflicts**

These have arisen from distrust among various ethnic groups and among the major religions in the country. Aluta (2021) identified ethnoreligious conflict as a major source of insecurity in Nigeria. The ethnoreligious conflict was defined as a situation in which the relationship between members of one ethnic or religious group and another of such group in a multi-ethnic and multi-religious society is characterized by lack of cordiality, mutual suspicion, and fear, and a tendency towards violent confrontation. Frequent and persistent ethnic conflicts and religious clashes between the two dominant religions (Islam and Christianity), present the country with a major security challenge. In all parts of Nigeria, there exist ethnoreligious conflicts and these according to him, have emerged as a result of new and particularistic forms of political consciousness

and identity often structured around ethnoreligious identities (Aminu et al., 2015; Beland 2005).

### **Conflict of Perceptions Between the Public and Government**

Over the years, there has been a standing mismatch between public and government perceptions. A situation that often results in the reactions of the public to the excesses of the military regimes which governed Nigeria and has continued after the end of military regimes and created a sensitivity by those in government at public intrusion in matters of state (Aminu et al., 2015; Beland 2005).

### **Weak Security System**

This result from inadequate equipment for the security arm of government, both in weaponry and training. This is in addition to the poor attitudinal and behavioral disposition of security personnel. In many cases, security personnel assigned to deal with given security situations lack the expertise and equipment to handle the situations in a way to prevents them from occurring (Aluta, 2021).

And even when these exist, some personnel get influenced by ethnic, religious, or communal sentiment and are easily swallowed by their personal interest to serve their people, rather than the nation. Thus, instead of being national watchdogs and defending national interest and values, and protecting people from harm by criminals, they soon become saboteurs of government effort by supporting and fueling insecurity through either leaking vital security information or aiding and abetting criminals to acquire weapons or to escape the long arm of the law.

### **Loss of Socio-cultural and Communal Value System**

The traditional value system of the Nigerian society like most African societies is characterized by such endearing features as collectivism, loyalty to authority and community, truthfulness, honesty, hard work, tolerance, love for others, Mutual harmony and co-existence, and identification of an individual with another (Other distinctive features of Nigerian traditional society are abhorrence for theft and high value for life. Stealing was considered extremely disgraceful and lives were also highly valued). All of these values which made society secured and safe have all gradually been thrown away and lost. New values have taken over their place over the years, with the so-called 'modernity and civilization'. All our endearing values and morals have been traded off for western values (Aminu et al., 2015; Beland 2005).

The immediate factors which caused Nigeria's insecurity situation are inexhaustible.

### **Porous Borders**

One major immediate factor which has enhanced insecurity in Nigeria is the porous frontiers of the country, where individual movements are largely untracked. The porosity of Nigeria's borders has serious security implications for the country. Given the porous borders as well as the weak and security system, weapons come easily into Nigeria from other countries. Small Arms and Light Weapons proliferation and the availability of these weapons have enabled militant groups and criminal groups to have easy access to arms (Aluta 2021).

Nigeria is estimated to host over 70 percent of about 8 million illegal weapons in West Africa. Also, the porosity of the Nigerian borders has made it possible for an unwarranted influx of migrants from neighboring countries such as the Republic of Niger, Chad, and the Republic of Benin. These migrants which are mostly young men are some of the perpetrators of crime in the country.

#### **Rural/Urban Drift**

The migration of jobless youths from rural areas to urban centers is also one of the causes of insecurity in Nigeria. Nigeria is one of the countries in the world with very high rural/urban drift. Most urban areas in Nigeria have grown beyond their environmental carrying capacities and existing infrastructure and this has resulted in increased poor quality of the living conditions in urban areas in Nigeria. Out of frustration, these youths are drawn into crime (Aluta, 2021).

#### **Unemployment/Poverty**

As a result of the high level of unemployment and poverty among Nigerians, especially the youths, they are adversely attracted to violent crime. Failure of successive administrations in Nigeria to address challenges of poverty, unemployment, and inequitable distribution of wealth among ethnic nationalities is one of the major causes of insecurity in the country (Aminu et al., 2015; Beland 2005).

#### **Terrorism**

At the most proximate and least disputable level, terrorism is the most fundamental source of insecurity in Nigeria today, and its primary bases and sources of support have generally been located in religious fanaticism and intolerance. As “the premeditated use or threat of use of violence by an individual or group to cause fear, destruction or death, especially against unarmed targets, property or infrastructure in a state, intended to compel those in authority to respond to the demands and expectations of the individual or group behind such violent acts” which has cost 13.4 percent of the world gross domestic product (Aluta, 2021). Nigeria has lost large numbers of lives in the Northern region since 2009 to the insurgency of this infamous sect, Boko Haram which has been ravaging the northern region of the country.

Discourse Paradigm Two: What are the effects of security challenges towards Nigeria’s National development?

The insecure environment of business refers to insecurity variables that affect the performance of a business but over which the business enterprise has little or no direct control. In Nigeria, the variables range from theft to organized armed robbery, kidnapping and demand for ransom, assassination, repeated invasion and blockading of business installations, social injustice, unemployment, lack of access to livelihood resources, the rising cost of living, and bombing, pipelines destruction. All these variables of crimes and social maladies have made the Nigerian security environment to be complex (Aminu et al., 2015; Beland 2005).

In addition to the usual crimes, the coordinated attacks from the Boko Haram sect in the northern part of the country, besides making life miserable for Nigerians, have affected so many businesses operating in that region. The bomb explosions initiated by this group have been on the increase leading to enormous

loss of life and property and a general atmosphere of fear and social tension in the country (Aminu et al., 2015; Beland 2005).

The implications of the Nigeria insecurity situation for organization's business activities cannot be overemphasized. We contend that when there is widespread insecurity, it could affect business investment, the entire business organization, or some aspects of its operations which include production, marketing, finance, and human resource (H/R).

World Bank on the investment climate in nine African countries in which it was found that 29% of business operators in Africa and 36% in Nigeria perceived insecurity as a major constraint on investment (Aluta 2021). This situation has the damaging consequence of giving a signal to the international community that Nigeria is not a safe and secure place and as such not suitable for investment and business activities (Aminu et al, 2015).

In that case, foreign firms and entrepreneurs would decline to invest and this is particularly important in view of the efforts being made to create the desired atmosphere to attract foreign direct investment. So, it is a strong disincentive to business investment as it scares away potential investors.

This is because such environments or economies are considered high-risk zones due to the high level of uncertainty about the safety of investment and the lives of the managers and their staff. Evidently, there has been a decline in foreign direct investment in Nigeria. Foreign Direct Investment (FDI) is usually investment targeted at building new factories or investing in actual production activities which create jobs. Foreign investors in the Nigerian economy are moving away from starting new companies or production plants and are buying up shares of quoted companies instead (Aminu et al, 2015). The state of insecurity in the country besides the issue of lack of regular electricity supply, which itself is a source of economic insecurity in the country is repelling investors.

The Nigeria insecurity situation can, and in many cases, actually halted business operations during the periods of violence and also caused the outright closure of many enterprises especially in the areas or zones where incidences of insecurity are rife and are on a daily occurrence, in a bid to protect lives of operators and business property (Aluta, 2021). Generally, if there is no peace and security, it is extremely difficult for businesses to survive. Ordinary citizens having small and medium scale businesses cannot open shops for business transactions. Insecurity everywhere is a risk factor that business owners and managers dread and wish to avoid by relocating their businesses elsewhere. In the case of Nigeria, there is also evidence of some businessmen and manufacturing companies having to relocate particularly from the North in recent time, to other peaceful parts of the country. Non-indigenes especially Igbos and Yorubas have to return to their home states before they are killed by Boko Haram. In addition, some firms have shifted their operations to other countries like Ghana which is deemed to be more peaceful (Aminu et al., 2015; Beland 2005). Apart from the outright closure of a business enterprise, an existing business can also be affected in the four functional areas of business shown below such as production, marketing, finance, and human resource (H/R).

### **Production**

Business enterprises rely on the availability and regular supply of raw materials for production. Security problems can cut off the supply of such raw materials. When a firm is unable to access raw materials needed for production due to insecurity in the source, it can disrupt production activities.

### **Marketing**

It is not only that a business enterprise must get raw materials for production, but it also must dispose of off their output. Insecurity limits market availability. In addition to the fact that areas pruned to insecurity will not be attractive for marketers from outside, there will be restrictions on mobility (Aluta, 2021). Besides, the Migration of people from the areas to other parts of the country or outside as a result of insecurity will affect the customer base of businesses operating in the environment where the insecurity exists. Nigeria is currently experiencing this situation in many parts of the country especially in the terrorist fields of the northern part of Nigeria (Aluta 2021).

### **Finance**

Insecurity also increases security spending by business organizations. This emanates from the cost of taking precautions and payment for private security services. From general observation, most business organizations operating in Nigeria maintain security personnel as well as security infrastructure in order to ensure the security of their properties and the lives of their staff and customers. It could also result in the loss of capital through the burning of business buildings and properties. Beyond these, it also limits sources of funds to the business (Aluta 2021).

### **Human Resource**

When there is a high level of insecurity in a particular area or region, there will be migration of people which could lead to a dearth of skilled labor. Insecurity affects the general human security of the people as the situation promotes fear, while at the same time limiting the peoples' ability to work effectively. There are also circumstances when employees of a business enterprise become victims of the attack and the firm losses its experienced staff through death or injury (Aminu et al., 2015; Beland 2005). As such, workers resign to run away from such areas and fresh people do not want to go there for employment. The implication is manpower shortage for the business which ultimately affects the success and survival of the business. This exerts pressure on the business for manpower at any cost. Due to the impact of insecurity on businesses, we support the proposition that the government must ensure the availability of public security at all times. This is crucial because if businesses fold up and investors are no longer forthcoming, then the future is bleak.

Security and development are also related in the sense that being a public good, the imperative to maintain security competes with other public goods such as education, health, and infrastructure for public funds. Insecurity, therefore, becomes a drain on local and national resources at the expense of development and peoples' well-being thereby, having adverse consequences on economic growth and development (Aminu et al., 2015; Beland 2005).

Thus, in the absence of any real threats to security, expenditures on security can be reduced significantly, allowing national and local governments to channel more resources to other public goods to improve the quality of life of the people. In addition, insecurity destroys existing infrastructure and also prevents an environment for the development of further infrastructure; and a safe environment for economic activities by individuals to give them economic empowerment that will enable households not only to cater for their present generations but also to provide for future generations (Aluta 2021).

Discourse Paradigm Three; What is the Nexus between Science Education and National Security?

Science Education broadens one's knowledge and understanding of the happenings in life; this implies that without science education, there may be no adequate security. Generally speaking, insecurity is the opposite of security. Hassan (2014), explains security as the defence, protection and prevention of core values and absence of threats to the set and acquired values and security can be achieved to a greater extent through the knowledge of science education. Insecurity according to Alegre (2009), is a feeling of general unease or nervousness that may be triggered by perceiving of oneself to be vulnerable or inferior in some way or a sense of vulnerability or instability which threatens oneself, image or ego (Okoli and Anazodo 2022).

As Science Education is concerned with finding answers and solutions to problems and understanding of the happenings around us and the world at large, (Eze and Akubue, 2007) pointed out reasons for acquisition of science skills through science education for the production of much needed manpower for the national development of individual potentials, essence of discovery, development of rational thought, explaining of natural phenomena and general scientific literacy. Moreover, science education being education through the study of science has been recognised in the world over as a prerequisite for scientific development, it provides opportunities for students to acquire relevant functional knowledge and skills needed for advancement in science; and are encouraged to live by providing information on the topical issues in the country and proffering solutions which are aimed at combating insecurities.

Science education also provides economic benefits by increasing the productive capacity of its people (Onyishi, 2007). It can therefore be concluded that science education can effectively combat insecurity in the country which is based on the fact that science education is the vehicle for scientific development of the country which will culminate to improved security of lives and properties. Science education also creates self-employment opportunities through the various skills provided at various degrees as when one is busy doing one kind of job or the other, the rate of crimes and criminality will drastically reduce and subsequently eradicated thereby getting rid of most insecurity.

**Discourse Paradigm Four: The Roles of Science Education in Promoting Peace for the Attainment of National Security**

In order to achieve a long-lasting national security and development, a country must possess and maintain the necessary knowledge and

infrastructure base for sustainable energy, telecommunication, agriculture, food security, Portable water among others(Okoli and Anazodo 2022).

Threats to human life comes not only from situation of violent conflicts but other non-conflict sources of threat such as poverty occasioned by lack of access to means of livelihood (Aminu, et al 2015).

Human security is concerned with the protection of individuals from critical and life threatening dangers such as poverty. This prompted Beland (2005) to view human security as a condition of existence which entails basic material needs. When individuals at their productive age stay without jobs and means of livelihood, there is every tendency that they resort to available means including violent means to make the two ends meet.

Science education plays a crucial role in mitigating national security risks and driving sustainable development. Here are several ways in which science education can contribute to these areas:

- i. **Enhancing Critical Thinking:** Science education fosters critical thinking skills, enabling individuals to analyze and evaluate information objectively. This ability helps people make informed decisions, differentiate between reliable and misleading sources, and identify potential security threats or development challenges.
  - ii. **Advancing Technological Innovation:** A strong scientific education system produces a skilled workforce capable of driving technological advancements. By equipping individuals with scientific knowledge and skills, nations can foster innovation, develop cutting-edge technologies, and address national security concerns through advancements in areas like defense, cybersecurity, and intelligence.
  - iii. **Addressing Environmental Challenges:** Science education promotes understanding of environmental issues and their potential security implications, such as climate change, pollution, and resource scarcity. Educated individuals can contribute to sustainable development by applying scientific knowledge to develop clean technologies, mitigate environmental risks, and promote responsible resource management.
  - iv. **Health and biosecurity:** Science education plays a critical role in public health and biosecurity. By educating individuals about infectious diseases, vaccination, hygiene practices, and bioethics, science education strengthens a nation's ability to respond to pandemics, bioterrorism threats, and public health emergencies. It also facilitates the development of a skilled healthcare workforce and enhances the capacity for research and development of new medical treatments.
1. Science education is vital for building a knowledgeable public health workforce and enhancing the population's health literacy. Educated individuals can contribute to national security by understanding and responding effectively to health crises, bioterrorism threats, and disease outbreaks, as well as driving scientific research and medical advancements.
  - v. **Promoting Cybersecurity:** Science education plays a significant role in cultivating cybersecurity expertise. By providing individuals with knowledge of computer science, cryptography, network security, and

- ethical hacking, science education can help address cyber threats, protect critical infrastructure, and safeguard national security.
- vi. **Fostering International Collaboration:** Science education also facilitates international collaboration on security and development issues. By promoting scientific cooperation, nations can exchange knowledge, share best practices, and collectively address common challenges. This collaboration can enhance security cooperation, build diplomatic relations, and promote global development efforts.
  - vii. **Economic development:** Science education is closely linked to economic development. A strong scientific workforce is essential for driving innovation and competitiveness in industries such as healthcare, energy, agriculture, and manufacturing. By equipping individuals with scientific knowledge, research skills, and entrepreneurial capabilities, science education fosters economic growth, job creation, and increased productivity
  - viii. **Empowering Sustainable Development:** Science education equips individuals with the tools to understand and address complex societal issues, such as poverty, inequality, and food security. Educated individuals can contribute to sustainable development goals by applying scientific knowledge to develop innovative solutions, promote renewable energy sources, and improve agricultural practices.
  - ix. **Science education serves as a crucial tool for mitigating national security risks and driving development.** By fostering critical thinking, technological innovation, environmental stewardship, public health expertise, cybersecurity, international collaboration, and sustainable development, science education empowers individuals to contribute effectively to their nation's security and development goals.

## CONCLUSIONS

The insecurity challenge in Nigeria has become a formidable challenge, so government at all levels should employ scientific approach such as developing new security paradigm and protocols in fighting violent conflicts and tackle insecurity in the country. The governance challenges facing the polity have trickled into the society, resulting in the erosion of social psyche and or moral decadence. The growing dissatisfaction, discomfort and distress within the larger society coupled with the unbaiting official corruption, high unemployment rate, economic crisis/ Pauperization of the masses, decaying infrastructure and a futile national integration project have heated up the socio-political environment. Consequently, armed conflicts, terrorism, ethno religious holocausts, kidnapping, banditry, human trafficking, political assassination and other violent crimes have become the leitmotif otherwise, recurring decimal of Nigerian social relations.

Science education serves as a crucial tool for mitigating national security risks and driving development. By fostering critical thinking, technological innovation, environmental stewardship, public health expertise, cybersecurity, international collaboration, and sustainable development, science education

empowers individuals to contribute effectively to their nation's security and development goals.

## **RECOMMENDATIONS**

- Firstly, Providing moral leadership that eschews evil, corruption, vices, inequity, injustice and wickedness will compel the people to model the character of their leaders and vice versa.
- Secondly, democratic system in place must begin to deliver the needed social goods so as to improve the standard of living of Nigerians and deliver many citizens from the state of absolute poverty to which they have been subjected for a long while.
- Thirdly, there is need to identify the moral values and ethical virtues that should guide the conduct and behavior of Nigerians. These values should be built on the respect for human life, the regard for human dignity and the right to life, liberty and security of the people; the freedom of worship, religion, thought and conscience; and the freedom of opinion.
- Fourthly, there should be a codification of the moral values and virtues the government and Nigerian peoples subscribe to for the good of the larger society.
- Fifthly, government should plug all the holes through which scarce resources are being siphoned so as to free resources for national development and equipping of the military to fulfill its functions.

Lastly, there is need for a national conversation or dialogue where Nigerians can release their pent-up anger and frustration against the state and fashion out the blueprint for the engagement of all the component units that make up Nigeria. Paying lip-service to the matters of insecurity in Nigeria by government and its representatives is sitting on a time-bomb that may soon explode. Sustaining personal or regime security will not secure government or its representatives if this challenge is not nipped in the bud. The governance process must be erected on the pillars of scientifically moral values and virtues and the Nigerian people must be led by scientifically literate leadership that will strive to secure the commitment and support of all citizens to make the Nigerian project to succeed.

## **FURTHER STUDY**

This research still has related limitations so further research needs to be carried out on the topic Science Education: (A vital tool for promoting National security for Sustainable Development) in order to perfect this research and increase insight for readers.

## REFERENCES

- Ajayi, s. A (2011). The contemporary challenges of education in nigeria. A lead paper presented at the 7th annual national conference of the association for encouraging qualitative education in nigeria (asseqen) at the federal government college of education (fce) abeokuta, may10.
- Akpotu n. E. And egwunyenga, j. E. (eds.) Education for sustainable development: the teacher challenges in providing quality education in nigeria by 2030
- Alegre, a. (2009). Emotional security and its relationship with emotional intelligence, virginia polytechnic institute and state university. Retrieved 2023.
- Aminu, u., hanza, a. & ali, d. (2015). The impact of insecurity and poverty on sustainable economic development in nigeria. International journal of humanities, social sciences and education (ijhsse), 2(2), 32-48.asad, d (2007) national affair. [Http://www.nigeriavillagesquare.com](http://www.nigeriavillagesquare.com). Retrieved 29thnovember 2022
- Aminu, u., hanza, a. & ali, d. (2015). The impact of insecurity and poverty on sustainable economic development in nigeria. International journal of humanities, social sciences and education (ijhsse), 2(2), 32-48.
- Arisi, r. O. (2011). Social studies education as a panacea for national security in nigeria. African research review, 5(2), 254-262
- Babalola, j. B. (2013). Education for sustainable development in africa. Being a keynote address delivered at ucc-unilorin joint international conference, ghana. Ibadan: his lineage publishing house
- Beland, d. (2005). The political construction of collective insecurity: from moral panic to blame avoidance and organized responsibility. Centre for european studies working paper
- Brendan t (1974). The evolution of national security studies. National security college occasional paper. No 3.
- Chris aluta (2021). Security challenges in nigeria and the implications for business activities and sustainable development. The nigeria-south africa chamber of commerce webinar for january 2021.
- David a. U (2019) utilization of science education for promoting national security in nigeria: a study of ebonyi state.international journal of integrated research in education (ijire)
- Ekeh g.e., okemiri h.a., uche-nwachi e.o. and ekeh l.k (2021) science-systems as a catalyst to sustainable national security in nigeria. Science world journal vol. 16(no 4)
- Eze, c.u. & akubue, p.a. (2007). Laboratory management skills employed by chemistry teachers in enugu state nigeria. Nigerian journal of functional education. 5 (1), 38-45.
- Gabriel o. A (2019) scientific infrastructure: a necessary tool for national security and development in nigeria. World journal of innovation and modern technology vol. 3 no. 1, 2019 issn 2504-4766
- Hassan, m. B. (2014). Boko haram insurgency and the state of insecurity in nigeria, manifestation of governance crisis, journal of research on

- humanities and social sciences 18(4).
- Ibn khaldun (2005) *the muqaddimah, an introduction to history*. Albrided edition. Princeton university press, 41 william street new jersey. U.s.a
- Mezieobi, k.a. (2012). *New frontier areas in social studies in nigeria*, acadapeak publishers. Owerri:
- Ochoche, s (1998). *The military and national security in africa*. In hutchful (ed.) *Military and militarism in africa*. Codesirea publishers, senegal:
- Ogunniyi, m. B. (1986) *teaching science in africa*. Ibadan, salem media (nig.) Ltd.
- Okenyodo, o. (2016). *Governance, accountability and security in nigeria*. Africa security brief, 31, 1-8. [Www.africacenter.org](http://Www.africacenter.org).
- Okoli o. S. And anazodo o. S. (2022) *science education as a tool for combating insecurity in the country international journal of development strategies in humanities, management and social sciences* p-issn: 2360-9036 | e-issn: 2360-9044 volume 12, number 1 january, 2022
- Okoye, n. S. (2018). *Science education teacher and sustainable development in nigeria*.
- Omoroge, o.d. (2012). *The political economy of militancy in the niger-delta region of nigeria (1999-2011)*; unpublished ph.d thesis proposal.
- Omoroge, o.d. (2012). *The political economy of militancy in the niger-delta region of nigeria (1999-2011)*; unpublished ph.d thesis proposal.
- Onyishi, s. O. (2007). *Applying functional scientific knowledge to improve students interest and achievement in science education in nigeria*, nigerian journal of functional education. 5(1),67-73
- Osakwe, n.r. (2013). *Achieving national security and development through quality education in nigeria*, research journal in education, 19(1), 80-83.
- Osakwe, n.r. (2013). *Achieving national security and development through quality education in nigeria*, research journal in education, 19(1), 80-83.
- Radda, s. I. (2013). *The role of education in promoting national security*. Paper presented at the fulbright alumni association of nigeria (faan) conference held at ahmadu bello university zaria, nigeria, 19th - 22 nd november.
- Seji d.o. omoroje, philip onyekachukwu egbule and john ejime emuebie (2020) *achieving national security in nigeria through education* ujah volume 21 no. 4, 2020.