



Lifelong Skills in Technology Education for Self-Reliance in Nigeria

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Abstract

The paper discussed lifelong skills in technology education for self-reliance in Nigeria. Lifelong skills in technology education for self reliance is an essential ingredient for the attainment of both individual and national development. Hence, the thrust of the paper is how lifelong skills in technology education can be acquired for self-reliance through training in the institutions and relevance complementary agencies. Finally, the paper also x-ray the goal of technology education and the major for the realization of self reliance in order to reduce the burden of unemployment in Nigeria.

Key words: lifelong skills, technology, education, self-reliance.

Introduction

Technology education have become an integral part of the world culture. The combined influence of technology education result in structural changes and unequalled modernization process which give rise to great increase in productive capacity and specialization in the society, the contribution of technology education to overall development of all nations cannot be over emphasized. Technology education is the sole key that could accelerate the pace of development of the nation and the entire citizenry. This is because it is meant to give training and impact the necessary skills for the production of technicians, technologist and other skilled personnel that enterprising and self reliant. In line with this Adah(2016) stressed that any nation that failed to recognize the significant role of vocational, technology and science education was at the risk of remaining backward in technologically fast-moving world.

The secret behind the success of the advanced countries today is their investment in lifelong skills in technology education (Maji, 2015). Nwosu (2016] also recognizes the importance of lifelong skills in technology education as being essential for development and therefore should be



emphasized in schools. Hence this Paper focused the need for the use of technology education to develop lifelong skills that are technologically oriented skills in order to raise or produce individuals that are self reliant. Technology skills refers to ability to interact and complete tasks using computer-based technologies and other associated technologies, these tasks can either be digital or physical, sometimes these skills may be referred to as technical skills. they usually fall under the category of hand skills that are usually learned in classroom setting (formal) or through alterative training (informal). Technical skills tend to be measurable for proficiency and will be determined by how well you can accomplish your tasks using the acquired skills (Chris, 2021). Such lifelong skills in technology education includes the following: video editing, video coverage, video production, , filming audio recording / audio editing, computer soft ware, computer programming, printing, and designing, mobile phone/smartphone and CD ROM , DVD production and editing, unfortunately, the products of this type of education are yet to achieve the desired practical disposition that could translate into self reliance or self satisfaction. This could be attributed to some problems such as inadequatefunding,inadequate instructional facilities and lack of enough teachers among others which need to be addressed.

Self reliance is a quality of depending on yourself for a thing instead of relying on others.It is the ability to do things and make decisions by yourself, without depending on other people to help you . people learned self reliance because they had to (Hornby, 2016). Self reliance is situation where people are independent and autonomous in other words, they take care of themselves .self reliance means vigilance, kindness, autonomy & connecter. self reliance means vigilance,autonomy and connectionself reliance is dependency on internal resourese to provide life with coherence and fulfillment [Baumeister 2015], Balmeister argues strongly that self reliance, self trust and individualism, amongst other things, are ways that we can avoid the conformity imposed upon us. Or, he also argues, that we quite frequently impose upon our selves. from the forgoing there is need to offer student and graduateslifelong skills in technology education for self reliance that could reduce the burden of unemployment status in Nigeria.

Concept of Long-life Skills

Skills according to [oxford Advance learners dictionary (2018)is the ability to do well, especially job that requiresskilled individuals and an eye detail. Lifelong skill is what made one remarkable as a photographer capturing the moment. A particular ability, or type of ability that need people with practical skills like video editing and production, software developer, web site creation and development(Ashby, 2016) . A lifelong skill is a lifelong craft that one practice for a living. young graduate should be exposed to technology education or trained in technology skills



that can make them skilled individuals having enough ability, experience and knowledge to be able to do well, and live independent, self- sufficient and self-reliant life.(Colins 2018)

Types of Technological Skills

There is a wide variety of technology skills in use today. The types of technology skills employers need continue to increase with time. But there are basic technical skills that are expected to be acquired to make one employable. Some of them are discussed in this paper which are;

1. Computer illiteracy skill: At least one should have some basic computer technology skills to get by in a digital world even if you graduated with an art degree. You should know how to switch on and off the computer, how to troubleshoot simple issue such as internet connection Problems and how to install work software. Some of the tax one should be able to complete using computer including working with;
 1. Word processing system: like Microsoft office. Be able to work in Microsoft word and other common word processing software application to create content, spreadsheet to perform basic calculations etc.
 2. Email: should be able to create email, send individuals and multiple emails and organize emails among other things.
 3. Presentation software: should be able to create presentations and organize slideshows using ms power point, google drive slides etc
 4. Social media: creates social media posts and images- engage with audience etc.
 5. Search engines- Be able to perform basic tasks such as researching, findings specific websites, downloading digital files like images and videos etc.(Yinka,2018)
 6. Basic computer hardware : You should be able to reboot computer, adjust the battery position, connect and disconnect the electricity, copy files to a CD, flash disk or internal hard drive etc. one could attend classes to learn the basics . but one can also learn these skills from computer savvy people around .
2. Database management skills –the management and storage of data is an important aspect of technology people need to be able to refer to stored data and information if the need arises. If one have these kind skills such a person can become a database developer or administrator. Some database skills are dependent on the platforms that are used in the creation of the databases . Others are dependent on the platform that are in use such platforms include MYSQL, Microsoft SQI , saver and Oracle. if one have skills and experience related to any of the database platforms, such a person should show that one have show it on resumption and cover letter especially if the job description specifically mentions it.(Udo, 2014)



3 website development skills: Any skills that are necessary for the development of websites for the internet or internet should be included in your web development job skills, which includes:

- a. Knowledge of computer programming languages like HTML, CSS, Java script etc
- b. Analytical skills
- c. Search engine optimization (SEO)
- d. De- bugging skills (Collins,2018)

Even if one don't have all the necessary skills required for website development , that will not stop such individual .summarize how you contributed towards the development of websites using your existing knowledge and skills

4. Digital marketing skills: Digital marketing is internet based marketing. it is a technical skills that requires you to master how to communicate with your target audience across multiple technological devices and online platforms. These includes mobile apps and computers as well as social media and websites. Some of the skills that fall under digital marketing skills includes; video production, search engine optimization (SEO), writing skills, Data analysis, communication skills ,graphic design and content management.(Ada,2016) While digital marketing may be considered a technical skill, some of the task within these category can be done by someone who does not have any technical knowledge. For example, content creation can be done by the writer. And if one can frame his or her self as a good writer and can handle content management systems, such individual can get the job desired.

5 project management skills: According to Yinka (2018) Is the application of tools or strategies to ensure that teams achieve project goals on time . project management jobs tends to require both technical and soft skills. Some of these project right task one need to do include; financial modeling, performance tracking, project scheduling the use of the agile software as an approach to find efficient solutions(Ability to collaborate regardless of where they are),team management(must be a team player and a good leader) and effective time management.

6. Cyber security skills- is sometimes known as information technology security. It involves the safeguarding of computer system and networks from all manner of threats. These threats include theft, damages , disruption and information disclosure among others.(Auta, 2016)



Cyber security skills are much needed technical skills in today's world where hackers can do so much damage. Some of the skills that employers are looking for in this regard include; computer science and forensics skills, software development skills, hacking capacities, computer programming, communication skills. The above are just some of the requirements that one needs if he/she decide to go into the information security business. If you are a software engineer or have a computer science background you are in a good position to apply for the jobs even if you did not specialize in cyber security.

Improving Technical Skills of an Entrepreneur

The more technical skills one has, the more career opportunities to take advantage of. The good news is that there are plenty of ways through which one can improve these skills. skills could be improved by;

1. Reading books, magazines or websites on technical subjects that interest you
2. Asking to be included on technical projects so that you can gain hands-on experience
3. Joining online courses and tutorials about the technology subjects you want to learn
4. Enrolling In workshop and offline classes
5. Practicing on your own refining your technical skills
Taking advantage of any technical training and certificates offered by your employers

Keeping Technical Skills Current

The best way to keep technical skills current is to keep on practicing what is already known. But according to magazines and websites that deal with the technical subjects of interest. And if there are new certifications on offer, invest to get the training needed. This will enable one have the latest information in his/her field.

The concept of Technology Education

Technology education has been variously viewed. Nwosu (2015) point out that it exists because of the quest for acquisition of technology. He looks at it as acquisition of knowledge and skills that gears towards technology know-how. Simple, technology education is teaching and learning of technology. To Abdullahi (2016) technology education is education that deals with the application of science, Mathematics, knowledge, tools and skills in an attempt by man to satisfy



his want by human action on physical objects. On his own part, Auta (2016), points out that technology education has been an essence that aims at developing practical skills as well as creative and innovation ability of student as it enhance and facilitate their problem-solving and decision-making skills. From the forgoing, technology education could also be viewed as education that enables the gains of the existing technologies get across to the end users of such technologies for the socio-economic benefits of man and citizenry in general.

1. The Concept of Self-Reliance

Self-reliance according to Yinka (2018) is the use of one's own power of action and judging without depending on others. To Akor I (2016), self-reliance can be viewed in two dimensions; individuals self-reliance and self-reliance of a nation. Individual self-reliance implies his ability to rely on the activities and skills he performs as a result of his learning for self fulfillment. A nation that is able to harness its resources to promote national prosperity, an efficient, dynamic and self-sustaining economy is said to be self-reliant (LawaL, 2018). From the foregoing, self-reliance suggests a situation only where and when there is ability and desire to look inwards for answers to develop efforts, self reliance is the capacity to manage ones own affairs, make one's own judgments and provide for oneself.

The Aims and objectives of Lifelong skills in Technology Education in Nigeria

The federal Republic of Nigeria (2014:40-41) spells out the aims and objectives of technology education as follows:

- a) Give training and impart the necessary skills for the production of technicians, technologists and other skilled personnel who shall be enterprising and self reliant
- b) Train technologist and business owner particularly commercial and advanced technology levels
- c) Provide the technological knowledge and skills necessary for industrial, commercial and economic development of Nigeria
- d) Production of technicians, technologists and other skilled personnel who are self dependent, self sufficient and self satisfactory.
- e) Provide trained manpower in the applied sciences, technology and business particularly at craft, advanced craft and technology levels
- f) Train people who can apply scientific knowledge to solve environmental problem for the conveniences of man;
- g) Give exposure on professional studies in the technologies.



It is noteworthy that the above aims and objectives lifelong skills of technology education depict that its products would acquire the appropriate consciousness/ practical skills required to make one self reliant, but not in absences of Some constraints.

Constrains/Problems of Lifelong Skills in Technology Education for Self- reliance in Nigeria

A number of constraints encountered in the implementation of lifelong skills in technology education for self-reliance in Nigeria, have been identified, despite all efforts of the state and federal governments, parents and voluntary agencies. These includes

- I. Inadequate funding of institutions and agencies responsible for the execution of the programme. This under funding problem is evident in our institution by clear absence of the necessary facilities and equipment. This is also coupled with corruption and mismanagement of resources (Akor, 2016.)
- II. Inadequate funding of institution and agencies responsible for the execution of the programme. This under funding problem is evident in our institution by clear absence of the necessary facilities and equipment. This is also coupled with corruption and mismanagement of resources (Auta, 2016).
- III. Instructional resources such as workshops where technological tools and equipment are kept for training of students are hardly available in many schools. Where workshops/ laboratories exist, they are ill equipped [Njoku,2018].
- IV. Teacher trained for the entrepreneurship programme are not enough. Hence Ajayi (2018), alerts that in spite of the addition of existing colleges of education (technical), which produce technical teachers, there seem to be no improvement in the inadequate number of technical teachers.
- V. Lack of appropriate linkage between these institution and agencies with the industries has created a scenario product of these institutions are not adequately patronized due to obsolete knowledge and skills acquired during training

The Way Forward

The following measures would help in the realization of self-reliance for the nation and the entire citizenry if resolutely implemented.

- I. Secondary school curriculum should be modified or reviewed to make the teaching and learning of technology a compulsory subject. It should be offered at the senior secondary as an offshoot to introductory technology.



- II. Technology education institution and the relevant agencies should be properly funded and sustained for the realization of complete programme implementation voluntary agencies/ Non –Governmental organizations (NGOs) as well as well meaning philanthropists should be involved.
- III. The programme training institution should be well equipped with appropriate facilities, enough qualified teachers and supporting staff.
- IV. There should be conscious efforts at ensuring proper and coordinated linkage between our industries and the training institutions. Indigenous technology a could evolve as a result of this interaction.
- V. Nigerian Government should by legislation, discourage our dependence on foreign technology / materials to give room for indigenous initiatives.

Conclusion

Technology education for self- reliance is an essential tool for the attainment of both individual and national development. The efforts made so far in stabling training institutions and the relevant complementary agencies are highly commendable. All stakeholder of the programme should be committed to it in order to achieve the desired self- reliance. Consequently, the government would be relived of the huge burden of unemployment the burden of unemployment on government will be reduced. Also ,the socio- economic disposition of the citizenry would improve.

References

- Abdullahi, A. (2016) *Science teaching in Nigeria*, Ilorin, Atato press Ltd.
- Njoku,Z. C.(2018). Resources for communicating STM in Nigeria: decade of waste. *39th Annual conference proceeding of science teacher association of Nigeria [A TAN]* 58-61
- Adah, O. C. [2016]. Vocational and technical education for self- reliance through universal basic education. *knowledge review* 7[2], 109
- Auta, I.S [2016] administration and planning for development of technology foundation. *Journal of Nigeria Association of Teachers of Technology*. 1[1]. 36-49
- Federal republic of Nigeria [2014] *policy on education*. Yaba: Nigeria educational research and development council press.
- LawaL, S. (2018). The universal basic education: a tool for self-reliance. *Knowledge review* 7



[2], 144-146

Chris, N.S. (2021) science education and self-reliance.the Nigeria experience.*knowledge review*.

7[2003]. 147-152

Nwosu, F.C.(2015). Imparting technology education among students. *Nigeria Journal of curriculum and instruction*. 13[1] 70-74.

Yinka, S. [2018]. *Longman dictionary of contemporary English*. England: Longman group Ltd.

Udo, M.P. [2014]. *Introduction to vocational and vocational education*.Jos:fon printing press.

Maji, S. (2015). Investment in technology education for self reliance. In O. E. Abel (ed).
Education ,Good Governance and Challenges of Nationhood in Nigeria.pp98-101.

Collins, E. O. (2018). *Oxford English Dictionary*. England: Longman group ltd.

Baumeister, C2015). The making of a self relianceNation.In O, E. Abel (ed) ,*Challenge of Nationhood in Nigeria*.pp58-63.

Hornby, A .S.(2016). *Advance learners dictionary*. England: Inter-versity Press.

Ashby, S.E. (2016). *Oxford English Dictionary*. England: Longman group Ltd.