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Use of Audio-visual Materials in Equipping Girls for Sustainable Development in Nigeria

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Abstract

Education is the cornerstone of national growth and development. The use of audio-visual materials aids the effective, cognitive, affective and psychomotor development of students at all levels in Nigeria through what the ears and eyes hear and see respectively in the teaching and learning process. Audio-visuals are necessary for teaching and learning in this 21st century. They are useful in training and equipping individuals that can contribute meaningfully in the society and thus help achieve sustainable development in Nigeria. There are many factors that can limit the effective use of audio-visuals in equipping girls for sustainable development. These include inadequate infrastructure, inadequate skilled manpower, cost and limited access to the internet. This position paper, therefore, recommends the provision of adequate infrastructure, recruitment of skilled manpower, provision of adequate audio-visual materials and effective utilisation of audio-visual materials from primary to tertiary institutions in order to equip the girl child to contribute significantly to sustainable development in Nigeria.

Word Count: 156

Keywords: Equipping, audio-visual materials, girl education and sustainable development

Introduction

Education is a veritable tool for national development. It empowers people and strengthens nations. According to the National Policy on Education (2013), education is an instrument par excellence for achieving the developmental goals of the nation. As observed by Adedokun (2011), education, more often than not, holds the key to other conditions such as taking proper decisions

about living and acquiring skills that can assist one economically, politically and socially. Anugwom (2009) thus opines that education is the main tool for imparting skills and attitudes relevant to the contribution of the individual to the development of the society. It is a key every individual should possess in order to make significant contributions to national development. In the opinion of Imogie (2012), the prosperity of a country depends, not only on the abundance of its revenue nor the strength of its fortifications, but on the number of its citizens that are enlightened through education.

Education is a social process in which one achieves societal competence and individual growth. It is the art of learning about oneself and one's environment for the purpose of self-development while, the use of audio-visual materials in educational institutions is now seen worldwide as both a necessity and an opportunity for institutions to excel greatly developing individuals (Grace & Kalu, 2016).

Audio-Visual Materials

The term audio-visual materials has been defined by Dike (2013) as "those materials which do not depend solely upon reading to convey meaning. They may present information through the sense of hearing as in audio resources; sight, as in visual resources; or through a combination of senses". Indeed, the variety of such resources is a striking characteristic.

The 6th edition of the Oxford Advanced Learner's Dictionary (2000), defines 'audio-visual' as "using both sound and pictures as audio-visual aids for the classroom". This implies that audio-visual materials need to serve as an aid in the classroom for teaching and learning to take place. Also, the definition shows that audio-visuals are materials whose information contents can only be perceived through the ears and eyes. That is to say, its information contents can be perceived through the sense of hearing with the aid of sounds - referring to the audio resources; or perceived through the sense of sight in the form of pictures or objects - referring to visual resources. The combination of audio and visual (audio-visual) implies that information can be perceived with the ears and eyes at the same time. Therefore, the term "audio-visual" refers to both audio materials, visual materials and audio-visual materials. They include phonographs, films, film-strips, micro-phones, speakers, slides, projectors,

posters, chalkboards, charts, models, diskettes, television, audio–video machines, computers and cell phones (Aina, 2004).

In the words of Anzaku (2011), “the term “audio–visual material” is commonly used to refer to those instructional materials that may be used to convey meaning without complete dependence upon verbal symbols or language”. Instructional materials include a textbooks with illustrative pictures or diagrams while, some audio–visual components are in the form of processes and experiences. For example, dramatising an event or a procedure. Some audio–visual materials like motion pictures require the use of electronic equipment to bring out their value. However, some audio–visual materials do not need equipment at all, for example, an exhibit or a study print. The effective use of audio–visual materials is very necessary for sustainable development in any society especially in Nigeria.

Most of these audio–visual materials are found in the classroom but their effective management by teachers in the classroom, as observed by Dike (2013), is an issue which is a common trend among institutions of learning. He further added that, most institutions have a large number of students in the class and the chalkboard, most often, is the available visual material in the class that can aid students understand the lecture. At this time, however, the teacher may not be able to effectively manage the use of the chalkboard to ensure all in the audience benefit. The management of these entails the use of colourful and bright writing materials for all to see. In a similar vein, Aina (2014) opines that management of the chalkboard in a large class entails that the teacher use an audio means – the microphone and good speakers–so that those in the class who may not see the information clearly from the chalkboard can benefit with the use of micro–phones; hence ensuring that information is effectively gathered by the students and learning is assured by all.

Sustainable Development

The concept of sustainable development lies in the idea that a society is able to maintain its level of political, economic, cultural and educational status both in the short and long run. It is the highest level of societal growth. It connotes quantitative and qualitative growth in all sectors of a country. Sustainable development has its goals. The sustainable development goals (SDGs) are a new, universal set of goals, targets and indicators that the United Nations

member states are expected to use to frame their agendas and political policies over the next 15 years. The SDGs follow, and expand on the Millennium Development Goals (MDGs). The countdown began in September 2015.

On discusses the 17 goals that could transform the world by 2030.

Here are the 17 Sustainable Development Goals.

Goal 1: End poverty in all its forms everywhere.

Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture.

Goal 3: Ensure healthy lives and promote well-being for all at all ages.

Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

Goal 5: Achieve gender equality education and empower all women and girls.

Goal 6: Ensure availability and sustainable management of water and sanitation for all.

Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all.

Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employ and decent work for all.

Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

Goal 10: Reduce inequality within and among countries.

Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable.

Goal 12: Ensure sustainable consumption and production patterns.

Goal 13: Take urgent action to combat climate change and its impacts

Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development.

Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forest, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

Goal 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.

Goal 17: Strengthen the means of implementation and revitalize the global partnership for sustainable development.

To achieve these goals as they relate to the education of girls is very fundamental to societal development. It will also break the gender barrier. Hence, the effective use of audio–visuals in, educating girls is essential in adequately preparing them to contribute significantly to societal development.

Use of Audio–Visual Materials in Equipping Girls for Sustainable National Development

The following are the ways by which the effective use of audio–visual materials can contribute to equipping girls for sustainable development.

Basing Learning in Sense Experience: Stressing the importance of audio–visuals Ngozi Samuel and Isaac (2012), agree that audio–visuals are very important and useful in education because the normal learner, in so far as the functions of his preceptor mechanisms are concerned, gains understanding in terms of multiple impressions recorded through the eye, ear, touch and other senses. Swank (2011), stressing the effectiveness of visual materials in leaning, estimated that about 40% of our concepts are based upon visual experience, 25% upon auditory sensation, 17% on tactile experiences, 15% upon miscellaneous organic sensations and 3% upon taste sensations. With the above assertion, it becomes clearer why audio–visuals are important in the teaching and learning processes. This is because they bring the contributions of the different senses together to get 100% clarity. Hence, the effective management of the chalkboard, microphones and good sound speakers in the classroom by teachers will help the girl – child in the class, no matter its size, to benefit maximally from the lectures.

Encouraging Participation: Natoli (2011), observed that “audio–visual materials are rich opportunities for the girl–child to develop communication skills while actively engaged in solving meaningful problems”. In other words, girl certainly like it more and learn better if they are engaged in important and appealing activities. For example, involving girls in bulletin–board displays will aid their

understanding through asking questions or when they join the teacher in dramatising an event or a process.

Serves as a Source of Information: Audio-visual materials serve as a good source of information because information can come from the good use of perceptual instructional materials, especially those provided from our locality. When they are effectively managed in the class, their familiarity gives a background for understanding the information. Mcnaught (2007) observed that audio-visual materials are very useful in teaching. He further stressed that where consistency of presentation is desirable, audio-visual materials are also useful. They provide experiences not easily secured in other ways and hence contribute to the depth and variety of learning.

Making Learning Permanent: Learning according to Saleh (2015) "is any improvement in behaviour, information, knowledge, understanding, attitude, values and skills." Hence, audio-visual resources can play a major role in improving an individual in all the above mentioned areas, thereby make learning permanent. On this note, Gopal (2010), noted that "audio-visual methods do seem to facilitate the acquisition, retention and recall of lessons learned, because they seem to evoke the maximum response of the whole organism to the situations in which learning is done. And perceptual materials readily associate themselves with the unique experiential background of each individual". Natoli (2011) also stressed that audio-visual materials are important in the teaching and learning processes because "Having seen something, most people remember; for whatever that thing was, it conjures up an image at a mere mention and can be talked about freely. In a similar vein, Dike (2013) opined that students forget because of lack of interest and opportunities to use the knowledge they have gained later on. Audio-visual resources can, therefore, contribute to the clarity of information presented by allowing students to visualize what is learned. This, according to Dike (2013), informed the dictum:

What I hear, I forget

What I see, I remember

What I do, I know

The author further the effective management of audio–visual materials in the teaching and learning process especially in large classrooms, helps to a large extent in retaining what was learnt, thereby making learning permanent. Students, especially girls are, therefore, able to easily retrieve information during examinations, because both the affective and psychomotor aspect of learning of the girl – child has been greatly heightened with the use of audio–visual materials in the teaching and learning process.

Challenges that Limit Effective Use of Audio–visual in Equipping the Girl–child

The following constitutes challenges that limit the effective use of audio–visuals in equipping girls for sustainable development:

Inadequate Infrastructure: In Nigeria, a formidable obstacle to the use of audio – visuals is infrastructural deficiencies. Computers are made to function with other infrastructural facilities such as electricity under “controlled conditions”. For the past fifteen years, Nigeria has been having difficulty providing stable and reliable electricity to every nook and cranny of the country. Currently, there is no part of the country which can boast of electricity supply for 24 hours a day, except perhaps areas where government officials live. Electronic equipment such as radio, television, video recorders and even computers have been damaged due to irregular power supply. When electricity supply is not stable and constant, it is difficult to keep high–tech equipment such as computers functioning, especially under extreme weather conditions as obtains in Nigeria. In rural Nigeria most inhabitants do not have access to electricity, thereby denying rural secondary schools the opportunity to benefit from the use of electronic equipment such as radio, television, video recorders and computers. The few areas with Internet access in Nigeria are found in urban centres. Environmental realities are difficult to manage because fans, sealed rooms and stable electricity are lacking in many urban homes and rural areas.

Inadequate Skilled Manpower: To effectively use audio–visuals in institutions in Nigeria, there should be locally trained workers to install, maintain and support these systems. There is acute shortage of trained personnel in application software, operating systems, network administration and local technicians to service and repair computer facilities. Those who are designated to use

computers in Nigeria do not receive adequate training; at worst, they do not receive any training at all (Okebukola, 2007).

Cost: The price of computer hardware and software continues to drop in most developed countries, but in developing countries, such as Nigeria, the cost of computers is several times more expensive. While a personal computer may cost less than a month's wages in the United States, the average Nigerian worker may require more than two years' income to buy one. Nigeria has over 6,000 public secondary schools. The majority are short of books, paper and pencils. Many of the schools lack adequate infrastructure such as classrooms, and only few are equipped with television or radio. Apart from the basic computers themselves, other costs associated with peripherals such as printers, monitors, paper, modem and extra disk drives are beyond the reach of most secondary schools in Nigeria. The schools cannot also afford the exorbitant Internet connection fees.

Limited Access to the Internet: In Nigeria, there are few Internet providers (that provide Internet gateway services to Nigerians). Such Internet providers are made up of Nigerians who are in partnership with foreign information and communication companies. Many of these companies provide poor services to customers who are often exploited and defrauded. The few reputable companies which render reliable services charge high fees, thus limiting access to the use of the Internet. The greatest technological challenge in Nigeria is how to establish reliable, cost-effective Internet connectivity. In a country where only about 0.6% of the populace has personal computers, the few reliable Internet providers who have invested huge sums of money in the business have a very small clientele. They have to charge high fees in order to recoup their investment in reasonable time. Nigeria has about 500,000 Internet subscribers. All Internet service providers in Nigeria are based in urban areas. For many years, the Nigerian government had a monopolistic control of telecom services, which does not allow for the competitive environment that reduces telephony rates.

Conclusion

Human factors or lack of the manpower to man the available audio-visual (A/V) is the greatest hindrance to the use of A/V resources in equipping girls for sustainable development in Nigeria. The place of audio-visual materials in the effective implementation of any educational programme cannot be undermined. Audio-visual materials perform such functions as the extension of the range of experience available to learners, supplement and complement lecturers' verbal explanations, thereby making the learning experiences richer and have a lasting impression on the minds of the students, especially girls. Audio-Visual materials supplement, clarify, vitalise and emphasise instruction and enhance learning in the process of transmitting knowledge, ideas, skills and attitudes. This calls for the teachers' resourcefulness and improvisation on the management of audio-visual materials during the teaching and learning process.

Way Forward

Based on the challenges that limit the effective use of audio-visuals in equipping girls for sustainable development, the following recommendations are made:

Federal and state governments should diversify their resources so as to encourage and promote the supply and funding of technologies in schools which will in turn increase the application of audio-visual materials in institutions of learning in developing the girl-child.

Management and administrators of institutions should ensure that credible and qualified personnel are recruited to perform audio-visual related activities, either in administrative or academic functions, so as to develop the girl-child for sustainable development.

Federal and state governments should ensure that the cost of audio-visual materials is regulated to ensure that schools can acquire and use them in the development of the girl-child for sustainable development.

Federal and state governments should ensure that infrastructure such as electricity is improved significantly, especially in educational institutions. This will in turn encourage and strengthen academic activities in schools, including the use of technologies which encourage audio-visual functions in developing the girl-child for sustainable development.

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Equipping Girls for Involvement in Physics and Mathematics for Sustainable Development

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