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The innovative use of arts in E-Education for sustainable development in Nigeria

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Abstract

This study identifies the role of e-education and arts which are valuable online teaching tools to help students and teachers at various educational institutions to understand the impacts of climate change and to learn the adaptation and mitigation strategies for sustainable development in Nigeria. This study is significant as it addresses the very heart of online curriculum delivery and the artistic methods used in e-education for sustainable development in Nigeria. It further recommends the innovative use of arts in e-education on the sustainable development goals which is vital in every community and institution in Nigeria today.

Keywords: Nigeria, arts, climate change, e-education, sustainable development

1. Introduction

Sustainable Development Goals (SDGs), which replaced the Millennium Development Goals (MDGs) were launched on September 25, 2015. The SDGs are 17 and have 169 targets, of which SDG 4 is on quality education which is critical to this study. This is because achieving quality education will serve as an enabler and a link to the achievement of other SDGs (Offorma & Chukwuma, 2017) ^[17]. In this light, concepts such as Education for Sustainable Development (ESD), as an integral component of quality education and a critical tool for sustainable development has gained global currency (UNESCO, 2020) ^[21]. ESD empowers people to change their thinking and approaches towards a sustainable future. This can be facilitated by enhancing opportunities for quality education on sustainable development (Donkor, Mazumder, Hosseinzadeh & Someshwar, 2020) ^[9]. This will promote social transformation through the redesigning of educational pedagogies and empowering people to build knowledge, skills, values and behaviours critical for sustainable development. This also underscores the need to integrate sustainable development themes, such as climate change within teaching and learning (UNESCO, 2020) ^[21]. Universities globally are increasingly recognizing their responsibility to prepare students and society to actively contribute to the mitigation of and adaptation to climate change. This role sees universities adopting and promoting carbon-neutral goals and practices (Cordero, Centeno & Todd, 2020) ^[8]. Climate change education (CCE) at universities may take the form of both formal, informal, and non-formal learning and teaching approaches, including nature immersive field projects, international case studies and higher degree research (HDR), among others (Molthan-Hill, Blaj-Ward, Mbah & Ledley, 2021) ^[16]. The intricate nature of the global climate as an interconnected system, comprising earth and socio-ecological systems, necessitates critical enquiries coupled with reflexive and transformative educational methods (Vogel, Schwaibold & Misser, 2015) ^[22]. There is hence a need to shift from simple content-based, silo approaches of pedagogy to a more systemic and 'deeper' enquiry that draws together bio-physical, socio-economic and socio-psychological understandings (Heimlich & Ardoin, 2008) ^[12]. Educated people are more aware of the risks climate change poses and are better equipped to make informed decisions about responses at local, national and international scales (Luetz & Beaumont, 2019) ^[14]. Climate change education tailored to different target groups aims at creating awareness of climate change and fostering the willingness to engage in climate change mitigation, adaptation, and transformation, thus fostering a development towards a low-carbon society.

While climate change education is important at all levels, from primary schools to universities, it is the higher education sector that is most in need of developing a systemic approach (Molthan-Hill, Worsfold, Nagy, Leal Filho & Mifsud, 2019) ^[15]. Which includes the enhancement of lifelong learning. This lifelong learning which can be achieved through e-education will ensure the growth and development of individuals, communities and institutions in Nigeria in a profound way. This study vividly identifies how art can be used innovatively in e-education for achieving sustainable development in Nigeria.

2. Methodology

Data used for this study is derived from online academic journals, magazines, articles, conference papers, textbooks and educational materials from libraries. The researchers gathered a lot of materials for the research but summarized the characteristics of the papers that centred more on “the innovative use of arts in e-education for sustainable development in Nigeria”.

3. Result and Discussion

E-education or e-learning is the delivery of education or any type of training by electronic teaching methods. This electronic method can be a computer or a smartphone where teaching material is accessed by use of the internet usually (Talentedge, 2021) ^[19]. Hedge and Hayward (2004) ^[11] defined E-education as an innovative approach for delivering electronically mediated, well-designed, learner-centred and interactive learning environments to anyone, any place, any time by utilizing the internet and digital technologies in concern with instructional design principles. E-education and E-learning involve the use of electronic technology to deliver education and training applications, monitor learners’ performance and report learners’ progress (Cisco, 2013) ^[7]. E-Learning, or electronic learning is the delivery of learning and training through digital resources. Although e-learning is based on formalized learning, it is provided through electronic devices such as computers, tablets and even cellular phones that are connected to the internet (Lawless, 2018) ^[13]. There is a general consensus according to Evoh (2006) ^[10] that modern ICTs are transforming various aspects of human activity, particularly the arts of teaching and learning. Improved and qualitative education no doubt is fundamental to the creation of effective human capital in the country (Charity, Nweke & Augustine, 2017) ^[6]. The skills relevant for both teachers and learners in our digital age include ICT skills, digital technology skills, and awareness of the benefits of e-education for sustainable development. Every level of education requires a curriculum for it to be meaningful, purposeful and practicable. The curriculum at all levels of education is the document that contains all planned and unplanned learning contents, experiences, activities, methods and evaluation guidelines, that learners are exposed to under the auspices of the school, to bring a total change in behaviour (Offorma & Chukwuma, 2017) ^[17]. Information and Communication Technologies include traditional hardware and software such as radio, television, motion picture, projector, camcorders and emerging hardware and software like computers, netbooks, mobile phones, e-book readers, personal digital assistances, interactive whiteboard, e-mail, e-learning, video conferencing etc. The upgraded teacher education curriculum in Nigeria should include the

acquisition of ICT skills and the use of e-education along with its numerous benefits and role in achieving the sustainable development goals in Nigeria. In E-education, information is disseminated online using the modern internet technology to relevant users and thereby ensures the achievement of the United Nations Sustainable Development Goals. The increasing globalization of education makes it necessary for educators and managers to be aware of the application of Internet technology in the field of human and sustainable development. With the advent of the internet, people, organizations, and businesses are better informed and connected to each other than ever before. Information that once took several processes and procedures to obtain is now readily available online (Anukaenyi, Onwuka & Obiozor, 2017) ^[4]. Thus, e-education has become a tool of extreme value for achieving peace, progress and prosperity in Nigeria in our 21st century.

3.1. Understanding arts and its role in achieving the SDG 4 and others

Arts can be defined as the expression or application of human creative skill and imagination, typically in a visual form such as painting or sculpture, producing works to be appreciated primarily for their beauty or emotional power (PGC, 2020) ^[18]. It can also be defined as the various branches of creative activity, such as painting, music, literature, and dance. The seven major forms of art are painting, sculpture, architecture, literature, music, cinema, and theatre (Artincontext, 2020) ^[5]. In the use of poetry, pictures are painted in words to evoke emotions towards achieving a particular goal. Arts such as poetry and music have been discovered as valuable tools in e-education for sustainable development in Nigeria (Anabaraonye, Ewa, Hope, Anthony & Okoro, 2020) ^[2]. Levy, 2001 defines poetry as ‘a way of negotiating experience, of attending to external and internal worlds, bringing diverse worlds into close relation for arriving at renewed perception’. Music is also a beautiful artistic work and has also been discovered to be a powerful and valuable tool which can be used to educate both online communities and institutions in Nigeria about the impacts of climate change and ways to adapt and mitigate effectively for global sustainability (Anabaraonye, Ewa, Hope, Anthony & Okoro, 2020) ^[2]. Music can also be used in a special way to teach students and teachers online about the sustainable development goals and ways to achieve them. It passes the message to the listeners in a pleasurable manner and has the good intention of achieving a pleasurable result in climate change adaptation and mitigation for global sustainability (Anabaraonye, Ewa, Hope, Anthony & Okoro, 2020) ^[2]. Education has the objective to provide learners with the knowledge, skills, values and attitudes to overcome global challenges. Climate change poetry can help in language development, creative language skills, creativity, writing skills, self-expression, and in the development of natural rhythms while helping to educate the community on climate change adaptation and mitigation. Poetry is fun and exciting and beautiful and can be used effectively for climate change education for global sustainability (Anabaraonye, Nji & Hope, 2018) ^[3]. Poetry just like music helps individuals to appreciate the harmony of nature and the serenity of fertility and greenness. Poetry and music which are forms of art can help us to better see the beauty of keeping the environment clean and green thereby achieving a healthy and sustainable environment for

the betterment of communities and institutions in Nigeria. Poetry can be used online in a unique way to communicate to institutions and communities across Nigeria on the green entrepreneurial opportunities in climate change adaptation and mitigation for sustainable economic growth and development in our continent (Anabaraonye, Okafor & Eriobu, 2019) ^[1]. Poetry and music have always worked as therapeutics together towards achieving similar goals.

3.2 The role and benefits of e-education in achieving sustainable development in Nigeria

Unlike the traditional method of classroom teaching, E-learning has proven to be a value-for-money option for people. By enrolling oneself in an online course, a student in Nigeria can take up a course in an American university at a fraction of a cost. Therefore, it is highly cost-effective for a student (Talentedge, 2021) ^[19]. Even for a college or university, giving an online course would mean not having to bear the infrastructural and maintenance costs that come up with any physical building and equipment. Hence, we can say that it is cost-effective for both students and educators. E-learning can be achieved anywhere (Lawless, 2018) ^[13]. A student does not need to be physically present in a class and the teachers do not need to reach to a place on a scheduled time to deliver a lecture. A person can study from the comforts of his home through E-learning. You can also access it while travelling. In this way, it is good for professionals who can't leave their job but still want to study. This is a type of distance learning that is highly functional because of its accessibility and flexibility (Talentedge, 2021) ^[19]. Another benefit of E-learning lies in its flexibility of timing. You can enrol yourself in a course and then you are free to access it any time you can as long as you finish the entire course within a stipulated time range. Some courses are in fact free from any time limit. You can take those up at your own pace. Thus, E-learning can be 'on-demand' as well. You can demand where you want to study and at what time you want it (Lawless, 2018) ^[13]. There are several related terms used today to describe e-learning such as e-education, online learning, internet learning, distance education, electronic learning etc. It is as interactive as any traditional form of learning. It can either be live or pre-recorded. It is graded and certified just like any other mode of teaching. E-learning has proved a successful method of learning and has a bright future ahead, especially in the post covid-19 era where the world has gone digital. The education systems around the World are under increasing pressure to enhance the knowledge and skills of the students to fit into the 21st-century job requirements and e-learning skills have become more vital than ever before. E-education will go a long way to help Nigeria achieve SDG 4 and other SDGs. Tierno, Bribena and Nwosu (2011) ^[20] stress that the internet as an information source, is uniquely important because it allows the library to provide information beyond the confines of its own collections; provide access to the teaching, learning, and research activities. With the advent of information and communication technology (ICT) infrastructures such as the Internet, e-mails, and the Global System for Mobile Communications (GSM); librarians, lecturers, students, researchers, and non-academic staff no longer have to travel far to retrieve information. Neither do they rely on print materials only (Anukaenyi, Onwuka & Obiozor, 2017) ^[4]. In justifying the essence of the internet revolution in the

educational sector in Nigeria, Tierno, Bribena and Nwosu (2011) ^[20] recounted that in the early 1990s, the library was the major source of information embodied in books and journals, which were often outdated. Other complemented sources were lecture notes, photocopied materials, seminars, and conference papers.

4. Implications and Conclusion

Arts should be well recognized and used as a valuable tool in e-education for sustainability in Nigeria. It is also good to know that climate change e-education is loaded with green entrepreneurial opportunities and has the capacity to provide enlightenment and employment for the unemployed and underemployed youths in Nigeria. Children and youths in Nigeria must be well educated online on the issues of climate change and encouraged to deploy their skills and talents which should be used effectively to help overcome the global challenges facing the world today (Anabaraonye, Nji & Hope, 2018) ^[3]. In Conclusion, poetry and music which are forms of art, provide entertainment, employment, education and emotional healing to many of our youths in Nigeria. They should be gainfully employed in E-education thus helping to achieve sustainable development in Nigeria.

5. Conflicts of Interest: The authors declare no conflict of interest.

6. Data Availability Statement: The qualitative data utilized for this study will be made available upon reasonable request.

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