

## **E-LEARNING AND RESOURCES MANAGEMENT FOR SUSTAINABLE EDUCATION IN CONTEMPORARY NIGERIA**

**Mbonu, Obianuju Adaobi, Ph.D**, *mbonu@fcetumunze.edu.ng*  
Dept. of Educational Management & Policy, School of Education  
Federal College of Education (Technical) Umunze, Anambra State.

**Udensi, Ukaku Solomon, Ph.D**, *udensiuka2018@gmail.com*  
Faculty of Education  
Peaceland University, Enugu State.

### **Abstract**

Educational resources comprise of human and material resources; and resources are the key ingredients for the most essential functions of school administration in contemporary Nigeria. Hence, it is seen as the instrument for implementing the educational programmes of schools. The use of e-learning technology (mobile learning) in schools for sustainable education in contemporary Nigeria will not only help in resources management in education but also in making teaching and learning stimulating, interesting, interactive and engaging with teachers and students. Thus, teachers and instructors need to be educated so as to step out of the present conventional face-to-face methods of classroom teaching to the digital accepted platform suited for teaching using e-learning method. This should be done if government at all levels put in place resources centers for organization, management and maintenance of educational resources in Nigeria. The paper therefore, highlighted the concepts of; education, sustainable education, resources and resources management in education. Others are benefits and challenges of e-learning as well as conclusion and recommendations on the way forward.

**Key words:** Education, e-learning, sustainable education, resources, resources management in education.

### **Introduction**

Teaching is all about Communication and this should be done in accordance with what is in vogue in the contemporary society today. Introducing what students needs and enjoy most in teaching nowadays could only be achieve if students are allowed to be fully involved in all classroom academic activities. This is because technology is changing the way and manner of teaching and learning in the classroom. As a result, today's teachers must learn new methods of communicating with the students in the language, ways, methods and styles they could understand if really we want to learn from the use of e-learning (Olukemi, Oluwakemi and Maduka, 2018).

This is because teaching has progressed from chalk and chalkboard to e-learning which can take many forms such as the use of interactive whiteboard, blended learning, online learning and mobile learning amongst others. These types of technologies are the ones through which e-learning takes place for today's learners who belong to the generation that grow up with these new technologies.

E-learning according to Noah (2015) is a subset of information and Communication Technology (ICT) which encompasses information through electronic devices. It is a tool regarded as instrument or devices use to improve teaching and learning instruction, a remedial tool for learners and a manager for education services delivery. This according to Naidoo (2012) helps to make lesson delivery very flexible, interesting, stimulating and interactive. E-learning is therefore fast taking the centre stage in contemporary Nigeria society, particularly in education sector as against the tradition face-to-face method of teaching and learning. This new method of teaching and learning and its attendant strategies are being canvassed by stake holders in education as blended learning strategies owing to their inspirable link with Information and Communication Technology (ICT) and other technology facilities of today's world (Ilo;2020). As Resource management in education is by far one of the most important aspects of education process, it is pertinent to give it great priority and attention it deserves, if teaching and learning is to be effectively and adequately managed for sustainable education to place in the classroom, through e-learning method. Therefore, this paper defines the concepts: education, e-learning, sustainable education, resources and resource management. Furthermore, it also examined activity theory of e-learning, benefits of using e-learning for sustainable education in contemporary Nigeria society for resource management, challenges, conclusions and recommendations were made on the way forward.

### **Concept of Education**

No nation can strive without education of its citizens. This is because education, is the instrument par excellence for achieving National development (FRN; 2004 and 2013). Hence, education is regarded as the bed rock of any society since it brings about change in society. It equips the beneficiaries with the needed knowledge, skills and competencies, which make them (individual) functional and effective in their respective culture or society. According to Ofodile (2017), education is the process by which a person in the society or a cultural settings, systematically acquires the basic practical knowledge and skills desirable attitudes, vital to the overall development and growth of his community. That perhaps, may be the reason(s) why today, nations are judge by the quality of education it gives to its citizens.

It is therefore necessary that all access to it should be an inclinable right of every citizen if national development is to be achieved (Nwizu, 2011). This is because education creates and continues to recreates consciousness of individuals in innovations, creativity,

science and technology. Based on the crucial role education plays in socio-economic and political development of the country, education requires quality inputs and outputs if it is to provide the enabling environment for the actualization of the philosophy and goal of the nation and individual needs. This means that quality quantity education is "Sine qai non" upon which national develop on it is to be achieved.

Education conclusively is the total development of the individual child through acceptable methods and techniques according to his abilities and interest to meet up with needs of the society and for the individual to take his rightful place and contribute equally in the enchantment of the society. Education is therefore a process by which individual are assisted formally through proper directions and guidance to develop their capacities for their own benefits and that of the society. This implies that, education is a process of facilitating learning of the acquisition of knowledge, skills, values, beliefs, customs and habits (Nwokocha, 2018).

### **Concept of E-Learning**

E-learning is a formalized learning. It is provided through electronic devices such as computer, tablets and cellular phones that are connected to the internet. This makes it easy for users to learn anytime, anywhere. It is education delivered online through digital resources such as internet, multimedia and CD Roms.

E-learning according to Olando (2013) connotes learning or knowledge one acquired. It is derived from using computer aided gadgets. According to Ogbonnaya (2017), e-learning is a tool for improving teaching and learning in school and a remedial tool for learners with difficulties. Emesini (2011) regarded it as a good access route to teaching, learning and research materials. According to Naidoo (2012), e-learning makes lesson delivery of instruction in the classroom environment long lasting. Onyekwelu (2016) described e-learning as utilizing electronic technologies to access educational curriculum outside of the traditional classroom. This means that, e-learning is not classroom base teaching but rather, it is a programme mainly done online. It is used to bring classroom teaching and learning to the door steps of the learners (students) even in the remote part of the country. This enables students, all over the country or any part of the world to receive lessons at the comfort of his home, parlor, bedroom, car and hostel without any cause to come in contact with the teacher in the traditional face-to-face method of teaching and learning and research materials (Naidoo, 2012).

In a nut shell, e-learning according to Olando (2013) is learning conducted outside the classroom via electronic media, especially via the internet. It offers the learners accessibility to digital classroom irrespective of their location. It's features include; accessibility, flexibility, interaction and prompt feedback as well as gingering collaborative learning which make it suitable for teaching. E-learning stimulates

motivation and encourages engagement as digital learning which is an alternative to traditional classroom setting. According to Ghali (2008), e-learning is a start of learning that happens when the learner takes advantage of the learning opportunities offered by e-learning technology. To Aicha (2014), e-learning aims at delivering instruction to students not present in the classroom while Said (2015) sees e-learning as an instruction carried out in an undefined location. The views of these scholars and researchers about e-learning is the same as they see it as learning activities done anytime and anywhere outside the normal classroom using electronic devices such as tablets, laptops and smartphones, thereby expanding boundaries both inside and outside the school environment.

### **The Concept of Sustainable Education**

Sustainable means able to produce for an indefinite period without damaging the environment or resources. It is also the ability to maintain an idea for future generations to benefit from. It enables society members to meet their needs and express their greatest potential in the present world. To achieve this, the people continuously and steadily ensure they maintain a certain level of support. Sustainable education on the other hand, is used to train human mind to function effectively. This is because when the mind is trained and transformed, it has the capability of dictating what is right and wrong. He (the man) will come to realize the meaning, importance and essence of living a useful and beneficial life to the community. It is only through sustainable education that the citizens of the country are empowered to realize their potentials. This empowerment comes with the quality education given to the people. Therefore quality education is a prerequisite for sustainable education. If the education system at this level is strong enough for its recipients to be functional members of the society, then sustainable education is assured (Dienye, 2011).

Consequently, the purpose of sustainable education therefore is to help and lighten the mind and develop national consciousness in the individual. The purpose is to ensure those sustainable educational programmes, their implementations, learning environments, facilities and personnel are of the right quality to meet the needs of the present learning environments, facilities and personnel are of the right quality to meet the needs of the present contemporary Nigerian society without compromising future generations ability to meet their own needs. Thus, the survival and development of any nations depends on the quality of its sustainable education (Adedeji and Bamidele, 2003).

To ensure sustainable education is maintained in contemporary Nigeria, students should be engaged in effective learning by ensuring they participate actively in classroom activities, assignments, projects and home works. Secondly, effective teaching should be embarked upon by teachers by ensuring that the quality of their instructions are

challenging enough to trigger critical thinking among students so as to meet the required standard. This can be achieved by involving the students in research or exposing the internet and relevant textbooks (Akinpelu, 2001). For quality education to be imparted in students through sustainable education in contemporary Nigeria, some unethical practices such as irregular attendance to school by students and teachers, examination misconduct, poor supervision of students works and strain cordial relationship between the students and the teachers must give way to that of love while the teachers desist from making themselves unwilling allies to these problems (Obanya, 2012).

Government on their own parts should ensure that curriculum of instruction are diversified to include changes in science and technology as well as entrepreneurship, interpersonal and intrapersonal skills if nation building is to be achieve the quality of infrastructural facilities and equipment in schools also need to be addressed if our education system should produce educated and responsible citizens that can bring about sustainable education in our contemporary Nigeria. Therefore, for sustainable education to be relevant in our contemporary Nigeria society, through the use of e-learning methods, educational programmes must be geared towards re-orientation of societal values by developing public awareness and understanding, and provide training for all sectors of education both in public and private schools. This stems from the fact that the world today is knowledge-driven and anybody who does not follow the current event in information and communication technology (ICT) will have himself/herself relegated to the background while still alive (Ekanem, Anijaobi-Idem and Akuegwu, 2011).

In this regard, the provision of ICT facilities such as computers, laptops, Internet facilities, compact Disk, smart phones, Projectors CDS, Conferencing, Interactive television and Deck stop to mention but few becomes imperative. School administrators, and academias should ensure there is internet connectivity in their respective schools so as to help enhance their capability for research and information about content materials and concepts through multimedia and collaboration with their Colleagues (Obanya, 2012).

### **Concept of Resources**

Resource is anything that can be utilized to achieve an objective or goal of an institution or organization such as schools or industrial firms. It is in various forms; human, material, money or fund, infrastructural facilities, facility and equipment amongst others. According to Nwokocha (2018), resources are any means by which production and services are provided for the benefit of an original clientele and for the profitability of the organization itself, depending on whether it is a profit oriented or a social service provider. Thus, resources are necessary ingredient that can assist, stimulate and motivate learning in teaching-learning environment. According to Akudo (2016) and

Ezeoka(2009) and (2018), anything that motivates, stimulates and assists learning as well as things that simplify learning in the learning process in the classroom is known as a resources. A resource is therefore anything that is planned to contribute to education enterprise such as school plant, teachers, materials and equipment in the school environment, libraries and museums in institutions.

Conclusively, a resources can be considered as anything or an object of study of stimulus used to make students study. It is on this premise that Onwuka (2009) opines that among all the resources, human resources hold and coordinates other resources. This is because no organization or institution, not even the best designed one can be guided by well made plans without all the necessary equipment (resources) at it's disposal to achieve its performance potentials. According to him, this is because they use their intelligence, talents, abilities, knowledge and so on, to utilize the other resources to achieve the aims of education.

This means that resources are something that one uses to achieve an objective. For example, raw materials or personnel used to deal with difficulty or resources one supply to another person. They are at times regarded as personal qualities that help an individual or group to deal with difficult situations. In primary, secondary and tertiary institutions, resources are books and equipment that provides information for teachers and students. The information they obtain assist them in teaching and learning, research and other education related materials. In other organization it can be regarded as the mineral or other natural resources exploited to increase the wealth of the nation, but in education, it is those materials used to enhance teaching and learning.

These resources used in schools are stored in a place called educational resource centers. Thus, educational resource centers are central pools of teaching and learning materials, equipment and facilities for production of materials, Storage, indexing and retrieval, as well as advice, servicing and loan system for the purposes of improving the quality of instruction and extending knowledge (Onyejemezi;1977).

### **Concept of Resources Management in Education**

Resources in education system are those factor elements that are required in adequate number, quantity and quality for effective organization and management of education system. These elements according to Olagboye (2004), Nwokocha (2018) and Ogbonnaya (2018) include; human resources (staff and students and stake holders in education), financial/money, material resources (land, mineral resources, physical facilities and equipment) and information (radio, television, books, smart phones, computers, laptops, CD ROMS) etc. Others are processes of planning, organizing, coordinating, leading, directing, reporting and a number of other variables needed for

effective organization and management of education services. All these input resources that are needed for smooth and effective running of the education system is referred to as resources management in education.

The importance of resource management in education system therefore cannot be overemphasized. This is because of the critical position it occupies in education system. In primary, secondary and tertiary institutions as well as notable organisations, it is made up of departments, units, sections and other hierarchies of authority upon which it operates. Information flows from one section, units and departments in vertical and horizontal order two different arms. It therefore requires effective coordination and needed in field for it to succeed in terms of human and material resources. This is because resource management in any organization or institutions according to Aruyaogu (2016) and Udeuba (2018) is the art of effective coordination of all activities of men and material resources through other people to ensure the achievement of education system.

Education managers therefore need to handle all the materials at it's disposal (chairs, table, computers, internet facilities, teaching materials technological equipment morning and machines), under their custody very carefully. For resources to be effectively managed, educational managers should carry out a feasibility study to know the viability of the equipment, make proper planning of its management by setting up resource management committee to evaluate, coordinate and account for funds, materials and other equipment put under their care.

Summarizing resources management in education, Adeogun (2002) noted that the rationale for this include increase efficiency in the education sector in terms expenditure to education, budgeting, trained personnel, staff development programmes, building physical facilities and equipment, cost effectiveness. Productivity and communication skills. With the above reasons, it is crystally clear that resource management in education system is an integral, part of the system.

Effective utilization and management of these resources Nakpodia (2010) noted is very important to ensure that they are not lost due to fire out break and rain storms due to damage, decay and misuse by staff and students. The optimal goal of every School administrator is therefore how to ensure that the few available resources are effectively maintained, preserved and used as replacement of those lost or damaged are not easy to replace. The effective development, maintenance, preservation and purchase of equipment to a large extent is dependent on the training they receive on resource organization and management.

The purpose of resources management in educational institution according to Ike-obioha and Ikwuegbu (2017) is to minimize wastes, resource rationalization, viability indicator,

wealth creation, quality control and for the safety of the resources. This is because, resource materials if effectively managed and used will make learning meaningful, interesting and stimulating thereby making learning more permanent and usable. Others are to expose teachers and students to have more access to information and direct interaction with the learner in acquisition the longer retention of facts learn.

### **Benefits of Using E-Learning for Enhancement Sustainable Education in Contemporary Nigeria for Resources Management in Education**

Having explained e-learning, education, necessary resources, sustainable education and resource management in education, it is necessary for us to look into the benefits to be derive by school administrators or managers and stake holders by using e-learning to enhance teaching and learning in education in contemporary Nigeria.

E-learning will help greatly to the development of education as there will be improved Completion and retention rates of Students. This is because, learning only happens when instructional content of the subject matter is completed and the key points retained. Thus, using e-learning to create engagement of student learning with their teachers will lead to course completion and renting rates. As the e -learning is tailored to fit into the device usage habits and the learning patterns of today's learners thereby enhancing effective learning.

E-learning creates an avenue for information system, monitoring and evaluation, as it helps in highlighting current issues of educational planning, organization, coordinating, directing and analyzing their context. This is because e-learning is ubiquitous hence people or students can learn anytime, anywhere. This is made possible as learners are believed to always have their laptops or smart- phones with them every time. All that is needed is the agreement on the time of the lecture and anyone who is connected at that time gets hooked to the lesson.

E-learning gives insight as to how to structure administration and management of education by defining appropriate strategies for educational change. Using e-learning to engage learners towards the establishment of online learning communities is more effective in enhancing e- learning devices through collaborative learning. It assured participation of learners. This will help rules out truancy in school as everybody no matter the distant have access to e- learning classroom provided he or she has his phones with him. This helps in better understanding of the validity of education in its own empirically observed specific dimensions of which the outcome will be to turn out good graduates with high productivity rates.

Synchronous learning will take place between the online instructor and online recipient (student) as learning will take place concurrently as all groups will learn at the same time.



This will also afford the teacher the opportunity to introduce different types of content using videos, audio files and images in the content to illustrate his teaching thereby making teaching interesting, stimulating, interactive and fun.

E-learning helps the teacher to reach out to all his students unlike the traditional method of face-to-face which does not give room for large audience. Using it will also afford students the opportunity to know new schedules, different forums, various conferences, and social activities thereby helping to decrease the communication gap between students and their respective institution of learning. Students using e-learning are generally interested and fond of studying in this digital age without need to visit the library. Instead they prefer to use apps and book search apps to learn. These makes learning easy as search for appropriate study materials are in their mobile application. It help to keep them closer to the study material and help them segregate their learning materials from the web. This process helps both the teacher and the students to explore different learning environment in their Smartphone apps which is a total departure from the conventional face-to-face classroom. This not only makes teaching stimulating and interesting but enhances total confidence on both the learner and the teacher. Both the learner and the teacher have opportunities to discuss various topics via this application which before they would not have the opportunity to cover due to tight schedule and limited time for quiz, assignment, tests, projects and review or evaluation progress.

Learners prefer methods that are helpful and stimulating that will help them acquire higher quality of performance both in the internal and external examination when learners are able to access information or retrieve information effortlessly using their mobile phone device, learning will be facilitated easily through the adoption of e-learning method. For e-learning to work effectively in our contemporary society, educational managers, stakeholders, staff and students must possess the following management skills which Bland ford (2006) identified as crucial to the development of resources management in education. These are the related skills, technical skills, human relation skills and conceptual skills. To ensure both students and teachers acquire knowledge of e-learning, and accept it as a new method of teaching and learning in our contemporary system, certain things have to be put in place. These are creation of awareness on the benefit of e-learning in teaching.

Further, training of teachers and instructors who will teach the students. Thirdly, purchasing and equipping different educational institutions with the necessary gadget for internet facilities devices and lastly ensuring that learning environment for e-learning application is conducive for learning since students are more independent and free to choose their mode of communication (Ogbonnaya; 2017).

### **Challenges of Using E-Learning For Sustainable Education In Contemporary Nigeria for Resources Management in Education**

The e-learning although is good for the development of our educational system due to the influence of information and communication technology (ICT) but it has problem of acceptability by school community. This is because of the fear expressed by some teachers that the new method of teaching and learning has come to take over their job. Secondly, the ban impose on students by some school authorities who felt it will affect students concentration in the classroom. Similar to this is the issue of indigent high school students who could not afford money for smartphone which their parents regard as luxury goods that they cannot afford due to their socio-economic background. Thirdly, using the device for learning is an issue where there is no internet services or infrastructural facilities for its operation such as electricity and internet connectivity. This could pose a big challenge to the user of the internet services from the service providers. Fourthly, is the issue of mobile learning platform design for e-learning. This is a problem because most of the devices are develop to accommodate wider platform and not smaller one as smartphone. To this end, efforts should be made to have a platform as short and attractive as the content, limit high level of graphics, have HTML5 supportive devices and interactive design that can be accommodated on smartphone or any other devices.

For e-learning to succeed in our contemporary Nigerian society and help in resources management for sustainable education Asiimwe, Gronlund and Hatakka 2017 are of the view that, teachers who are not exposed to the workings of the e-learning devices and the benefits derived from it should be given opportunities to develop interest and be integrated in teaching and learning. Students on their own part need awareness that e-learning devices affords them the opportunity of interacting with their colleagues anytime and anywhere as well as get feedback to questions and answers. And those of them who are experts in the use of internet or electronic devices but do not see it as an important means of learning should be made aware of its importance. It is the duty of resources managers in education administration makes sure this work.

### **Conclusion**

Resources in education management include human and material resource and finance. The absence of any of them will affect the input and output in educational management and development. Resources management in education make use of human variables as talent, experience, skills, competence, attitude and ability of the managers and administrators to plan, organize, coordinate, lead direct evaluate and effectively enhance productivity and performance. It is how the managers of education and teachers are able to use e-learning as a new electronic device in teaching and learning that will help sustainable education in our contemporary Nigerian society for resources management in education. Although there are merits and challenges associated with the application of e-learning in education, the fact still remains, it is the best option left for effective

organization and management of teaching and learning in modern day science and technology dominated by Information and Communication Technology ICT .

### **Recommendations**

Based on the discussions of the study, and the conclusions drawn, the following recommendations are made that; Government should as a matter of urgency through the assistance of education managers and stakeholders in education constitute a committee for maintenance, organization and management of educational resources centers in schools.

Government both at the federal and state levels should collaborate with government agencies, philanthropists, university authorities as well as college authorities to establish in schools, colleges of education, monotechnics, polytechnics and universities educational resources centers to house and store e-learning materials. Stakeholders in educational sector and government at all levels should create awareness to both the teachers and students involved in e-learning to know the benefits of having digital classroom through the use of e-learning apps and their advantages.

Government at federal and state levels should organize workshops, conferences, seminars, in-service training, on-the-job training for students, teachers and instructors from time to time to improve their knowledge and skills on how to design a lesson plan on course content suitable for e-learning platform. Sufficient internet infrastructural facilities and equipment should be built, maintained, expanded and stored for use in schools throughout the country to encourage e-learning in schools. This is because the available ones do not have the capacity to carry the load of technology devices with their respective schools and therefore should be made functional. A good mobile learning environment policy should be put in place with rules and regulations guiding its learning environment spelt out. This is because students are more independent and as such free to choose their mode of communication. This will make it possible for teachers and instructors on the use of e-learning in classroom teaching and learning to know the dos and don'ts governing the e-learning process. There should be a uniform guideline from the federal and state government on resources management practice in education in all the educational institutions.

Finally, the curriculum to be used in all the educational institutions should be uniform in both government and private institutions since we are looking towards a better teaching methods using e-learning in our schools.

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