PHILOSOPHY OF EDUCATION AND THE NECESSITY OF E-LEARNING FOR SUSTAINABLE TEACHER EDUCATION IN ANAMBRA STATE, NIGERIA

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Abstract
Philosophy of Education develops an open attitude in teachers that make them receptive to new ideas which on basis of better reasoning is preferable to the existing one. E-learning is one of the new ideas that is necessary for teachers in this technological era. Teacher education institutions should lead in e-learning process which requires competence in managing the required e-learning devices. This study examined the necessity of e-learning in the light of philosophy of education for sustainable teacher education in Anambra State Nigeria. Three research questions guided the flow of the study. The population for this study consisted of all the 258 computer science education lecturers in the four government – owned teacher education institutions in Anambra State. No sampling was done owing to the manageable size of the population. Data were collected with researchers – developed questionnaire which was validated by two experts and yielded a mean reliability coefficient of 0.84 using Cronbach alpha statistics. Mean ratings were used to answer the research questions. The study found out that computers, laptops, standby generators, and internet facilities are the topmost e-learning devices necessary for sustainable teacher education in Anambra State. The study further revealed that making students better prepared to fit into the current technological changes and impacting students' learning with higher order of thinking are the topmost benefit to be derived from e-learning for sustainable teacher education. Based on the findings, the study recommended among other things that the federal and state governments should adopt e-learning in all teacher education institutions through effective policy implementation and provision of required resources.

Key word: Philosophy, Education, E-learning, Sustainable and Teacher Education

Introduction

There is an emerging worldwide interdependence of individuals and nations through the information and communication technology (ICT) which has created new global networks without borders. This new technology has reduced the world to a global village

with significant impact in the field of education leading to electronic teaching and learning known as e-learning. According to Moe and Blodget (2000) the e-learning has opened up opportunities for individuals to access information and learning programmes through the internet. This implies that e-learning is revolutionalizing education by removing distance and making knowledge more accessible to all. E-learning is a means of education that incorporates self-motivation, communication, efficiency and technology. Austin (2021) opines that e- learning is the use of electronic devices or technologies to establish an educational platform to teach programs, courses or degrees. He further asserts that e-learning gives room for real-time interactions between teachers and learners to take place which can as well be done from the comfort of their homes. It also helps one to reduce cost and to study at one's pace. It encourages professional networking, global cultural exchange, wide range availability of courses, easier teacher-student interactions as well as access to subject matter experts. On another light, Stauffer (2020) asserts that E-learning gives both the learner and the teacher the opportunity to be together in a place and at the same time use digital tools to enhance the teaching-learning experience. E-learning is also a flexible term used to describe a means of teaching through technology to create the best instruction possible. This means that e-learning takes into account different students' learning difficulties, especially the students' reported anxieties in the classroom encounter (Mkpa, 2004). E-learning simply means electronic learning. Adeosun (2010) refers to e-learning as comprising the combination, implementation and relationship of teaching and learning via different ICT media such as computer, internet, multimedia, projector, video tapes, CD-ROM, flash drives, satellite, telephone, television among others. Additionally, scholars, the world over, have identified and explored a multiplicity of e-learning. It has been classified in different paradigms, some of which Stauffer (2020) identified as follows; Computer-Managed Learning (CML), Computer-Assisted Instruction (CAI), Synchronous Online Learning, Asynchronous Online Learning, Fixed Learning, Adaptive E-learning, Linear E-learning, Interactive E-learning, Individual E-learning and Collaborative E-learning. It is believed that the incorporation of E-learning in teacher education institutions will enhance the quality of teachers produced and make for the successful achievement of desired goals.

Many nations across the globe encourage teacher education as it is believed that it is through the teaching profession that professionals of other fields of study are groomed. However, what constitute the meaning of the concept of teacher education has been given varying definitions by different scholars. Cavallari (2023) sees teacher education as the process of providing teachers and prospective teachers with the skills and knowledge necessary to teach effectively in a classroom environment. Lukman (2021) on the other hand is of the view that teacher education is an indispensable concept for the teachers at all levels of education, bearing in mind that the system of education differs at every level. He further adds that it facilitates the identification and development of teaching skills in

the teacher and potential teachers as well as prepares the teacher and would-be teacher in the direction of performing their jobs in the right way. Kapur (2018) adds that teacher education comprises the various formal and non-formal activities and experiences that help to improve the altitude of a teacher in the area of conceptual and theoretical framework and qualify a person to assume the responsibilities of the members of teacher education profession as well as carryout their functions as teachers, effectively. To further buttress the functions laden in teacher education, Jamal (2022) adds that teacher education is most concerned with the who(teacher), whom(student), what(content) and how (strategy or teaching technique). From the fore going, one can see that the goal of teacher education and teacher education institutions is to ensure the development of teaching skills which will translate into achieving quality education and effective teaching and learning. It is also believed that the emergence and prevalence of E-learning in the educational institutions will help achieve the contemporary goal of training digital and modern teachers.

This emergent technology is accepted as a veritable tool for education services delivery. Teacher education institutions have to align with this emergent ICT. This is necessary for sustainable teacher education because according to UNESCO (2011) ICT provides teachers and students access to vast stores of knowledge beyond the school as well as multi-media tool to add to this store of knowledge. The huge growth of computer, the internet and other electronic devices provide opportunities for the development of quality teaching and learning.

Teachers are the key factors in any educational innovation. They need training in the use of the new technology (e-learning devices) to enhance teaching and learning. According to Marriot (2009) e-learning enables teachers to combine traditional methods of teaching with the internet facilities. It implies that e-learning compliments the work of teachers because extra materials and questions could be provided on-line for students. It is clear that educational system of the society cannot grow above the level of the teacher who implements the curriculum. Hence, e-learning becomes difficult to implement without the full co-operation and support of teachers and lecturers (Eyibe, 2004). As the world is increasingly getting technologically driven, globalized, competitive and competent-based, the role of teachers for effective e-learning programmes becomes critical. As the students need media competence to manage knowledge independently, teachers on the other hand have to be willing to structure content differently and put the students at the centre of activities (Osuala, 2009). One of the surest ways of actualizing this is by ensuring that teachers are exposed to these realities in teachers' education institutions.

To design and develop on-line courses, teacher education institutions require a thorough knowledge of the main components of on-line teaching and learning. Khan as cited in Akuegwu, Ntukidem, Ntukjidem and Jaga (2014) identified such components as content

development, multimedia, internet tools, computers, storage devices, service providers and browsers. E-learning center on the students. In this case, the teacher acts as a resource person or facilitator meeting students at continued contact and increased guidance and feedback. Hedge and Hayward as cited in Ali, Hodson-carlton and Ryan (2015) opined that e-learning offers well designed, learner centered and interactive learning environment to anyone, any place and anytime by utilizing the internet and digital technologies in connection with instructional design principle. It accommodates different types of learning styles. Students learn at their own pace and through a variety of activities. The greatest advantage of e-learning is that it is learner-centered. It is more focused on the learner and also of great interest to the learner. Learners are allowed to select learning materials that meet their level of knowledge, interest and what they need to know to perform more effectively (Ogbuagu and Eyibe, 2016). In the 21st century, teacher education institutions need to be engaged in e-learning to become relevant and competitive in this increasingly technological driven world. It is also necessary that teacher education institutions should be making a paradigm shift as shown below;

Figure 1

S/N	FROM	TO
1	Institution building	Knowledge infrastructure such as laboratories, radio, TV and internet services.
2	Lecture halls	Individual learners.
3	Lecturers as repository of Knowledge	Lecturers as facilitators.
4	Some textbook and few audio/visual aids.	Multimedia materials such as print, audio and video.
5	Lecturer teaches students to learn.	Lecturers and students motivate themselves intrinsically to learn the technological use of ICT.
6	Lecturer teaches students.	Lecturer shows students where to find the information and motivates them to read it.

It is based on this background that the current study sought to examine the necessity of e-learning for sustainable teacher education in the light of philosophy of education in Anambra State-Nigeria. The researcher believes that an empirical investigation of this kind could give teacher education institutions reasons to consider utmost actualization of e-learning for in teacher education.

Statement of the Problem

Philosophy of education prepares an individual to seek for means of improvement rather than accepting the past or present as final and immutable. Teacher education is a very important aspect of education that needs improvement on the quality of teachers produced. This is because no nation can develop above the quality of its teachers. The

twenty-first century has ushered in e-learning as a modern technology that makes for easy teaching and learning. Scholars agree that improvement on the quality of teachers through e-learning is of great advantage to the nation's manpower. As such, to achieve sustainable teacher education, teachers of tomorrow need great depth of knowledge of contemporary technology of e-learning. As observed during the Covid-19 pandemic era, e-learning was of great assistance to teaching and learning as it ensured teaching and learning continued in most parts of the world. Despite the wide-based adoption of e-learning all over the world, it seems that teacher education institutions are struggling with the adoption of e-learning. In fact, as the researcher observed, teacher education institutions in Anambra State are yet to integrate e-learning into instructional delivery. As such, e-learning solutions were scarcely provided for teachers during instructional delivery as they were condemned to marker and board and teaching-handouts. In addition to the clamour for e-learning adoption especially in teacher education institutions, the researcher believes that an empirical study of this sort could give teacher education institutions reasons to pursue utmost actualization of e-learning for in teacher education. Against this backdrop, this study intends to investigate philosophy of education and the necessity of e-learning for sustainable teacher education in Anambra State-Nigeria.

Purpose of the Study

The main purpose of the study is to examine the necessity of e-learning for sustainable teacher education in the light of Philosophy of Education in Anambra State-Nigeria. Specifically, the study sought to determine;

1. the e-learning devices necessary for sustainable teacher education in Anambra State.
2. the reasons that call for the necessity of e-learning for sustainable teacher education in Anambra State.
3. the benefits to be derived from e-learning for sustainable teacher education in Anambra State.

Research Questions

The following research questions guided the study;

1. what are the e-learning devices necessary for sustainable teacher education in Anambra State?
2. what are the reasons that call for the necessity of e-learning for sustainable teacher education in Anambra State?
3. what are the benefits to be derived from e-learning for sustainable teacher education in Anambra State?

Method

The descriptive survey research design was adopted for this study. The study was carried out in all government-owned teacher education institutions in Anambra State. There were

four government-owned teacher education institutions in Anambra State as at August 2023. They comprised Faculty of Education Nnamdi Azikiwe University Awka, Faculty of Education Chukwuemeka Odumegwu Ojukwu University Igbariam, Federal College of Education (T) Umunze and Nwafor Orizu College of Education Nsugbe.

The population for this study consisted of all the 258 computer science education lecturers in the four government-owned teacher education institutions in Anambra State. No sampling was done owing to the manageable size of the population. Data were collected with researchers-developed questionnaire titled "Necessity of e-learning for sustainable teacher education questionnaire (NESTE)". The questionnaire consisted of two parts: part one was the introductory part and contained statements that sought information on the respondents' status. Part two comprised 20 items that were organized under 3 sections namely the e-learning devices necessary for sustainable teacher education, the reasons that call for necessity of e-learning for sustainable teacher education and the benefits to be derived from e-learning for sustainable teacher education. The respondents were requested to indicate their opinions on a four-point rating scale of Strongly Agree (4), Agree (3), Disagree (2) and Strongly Disagree (1). Two experts in the Department of Educational Foundations, Nnamdi Azikiwe University Awka validated the instrument.

The reliability of the instrument was ascertained using Cronbach alpha statistics which yielded the reliability coefficient of0.82, 0.84 and 0.86 for the three sections of the instrument and a mean reliability coefficient of 0.84was realized. The three research questions were answered using mean ratings. Mean was used for data analysis with the decision rule that any mean score from 2.50 and above was taken as agree while mean score below 2.50 was taken as disagree.

Results

Research Question One: What are the e-learning devices necessary for sustainable teacher education in Anambra State?

Table 1: Mean Rating of Respondents on the e-learning devices necessary for sustainable teacher education in Anambra State (N=258)

S/N	Items on the e-learning devices necessary for sustainable teacher education	Computer science education lecturers x (mean)	Decision
1	The following are e-learning devices necessary for sustainable teacher		

	education:- (1) Computers	4.00	Strongly Agree
2	Laptops	4.00	Strongly Agree
3	Standby generators	3.80	Strongly Agree
4	Internet facilities	4.00	Strongly Agree
5	CD-ROMS and flash drives	3.26	Agree
6	Computer laboratories	3.90	Strongly Agree
7	Projectors	3.20	Agree
8	Slides	3.10	Agree
9	Audio-visual devices	3.24	Agree
10	Smart phones	4.00	Strongly Agree

Results in Table 1 showed that all the items have mean ratings above the cut-off point of 2.50. The table also showed that items 1, 2, 3, 4, 6, 10 were responded positively in strong agreement. Items5,7, 8 and 9 were responded positively in agreement. Hence, they agreed that items from 1 to 10 are the e-learning devices necessary for sustainable teacher education. It can be interpreted that the e-learning devices necessary for sustainable teacher education in Anambra State are computers, laptops, standby generators, internet facilities, CD ROMs and flash drives, computer laboratories, projectors, slides, audio-visual devices and smart phones.

Research Question Two: What are the reasons that call for the necessity of e-learning for sustainable teacher education in Anambra State?

Table 2: Mean rating of respondents on the reasons that call for the necessity of e-learning for sustainable teacher education in Anambra State (N=258)

S/N	**Items on the reasons that call for the necessity of e-learning for sustainable teacher education**	**Computer science education lecturers** **x (mean)**	**Decision**
11	E-learning provides opportunities for students to operate in an information age.	3.90	Strongly Agree

12	It helps in effective teaching and learning by providing avenue for sharing ideas and information.	3.20	Agree
13	It provides learning environments that help students to build problem-solving skills.	3.80	Strongly Agree
14	It makes teaching and learning less burdensome and result-oriented.	3.28	Agree
15	E-learning helps teachers to enhance their pedagogical skills.	3.20	Agree

Results in Table 2 revealed that all the items have mean ratings above the cut-off point of 2.50. The table also revealed that the respondents strongly agreed with the statements in items 11 and 13 while they agreed with the statements in items 12, 14 and 15. Hence, they agreed that statements in items 11, 12, 13, 14 and 15 are the reasons that call for the necessity of e-learning for sustainable teacher education n Anambra State.

Research Question Three: What are the benefits to be derived from e-learning for sustainable teacher education in Anambra State?

Table 3: Mean rating of respondents on the benefits to be derived from e-learning for sustainable teacher education in Anambra State (N=258)

S/N	**Items on the benefits to be derived from e-learning for sustainable teacher education**	**Computer science education lecturers x (mean)**	**Decision**
16	E-learning makes students better prepared to fit into the current technological change in the society and the work place.	4.00	Strongly Agree
17	It provides creative and individualized options for students to express their understandings.	3.80	Strongly Agree
18	It impacts students learning with higher order of thinking.	3.90	Strongly Agree
19	It allows students to select learning materials that meet their level of		

	knowledge.	3.20	Agree
20	E-learning supports curriculum goals of institutions for higher quality education	3.10	Agree

Results from table 3 presented the respondents' views on the benefits to be derived from e-learning for sustainable teacher education in Anambra State. The result showed that respondents' responses of the statements in items 16, 17, 18, 19 and 20 scored above 2.50 of the mean rating. The respondents responded positively in agreement with the statements of items 16, 17, 18, 19 and 20. Hence, all the respondents responded positively in identifying the benefits to be derived from e-learning for sustainable teacher education in Anambra State.

Discussion

According to the responses of research question one, the respondents agreed that the e-learning devices necessary for sustainable teacher education in Anambra State includes computers, laptops, standby generators, internet facilities, CD – ROMs and flash drives, computer laboratories, projectors, slides, audio-visual devices and smart phones. This finding was in agreement with e-learning facilities such as computers, internet tools, multimedia, video tapes, satellite, CD-ROMs, flash drives, telephone, television, storage devices, service providers and browsers discovered by Khan (2001) and Adeosun (2010). Thus, these e-learning facilities were in line with the e-learning devices necessary for sustainable teacher education in Anambra State.

In research question two, the respondents agreed to the reasons that call for the necessity of e-learning for sustainable teacher education in Anambra State as e-learning provides opportunities for students to operate in an information age, helps in effective teaching and learning by providing avenue for sharing ideas and information, provides learning environments that help students to build problem – solving skills, it makes teaching and learning less burdensome and result – oriented, e-learning helps teachers to enhance their pedagogical skills. This finding agreed with Hedge and Hayward (2004) study which discovered that e-learning offers well designed, learner – centered and interactive learning environment to anyone, anyplace and anytime by utilizing the internet and digital technologies in connection with instructional design principle. In support of the above, Ogbuagu and Eyibe (2016) stated that the necessity of e-learning for teacher education lies in its function of producing a nation's manpower. Thus, e-learning is very necessary for achieving sustainable teacher education not only in Anambra State but in Nigeria at large.

Result findings from research question three revealed that the respondents agreed on the benefits to be derived from e-learning for sustainable teacher education in Anambra State as e-learning makes students better prepared to fit into the current technological changes in the society and the workplace, it provides creative and individualized options for students to express their understandings, it impacts students learning with higher order of thinking, it allows students to select learning materials that meet their level of knowledge, e-learning supports curriculum goals of institutions for higher quality education. This finding was consistent with the study of Moe and Blodget (2000) that reported the benefits of e-learning as opportunities for technological advancement, improved creativity and connection to the internet. Ogbuagu and Eyibe (2016) discovered the benefits of e-learning for sustainable teacher education as means of education that incorporates self-motivation, communication, efficiency and technology. Hence, the necessity of e-learning for sustainable teacher education in Anambra State and Nigeria is certain and obvious.

Conclusion

The findings of the study revealed that computers, laptops, standby generators and internet facilities, are the topmost e-learning devices necessary for sustainable teacher education. It was additionally concluded that making students better prepared to fit into the current technological changes and impacting students' learning with higher order of thinking are the topmost benefit to be derived from e-learning for sustainable teacher education. The necessity of e-learning for sustainable teacher education as identified in this study is certain and obvious.

Recommendations

Based on the findings of the study, the following recommendations were made:

1. The federal and state governments should adopt e-learning in all teacher education institutions through effective policy implementation and provision of required resources.
2. Teacher education institutions should organize regular training through seminars, conferences, workshops, short term and long term on ICT to enable lecturers and students acquire relevant competences in e-learning process.
3. The federal and state governments should ensure constant power supply and internet access in teacher education institutions to facilitate regular use of ICT facilities in e-learning process.

References

Adeosun, O. (2010). Quality basic education development in Nigeria: imperative for use of ICT. *Journal of International Cooperation*, *13* (12), 193 - 211.

Akuegwu, B. A., Ntukidem, P. J., Ntukjidem, E. P. and Jaga G. (2014). Information and communication technology (ICT) facilities utilization for quality instructional service delivery among university lecturers in Nigeria. Lagos: Concept Publications.

Ali, N. S., Hodson-carlton, K. and Ryan, M. (2015). Web-based professional education for advanced practice nursing: A consumer guide for program selection. *The Journal of Continuing Education in Nursing*, *33* (1), 33-38.

Austin (2021). E-learning or classroom learning: which is better? Retrieved from www.ksa.mytutorsource.com

Cavallari, D (2023). What is teacher education? Retrieved from www.wise-geek.com

Eyibe, S. C. (2004). Environmental education and information technology at work in S. C. Eyibe and M. A. Madusolumuo (Eds), *Education and Information Technology at work*. Yola: TEWAN publication.

Hedge and Hayward L. (2004). Redefining roles: E-learning contributing to life-long learning in networked world. Retrieved from www.nation@master.com.

Jamal, N (2022). Meaning, nature and scope of teacher education. Retrieved from https://mmhapu.ac.in

Kapur, R (2018). Teacher education. Retrived from https://researchgate.net

Khan, B. H. (2001). A framework for web based learning, *Educational Technology Publication Review* 1(5), 26-30.

Lukman, D (2021). The importance of teaching practice to teacher education. Retrieved from www.imperialwriters7.com

Marriot, S. I. (2009). Concept of e-learning solutions: Better or worse. Retrieved from http://www.articlegold.com.

Mkpa, M. A. (2004). Education and information technology at work. In S. C. Eyibe and M. A. Madusolomuo (Eds), *Education and Information Technology at work*. Yola: TEWAN Publication.

Moe, M. and Blodget, H. (2000). *The knowledge web: People power-fuel for the new economy*. New York: Merrill Lynch & Co.

Ofojebe, W. N. (2006). The place of teacher education in manpower development in Nigeria. In E. J. Maduewesi and P. E. Eya (Eds). *Perspective in teacher education*. Onitsha: West and Solomon publishers.

Ogbuagu J. O. and Eyibe, S. C. (2016). Challenges of E-learning and Globalization in Higher Education in Nigeria. *Journal of Technical Education and Research Development* 5(1), 45 – 53.

Osuala, E. C. (2009). *Principles and methods of business and computer education*. Enugu: Cheston Agency Ltd.

Stauffer, B (2020). What's the difference between online learning and distance learning? Applied Educational Systems the iCEV Career & Technical education blog at https://www.aeseducation.com

UNESCO (2011). ICT in schools: A handbook for teachers on how ICT can create an open learning environment. Paris: UNESCO.