

ASSESSMENT OF E-LEARNING COMPETENCIES REQUIRED BY BUSINESS EDUCATORS FOR EFFECTIVE TEACHING IN COLLEGES OF EDUCATION IN DELTA STATE

By

OJIANYAEGBU IDOWU

School of Business Education

Federal College of Education (Technical), Asaba

Abstract

The study aimed at assessing the e-learning competencies required by business educators for effective teaching in colleges of education in Delta State. Descriptive survey research design was used for the study because it was considered appropriate for the study. The populations used were the four Colleges of Education in Delta State. Business education lecturers which consist of 119 business educators were the population used. There was no sample. The instrument for the study was structured questionnaire designed by the researcher on the above topic. the questionnaire was developed on a four point rating scale of very much available,/Strongly Agreed (4), Available/Agreed (3), fairly available/Disagreed (2) and not available/strongly disagree (1). The instrument was subjected to face and content validity by two experts, a lecturer in business education department, College of education Agbor and another lecturer in computer education department, Federal College of Education (T), Asaba. Spearman Rank Order was used to ascertain the reliability of the result and it yielded a co-efficient of 0.71. Data for the study were collected with the help of three research assistants from each of the Colleges of Education. Out of 119 copies of the questionnaires administered, 101 copies were completely filled and returned representing 85% return rate. Data collected were analyzed using mean and standard deviation. The findings of the study revealed that e-learning competencies are not available and that there is inadequate e-learning infrastructure for business educators to use. The study recommended among other things that the state and federal government should develop and implement functional software packages for the training and re-training of business educators on the use of new technological applications for Colleges of Education in Delta State.

Keywords: E-learning, Business Education, Competencies, Effective teaching, Colleges of Education.

Introduction

Today's fast-paced world is becoming increasingly characterized by technology-driven communication, which has transformed the world into a

large global connected community with ever-increasing outreach of information and communication technology (ICT). ICT refers to the range of technologies that are applied in the process of collecting, storing, editing, retrieving, and transfer of information in various forms (Olakulehin, 2007). The Federal Ministry of Education, Nigeria (2010) defines ICT as encompassing all equipment and tools (inclusive of traditional technologies of radio, video, and television to the newer technologies of computers, hardware, firm-ware, etc.), as well as the methods, practices, processes, procedures, concepts, and principles that come into play in the conduct of the information and communication activities. The importance of technology in people's lives is unimaginable and it is envisaged that technological literacy will soon become a functional requirement for people's work, social, and even personal lives. For both social and economic reasons students will need computer and communication technology skills to live successfully in a knowledge-based society.

Information and Communication Technology (ICT) brought diverse technologies, new opportunities and challenges for Business Educators and learners in Colleges of Education. In the e-learning environment, teaching and learning happens differently than in the traditional classroom setting, hence some challenges are encountered by those participating. Thus, there is need to identify the challenges encountered in an e-learning environment in order to come up with best practice solutions to ensure success of both the business instructors and the learners. As Rana and Lal (2014) put it, "Understanding issues and challenges in respect of e-learning is of significant importance to the research communities involved in e-learning and will have a significant role in forming future practices". The widespread of E-learning in education is becoming more vocal than expected especially with the recent global pandemic that never gave way for conventional or traditional classroom teaching and learning to take place in the various higher institutions in Nigeria.

Nwagwu and Azil, (2016), see E-Learning as the use of Information and communication (ICT) to enhance and support learning in tertiary education. E-learning involves the use of electronic media to enhance learning including digital collaboration, satellite broadcasting, CD-ROMs, video and audio conferences, mobile technology, interactive TV and web based technologies (Bennink, 2014). However, some universities and tertiary institutions in Nigeria were able to carry on teaching and learning process which shows that they have embraced e-learning as a means to ensure that their academic calendar is

not totally distorted while some colleges of education devised the means of using Information and Communication Technology tools to facilitate teaching and learning during the pandemic, which was not 100% effective. The break out of the COVID -19 pandemic has greatly shown that, the knowledge, competencies and methodology required by business educators in the use of E-learning in teaching and learning is limited, as a result of the limitation many higher institutions were closed down during the COVID -19 period because if e-learning platforms are to be properly utilized to meet up societal demand of both the business instructors, students and the institutions to achieve the predetermined objectives. E-learning environment has to be organized, equipped and managed for teaching and learning to be effective.

Fewer tertiary institutions running business education are only used to the traditional face to face classroom teaching and learning method, both lecturers and students need to be trained first, before stable internet facilities, amongst other facilities needed are installed. The aforementioned factors contributed to the set back of academic activities during the COVID 19 pandemic in Nigeria. E-learning platforms can be effectively integrated into Business Education programme in Nigeria through the adoption of computer equipped classroom, the computer equipment needed includes flash memories, optical discs, interactive electronic boards, video books, personal computers, multimedia projectors. Other multimedia resources used in e-learning includes learning activity packages (LAP), diskettes, power point slides etc. These soft wares may be developed by business educators or exist as ready-made instructional software, (Christian, Onyema and Akiti , 2019).

E-learning technologies are sub-system within Information and Communication Technologies. Inijie, Utoware and Kren-Ikidi(2013) described E-learning as an electronic learning or process which enhances the delivery and administration of learning opportunities and support through computer network and web based technologies to help individual performance and development. It involves the utilization of technologies such as: Webinars/web based learning, Zoom application, What-sap application, Video conferencing, You-tube, Computer based training, flexible learning tool boxes, Smart-board interactive whiteboard. In tertiary institution, E-learning as a modern medium of teaching and learning has not been fully utilized as a result of Challenges such as lack of required competency by Business Educators, poor usage attitude by users, poor maintenance Culture, high cost of equipment, inconsistent power supply in Nigeria especially in the interior localities which

leads to Poor network for browsing and communication. As a result of the above hindrances, many faculties and departments do not include ICT in their programmes, whereby creating a vacuum in the curriculum and students' knowledge (Mohammed, Amel and Kamel, 2016).

There are so many advantages of e-learning to both lecturers and students as ascertained by Smedley (2010), E-learning provides flexibility of time and place of lecture delivery for both lecturers and students according to time table. It provides comprehensive information to its users and eliminate barrier that might hinder participants because it enable students to interact, exchange knowledge and ideas among themselves and their lecturers. Wagner, Hassanein and Head (2008) noted that e-learning makes available extra interaction between students and their lecturers during content delivery, the use of E-learning allow students to learn at their own pace, satisfaction and decreases stress. E-learning infrastructure is one time investment for institutions and stakeholders. It only needs regular up grading and maintenance. The use of E-learning save time, because the lecturers and students have access to information anywhere. It helps in developing knowledge, new theories and practices due to participation of multiple learners and instructors from various places. (Klein, Egoz-matia and Salzbeigin, 2014).

Competence indicates sufficiency of knowledge, attitude and skills that enable someone to act in a wide variety of situations. Competence is a person's ability, power, authority, skill, knowledge, attitude, to do what is needed. Each level of responsibility has its own competency requirements. Competencies focus on personal image, attitudes, habits, behavior, techniques of communication, problem solving, decision making, reliability, honesty, humility, resourcefulness, regularity, and human relations formation (Ohaeguble, 2014) . Competencies refer to higher level characteristics, representing the ability of an individual to perform a job role successfully. These characteristics result in effective action and/or superior performance on job. Okon, (2018) viewed competencies as abilities of power and authority of skills, knowledge, attitudes and facts necessary for accomplishing tasks on the job.

Advancement in technology which has brought about modern method of teaching and learning has also affected the competencies required for instructional delivery in tertiary institutions of learning. There were traditional skills required of business Education lecturers such as lecturers and students face to face traditional classroom seating of students adjacent to their lecturers

and be receiving lectures, but these method and skill are gradually becoming obsolete and being replaced or up graded to higher skills. Higher level competencies are now required of business education lecturers in delivery of their lectures as a result of advancement in technology. The skills are higher in the sense that they are not only necessary for teaching and learning but enable Business Educators to coordinate the numerous academic functions. Such competencies are necessary because E-learning is taking over the traditional classroom teaching and learning. Therefore Business Educators are required to possess higher competencies that will enable them deliver their lectures on-line via E-learning. These competencies were identified by Alvenfors (2010) as adaptive thinking competencies, collaborative competencies, problem solving competencies, decision making, computing competencies etc.

Adaptive thinking is the ability of Business Education lecturers to intelligently adapt his behavior by thinking and coming up with solutions and responses beyond what is rote or rule-based. Collaboration is the process of working as a team with a group of people in order to achieve a goal, problem solving is the process of finding solutions to difficult or complex issues, computing skills is the ability to sit down at a computer and have enough knowledge of how software works to figure out what to do. According to Olga, (2012), Business educators should demonstrate the following competencies:

the effective classroom management, maximizing efficiency, maintaining discipline and morale, promoting teamwork, planning, communicating, focusing on results, evaluating progress, and making constant adjustments. A range of strategies should be employed to promote positive relationships, cooperation, and purposeful learning. Organizing, assigning, and managing time, space and activities should ensure the active and equitable engagement of students in productive tasks.

Effective teaching practices, representing differing viewpoints, theories, “ways of knowing” and methods of inquiry in the teaching of subject matter concepts. Multiple teaching and learning strategies should help engage students in active learning opportunities that promote the development of critical thinking, problem solving, and performance capabilities while helping them assume responsibility for identifying and using learning resources.

Effective assessment, incorporating formal tests; responses to quizzes; evaluation of classroom assignments, student performances and projects, and standardized achievement tests to understand what students have

learned are also important. Assessment strategies should be developed that involve learners in self-assessment activities to help them become aware of their strengths and needs and encourage them to set personal goals for learning

technology skills, knowing when and how to use current educational technology, as well as the most appropriate type and level of technology. For you to effectively assess the e-learning competencies required of business educators, you must be professionally qualified i.e. undergo the educational training for business education.

According to Osuala in Nwalado (2018) there are many interlopers in the field of business education in Nigeria. Anybody who teaches one of the courses in general business studies, skill or non-skill business subject claims to be a business educator. As mentioned earlier, business educator is a person who is knowledgeable in the eight components of courses that make up business education programme. He is a professional teacher of business who is constantly aware of the state of the art in business education. In other words, a business educator is any person who: delivers high-quality business education programmes that are equal to any academic offering in the school system. Is able to identify problems facing learning and teaching in business education subjects and is able to speculate and plays the critical role in making business education viable and visible in the community as well as play the roles of agent of change in business education and find solutions to these problems. Business Educators are available in the Universities and Colleges of Education. Colleges of education are designed to provide skilled manpower for the development of different sectors of Nigerian's economy.

According to Ikwuegbu (2009) the role of colleges of education is based on teaching, research and public Service. In Nigeria there are state owned colleges of education and federal owned colleges of education. State owned Colleges of education are established, owned, controlled and funded by state governments. While federal colleges of Education are established, owned, controlled and funded by the federal government. Some federal and state colleges of Education are located in the rural areas while others are located in the urban centres. It is therefore the intention of the paper that if some skills are gradually becoming obsolete in academics as a result of advancement in technology, e-learning has to take its place in teaching and learning environment to make the paradigm shift conclusive. The paper therefore seeks

to identify these competencies that Business Educators in Colleges of Education in Delta State are expected to acquire.

Statement of the Problem

A modern institution is an institution that carryout her teaching and learning with the most advanced equipment and Systems available. Due to such increasing level of divers information and communication technology, institutions are re-structuring their method of teaching delivery, higher level of competencies, skills are required from business education lecturers to cope with the modern ICT which is referred to as e-learning. The new development in teaching with technology will continue to bring about further changes in learning institutions. Business Educators needs competencies that will enable them perform duties required of them. As a result of lack of e-learning competencies by academic staff, during the COVID -19 pandemic of March to September (2020), almost all the institutions in Nigeria including basic education level both government and private institutions were closed down, teaching and learning stopped because of inadequate skills and facilities. In other words, business educators lack the critical competencies needed in e-learning Okon (2018) opined that a large number of employers cite lack of skills as a major obstacle to hiring personnel. In view of these problem, the paper intends to Assess the E-learning competencies required of Business Educators for effective teaching in Colleges Education in Delta State.

Purpose of the Study

The main purpose of the study is to assess the e-learning competencies required of Business Educators for effective teaching in Colleges of Education in Delta State.

Specifically, the study sought to;

1. find out the e-learning competencies available for business educators in Colleges of Education for effective teaching
2. examine the challenges of using e-learning facilities by business educators in teaching and learning.

Research Questions

The following research questions were raised to guide the study:

1. What is the extent of e-leaning competencies available for business education lecturers for effective teaching in Colleges of Education?

2. What are the challenges faced by business educators in using available e-learning facilities for effective teaching in Colleges of Education?

Methodology

The design that was used for the study is the survey research design. According to Aggarwal (2014), Survey research design is one in which the entire population or representative sample is studied by collecting and analyzing data from a group of respondents through the use of questionnaire. This design was appropriate for the study because, it sought to ascertain the views and opinions of lecturers on the above topic. The population of the study consist of all the Business educators in Colleges of Education in Delta State. There are four Colleges of Education with 119 business education lecturers. The entire population was used, therefore there was no sample. The instrument used for the study was a structured questionnaire designed by the researcher on Assessment of E-learning Competencies Required for effective Teaching by Business Educators in Colleges of Education in Delta State (AECRBEL). The Questionnaire was developed on a four point rating scale of Very much available (4), available (3), fairly available (2) and not available (1). Strongly agreed (4), Agreed (3), Disagreed (2) and Strongly Disagreed (1). The instrument was subjected to face and content Validity by two experts, a lecturer in business education department, College of Education Agbor and another lecturer in Computer Education Department, Federal College of Education (Technical), Asaba. Their corrections and suggestions were used to produce the final copy of the questionnaire. To ascertain the reliability of the instrument, test Re-test Method was used on 10 lecturers from College of Education Nsugbe, Anambra State, after the trail testing of the Instrument, Spearman's Rank Order was used to ascertain the reliability result and it yielded a co-efficient of 0.71 which shows that, the instrument was reliable. Data for the study were collected with the help of three research assistants from each of the Colleges of Education. Out of 119 copies of questionnaires administered, 101 copies were completely filled and returned representing 85% return rate. The data collected were analyzed using mean and standard deviation for answering the research questions. The mean was employed using four point rating scale techniques which were categorized into four response options. Items with mean values of 2.50 and above were considered as agreed/available while items with mean values below 2.50 were considered as disagreed/not available.

Results

Research Question 1: What is the extent of e-learning competencies available for business education lecturers for effective teaching in Colleges of Education?

Table 1: Mean Response of e-learning competencies available for business education lecturers for effective teaching

| S/N | Statement | Mean | S/D | Remarks |
|-----|---|------|------|---------------|
| 1 | Add-ons in browsers are available | 2.41 | 0.91 | Not Available |
| 2 | Chat software for discussion in class are available. | 2.34 | 1.53 | Not Available |
| 3 | Script programming language interpreters are available | 1.80 | 0.68 | Not Available |
| 4 | Streamed media are available | 1.39 | 0.54 | Not Available |
| 5 | Skype or teleconferencing systems are available | 3.63 | 1.73 | Available |
| 6 | Organizing and archiving data and programs are available | 3.01 | 1.74 | Available |
| 7 | Antivirus protection are available | 2.91 | 1.71 | Available |
| 8 | Communication with an application server for downloading and copying files are available | 2.95 | 1.72 | Available |
| 9 | Communication with other users via e-mail, forum, chat are available | 3.27 | 1.81 | Available |
| 10 | Installing and configuring software, e.g. installing a web browser and managing plugins are available | 2.00 | 0.12 | Not Available |
| 11 | Hardware and software are available | 2.97 | 1.72 | Available |
| 12 | Media in the learning process of learners are available | 2.70 | 1.64 | Available |
| 13 | Electronic mails in teaching are available. | 2.02 | 1.42 | Not Available |
| 14 | On-line spreadsheets and data analysis software for sharing and analyzing data are available. | 1.73 | 0.67 | Not Available |
| 15 | Simulation in teaching are available | 1.96 | 1.40 | Not Available |

| | | |
|-------------------|-------------|----------------------|
| | | Available |
| Grand Mean | 2.47 | Not Available |

From table 1, items 1,2,3,4, 10, 13, 14 and 15 have mean response rate which are above the cut-off mark of 2.50, these indicates available. Item 5, 6, 7, 8, 9, 11 and 12 has the mean response rate less than the cut-off mark of 2.50 and this indicates not available. The grand mean of 2.47 which is also below 2.50 of the cut-off mark indicates that e-learning competencies are not available for business education lecturers for effective teaching in Colleges of Education.

Research Question 2: What are the challenges faced by business educators in using available e-learning facilities for effective teaching?

Table 2: Mean Response on the challenges faced by business educators in using available e-learning facilities for effective teaching

| S/N | Statement | Mean | S/D | Remarks |
|-----|--|------|------|-----------|
| 16 | Inadequate e-learning infrastructure e.g. computersoftware and computer accessories. | 3.21 | 1.79 | Agreed |
| 17 | Computer literacy among lecturers and students is still low. | 1.71 | 0.51 | Disagreed |
| 18 | Unwillingness to change to the new method of computer literacy among lectures and students is still low. | 1.59 | 0.59 | Disagreed |
| 19 | Corruption of the data entry operators. | 3.30 | 1.82 | Agreed |
| 20 | Inability to design didactic rules in e-learning. | 3.25 | 1.80 | Agreed |
| 21 | Lack of motivation in the part of the Business educators. | 1.89 | 1.37 | Disagreed |
| 22 | The high cost of personal computer, laptop, software, internet and their technical support. | 3.05 | 1.75 | Agreed |
| 23 | Lack of internet service knowledge on the part of some Business educators. | 3.04 | 1.74 | Agreed |
| 24 | Lack of adequate training of lecturers on how to integrate e-learning gadgets. | 1.29 | 0.46 | Disagreed |
| 25 | Expensive cost of maintenance and repair of e-learning gadgets. | 2.88 | 1.70 | Agreed |

Assessment of E-Learning Competencies Required by Business Educators for Effective Teaching in Colleges of Education in Delta State

| | | | | |
|-------------------|--|-------------|------|---------------|
| 26 | Lack of technical support from e-learningtechnologists | 3.11 | 1.76 | Agreed |
| 27 | Irregular electricity supply hampering theutilization of e-learning. | 2.32 | 1.52 | Disagreed |
| 28 | Lack of time administrative support in providinge-learning Materials. | 3.28 | 1.81 | Agreed |
| 29 | Lack of update computer packages readilyavailable for application. | 1.63 | 0.62 | Disagreed |
| 30 | Lack of time to spend in utilizing e-learning gadgetsdue to teaching workload. | 3.25 | 1.80 | Agreed |
| Grand Mean | | 2.59 | | Agreed |

From table 2 above, items 16, 19, 20, 22, 23, 25, 26, 28 and30scored above the mean response rate of 2.50, these indicates that the respondents agreed to the item whileitem 17, 18, 21, 24, 27 and 29 scored below 2.50 of the mean response rate this means that the respondents disagreed to the items. The grand mean of 2.59 which is above 2.50 of the cut-off mark indicates that majority of the above items are challenges faced by business educators in using available e-learning facilities for effective teaching.

Discussion of Findings

Result in research question one indicates that e-learning competencies are not available for business education lecturers for effective teaching in Colleges of Education. It was observed that add-ons in browsers, chat software for discussion in class, script programming language interpreters, streamed media, installing and configuring software, e.g. installing a web browser and managing plugins, interaction through electronic mails in teaching, on-line spreadsheets and data analysis software for sharing and analyzing data and simulation competencies are not availablefor business education lecturers for effective teaching. On the other hand, skype or teleconferencing systems, organizing and archiving data and programs, antivirus protection, communication with an application server for downloading and copying files, communication with other users via e-mail, forum, chat, hardware and software and media in the learning process of learners’ competencies are available for business education lecturers for effective teaching. The findings is in-line with Nwagwu and Azil (2016) who identified availability of internet,

faster internet connectivity/improved bandwidth as some of the ways that can make e-learning more effective.

Result in research question two shows that inadequate e-learning infrastructure e.g. computer software and computer accessories, corruption of the data entry operators, inability to design didactic rules in e-learning, high cost of personal computer, laptop, software, internet and their technical support, lack of internet service knowledge on the part of some business educators, high cost of maintenance and repair of e-learning gadgets, lack of time administrative support in providing e-learning materials and lack of time to spend in utilizing e-learning gadgets due to teaching workload have been identified as challenges faced by business educators in using available e-learning facilities for effective teaching. On the other hand, Computer literacy among lecturers and students is still low, Lack of motivation on the part of the Business educators, Lack of adequate training of lecturers on how to integrate e-learning gadgets, Lack of technical support from e-learning technologists, Irregular electricity supply hampering the utilization of e-learning and Lack of update computer packages readily available for application are not challenges faced by business educators in using available e-learning facilities for effective teaching. In support of this findings, Mohammed, Amel and Kamel (2016) reported that lack of e-learning policy at Colleges of Education and government support have been identified as critical problem for successful implementation of e-learning.

Conclusion

Information and communication technology has huge potentials in improving the provision and acquisition of education and learning. It is with tools like e-learning that this potential can be realized. The many benefits of e-learning should allow colleges of education to meet its mission of producing quality graduates. The high level competencies of e-learning awareness by business education academic staff means that they have accepted it as a mode of delivering instruction to their students. Thus, if e-learning application is to be effectively utilized in Colleges of Education by lecturers and students, the challenges identified above have to be addressed. e-learning cannot be applied in every case, because there are times where direct interaction with learners in more traditional ways is preferred to e-learning, because there are some practical courses that need instructional teaching. Hence, Colleges of

Education have to move with the trends and incorporate e-learning for effective teaching and learning.

Recommendations

Based on the findings of the study, the following recommendations are made.

- The state and federal government should develop and implement functional software packages for the training and re-training of business education staff on the use of new technological applications for Colleges of Education in Delta State.
- There should be availability of well trained and experienced maintenance technicians to service the e-learning appliances that are available in Colleges of Education for effective teaching.
- Stakeholders and philanthropists in Nigeria should make adequate effort towards supporting tertiary institutions by providing them with some of the e-learning facilities required for qualitative teaching and learning.

References

- Aggarwal, Y.P. (2014). Descriptive method. *International Journal of Transformation in Business Management*, 1(60), 3-4
- Alvenfor, A. (2010). Introduction to integration on the induction programmes importance for the integration of new employees. Retrieved from <https://urn.kb.se/resolve?un=urn:nbn:se;dive-428>
- Bennink, R. (2014). Implementing e-learning from the corporate perspective. Retrieved September 2nd 2018 from www.Au/edition05/.../beininink.pdf
- Christian, A.O., Onyema, L.N., & Akiti, N. (2019). E-learning platforms in business education for skill acquisition. *Nigeria Journal of business education (NIGJBED)*, 6(2), 12-33.
- Communication Ventures Ltd.

Federal Ministry of Education (2010). *National Policy on Information and Communication Technologies (ICT) in Education*. Abuja: Federal Ministry of Education.

https://acet.ecs.baylor.edu/journal/ACETJournal_Vol11/Ikamba%20_%20ICT_Competencies.pdf

Ikwuegbu, P.N. (2009). Nigeria instructional methods and facilities for teaching entrepreneurship education in schools for suitable development. *Journal of Educational Administration and Planning*, 9(2), 34-55.

Inijie, G. O., Utoware, J. D. A., & Kren-Ikidi, P.C. (2013). Utilization of e-learning technologies in business education instructional delivery in colleges of education in Delta State of Nigeria. *International Journal of Education and Research*, 1(10), 1-14.

Mohammed, O. Mohammed, Y.C., Amel & Kamel, E.E (2016). Studying and comparing <http://www.researchgate.net/publication/312113861>

Nwagwu, L., & Azil, N. (2016). Status of technologies in business education department of tertiary institutions in Ebonyi state for effective integration of electronic learning. *British Journal of Education*, 4(4), 49-59

Nwalado, S.H., (2018). Method of Teaching Business Education Subject. Enugu Chembus

Ohaegbule, N.M. (2014). *The modern office practitioner*. Abakaliki, Ugub's printing and publishing company.

Okon, E.E. (2018). Collaborative business education and economic diversification paths to sustainable development in Nigeria. *Journal of Business Education*, 5(2), 367-384.

- Olakunlehin, F.K. (2007). Information and communication technologies in teacher training and professional development in Nigeria. *Turkish online journal of distance education*, 8(1), 133-142
- Olga, N. (2012). The competencies of the modern teacher. In the 10th annual meeting of the Bulgarian comparative education society, Kyustendil, Bulgaria, 148 – 154.
- Rana, H. & Lal, M. (2014). E-learning issues and challenges. *International Journal of computer application*, 97(5).
- Smedley, J.K. (2010). Modeling the impact of knowledge management using technology or insight. 23, 233-250.
- Klein, H., Egoz-matia, T., & Salzbeigin, V.N. (2014). The role of e-learning, the advantages and disadvantages of its adoption in higher education. *International Journal of Education and research*, 2(12), 23-43.
- Wagner, N., Hassanein, K., & Head, M. (2008). Who is responsible for e-learning in higher education? Stake holders analysis. *Education technology and society*, 11(3), 26-36