

READINESS FOR E-LEARNING CURRICULUM IMPLEMENTATION OF BUSINESS SUBJECTS IN SECONDARY SCHOOLS IN PORT HARCOURT LOCAL GOVERNMENT AREA

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ABSTRACT

This study investigated readiness for e-learning curriculum implementation of business subjects in secondary schools in Port Harcourt Local Government Area of Rivers State. The population of the study was 26,663 which comprised teachers and students in secondary schools in Port Harcourt Local Government Area of Rivers State. Taro Yamane formula was used to obtain the sample size of 393 from students' population of 25,757, while 35% of teachers' population of 906 was used to determine the sample size of teachers which was 317. The sample size was therefore summed up to 710 respondents and the simple random technique was used. The descriptive survey research was adopted and questionnaire was used in data collection. The instrument was validated by the researcher's supervisor and two other experts from the department of business education. A reliability coefficient of 0.88 was obtained through test-retest method of estimating reliability using Pearson product moment of correlation (PPMC). A total of 710 copies of the questionnaire were administered by the researcher. 650 copies were retrieved and used for the study. The data collected were analyzed using the mean statistics for the research questions and z-test for test of hypotheses at 0.05 level of significance. The following findings among others were made: the extent of readiness for e-learning was low in the quality of course contents curriculum implementation of business subjects in secondary schools. There was low extent of readiness for e-learning in the environment. There was high extent of readiness for e-learning in teachers and students in Information and Communication Technology. The study concluded that the major determinant of readiness for e-learning curriculum implementation of business subjects was the readiness to use e-learning facilities by teachers and students, the provision of technical support staff and adequate funding. Finally, the study recommended among other things that the Government, Private companies and joint ventures should help in providing and equipping the secondary schools with e-learning facilities, such as private power plants, e-classrooms, e-books and computers.

Keywords: E-Environment, Teacher and Students Readiness, E-Learning Implementation

INTRODUCTION

E-learning bridges the barrier of information and communication in education sector. It allows equality matters amongst students of different race, age, tribe, gender, religion, less privileged, disable students and students of social economic status. It widens the opportunities of education to population of people in the rural areas where secondary schools are poorly sited or where women face social or cultural barrier that limit their access to educational institutions. From the above, it can be seen that e-learning is the

most convenient approach to education in the secondary school system. According to the Ministry of Information and Communication Policy in Nairobi (2016), the policy's key strategies pertaining to Information and Communication Technology (ICT) and education is to encourage the use of Information and Communication Technology (ICT) in schools, colleges, Universities and other educational institutions. However, for institutions to successfully integrate and realize the benefit of technology as a learning aid and teaching tool, some extent of readiness is required. As earlier stated, the use of technology in learning can be referred to as electronic learning (e-learning) which comprises a wide range of applications and process designed to deliver instruction through electronic means. E-learning signals a paradigm shift in education and its profound effect on education cannot be underestimated. E-learning is an effective way of delivering lessons and it should be introduced into our secondary schools. Since technology is vast and is used in all aspect of life, it is important that teachers and students should be equipped with technological skills which would allow them to manage e-learning and its environment. As noted by Broadley (2012) that technological skills are gained and made effective when the gadgets, tools and media are used in the course of teaching and learning. Broadley (2012) noted that e-learning implementation of any course of study in schools requires the availability of physical infrastructure, technical expertise, psychological readiness. He identified teachers' perception and attitude towards e-learning as critical role in the implementation of e-learning.

However, the main objective of e-learning is to transform the approach to curriculum implementation and not to silence the curriculum or erase the content of the curriculum. E-learning is driven by the curriculum and it should not rob the curriculum of its purpose. E-learning ensures effective teaching, learning and curriculum implementation in the computer age. According to Nicholls and Nicholls (1980), and Mkpá (1987), curriculum implementation is the planning and execution of the contents of curriculum in order to bring about certain changes in the behavior of the learners and the assessment of the extent to which the changes take place. The primary purpose of implementation is to achieve the objective of instruction and achieve retention and transfer of knowledge. E-learning is an instructional medium that permits alternative approaches to curriculum implementation in an Information and Communication Technology (ICT) age. There is a great link between the curriculum and Information and Communication Technology, and there are three major areas that technology can influence learning.

With the introduction of e-learning within the 2000 era, the provision of good e-learning environment which comprises of the computer, hardware and software is essential. These facilities may not have been considered in school's budget as other educational programmes and ranked high in the budget. Though information and communication Technology (ICT) may have been included in the secondary school curriculum, the skill development is not guaranteed as these courses are taught theoretically and so, competency in e-learning lacks basis. The problem of computer literacy ranging from the head to the class room teachers cannot be over emphasized. Many of them may not worry themselves to fit into the technological innovation of the shift from traditional class room teaching to e-learning lesson delivery. The target students who may be less privileged to attend class room pedagogy (teaching and learning) within Port Harcourt

environ may also not have computer knowledge for e-learning process. The perceptions of the general public as regards to the quality of certificate which will be issued to graduated students seems negative as this certificates may be regarded as half backed and quack. Innovation calls for e-learning preparedness in instructional delivery in the 21st century, but this has been hampered by quality of course contents, e-learning environment, Technical support, extent of Information and Communication Technology Skills Acquisition and funding of e-learning programme (maintenance and technical support). Considering these short comings, the researcher tend to determine through this study the extent of preparedness of secondary schools in Port Harcourt, the introduction and adoption of e-learning in curriculum implementation of business subjects.

Hypothesis

- 1 There is no significant difference in the mean rating of teachers and students on the extent of provision of e-learning Environment for curriculum implementation of Business Subjects in Secondary Schools.

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Concepts of e-Environment

The word e-environment electronically refers to the use of equipment that is controlled either by transistors, vacuumed tube, chips or integrated circuits. Generally, the source of power is through the electricity.

A power supply is an electrical device that supplies electric power to an electrical load. The primary function of a power supply is to convert electric current from a source to the correct voltage, current, and frequency to power the load. As a result, power supplies are sometimes referred to as electric power converters. Some power supplies are separate standalone pieces of equipment, while others are built into the load appliances that they power. Examples of the latter include power supplies found in desktop computers devices. Other functions that power supplies may perform include limiting the current drawn by the load to safe levels, shutting off the current in the event of an electrical fault, power conditioning to prevent electronic noise or voltage surges on the input from reaching the load, power-factor correction, and storing energy so it can continue to power the load in the event of a temporary interruption in the source power (Robert, Toon and Patrick, 2015).

All power supplies have a power input connection, which receives energy in the form of electric current from a source, and one or more power output connections that deliver current to the load. The source power may come from the electric power grid, such as an electrical outlet, energy storage devices such as batteries or fuel cells, generators or alternators, solar power converters, or another power supply. The input and output are usually hardwired circuit connections, though some power supplies employ wireless energy transfer to power their loads without wired connections. Some power supplies have other types of inputs and outputs as well, for functions such as external monitoring and control. Examples include;

1. Stabilizer

A device that automatically maintains a constant voltage at the inputs of any receiver of electric power (voltage stabilizer) or a constant current in the circuits of such receivers (current regulator). Constant voltage are maintained regardless of variations

in the mains voltage or load. Voltage stabilization can be achieved with ferromagnetic stabilizers. This group, which includes ferroresonant stabilizers, is based on the magnetic saturation of the ferromagnetic cores of transformers and reactors. Electronic stabilizers, which constitute a second group, employ semiconductor devices and, less frequently, electron tubes and affect stabilization by regulating the deviations from a set value. Single-phase and three-phase stabilizers for alternating voltage. These devices have power ratings from tens of volt-amperes (VA) to hundreds of kilovolt amperes (kVA). Stabilizers for direct voltage, predominantly semiconductor devices, are also produced, with power ratings from several watts (W) to several tens of kilowatts (kW). Stabilization of current, which is usually understood to mean direct current, is achieved with the aid of either electron devices having a strongly pronounced nonlinearity of volt-ampere characteristics (barretters, vacuum diodes), or electron-tube amplifiers with negative feedback with respect to current. For constant loads, the current in the amplifier can also be held constant with a voltage stabilizer. (Maizel, 2010).

Concept of Students' Readiness in Information and Communication (ICT) Skill Acquisition

With e-learning, there is a shift from teacher' centeredness to students' centeredness in teaching and learning. The students skills in communication and participation, meta-cognitive skills, access level and skill to work with computer and the internet, cognitive skill and self direction are vital in preparing for e-learning in secondary schools.

Student's attitude in managing their time which of course should be directed more to e-learning rather than other extracurricular activities. Apart from this, there is need for parental motivation through the provision of personal computer (PC) preferably laptop for their word. Students need rich, environment where communication can be done and the promotion of student-to-student interaction method made possible. The reading methods, critical thinking, the ability to argue, discuss, present and interpret new ideas must be efficient and effective for education benefit (abdallah and Azzadine, 2011). But this cannot be attainable in the absent of rich, effective and efficient internet facilities to facilitate online learning. Students should be technically ready and disciplined in the use of e-learning recourses, the use of electronic library, skill on online assignment, tests and examinations. Finally, there must be a positive perception on e-learning for effective adoption and students' readiness for curriculum implementation.

Concept of Technical Support

The teachers and students are always considered when discussing e-learning. But consideration must be placed on the technician who may be seen as less important, but the most relevant when the need arise in the system for curriculum implementation as asserted by Allah and Qamar, (2010) that "Every e-learning system establishes a basic infrastructure of computers, networks, communications and technical department filled with Information and Communication Technology (ICT) professionals to consistently maintain and upgrade the infrastructure, train the users and continually provide technical support as at and when required". The technicians should of course be accessible by

teachers, students and administrators and they should be willing and ready to attend to the needs of the stakeholders. This support staff should be fully employed and paid as other staff and should discharge the duties of e-learning for curriculum implementation as it encompasses.

Review of Empirical Studies

Many people have attempted to study the topic "readiness for e-learning in schools". This work seeks support from these researchers to enhance and boost its authenticity.

In a study conducted by Flammed and Favizs (2017) on teachers readiness to implement digital curriculum in Kuwaiti schools, the purpose of the study was to investigate how teachers perceive their own readiness to implement digital curriculum in public schools. A mixed research was used in this study. Five hundred and thirty two teachers were sampled in an online survey to determine the extent of their readiness. A structured interview with a sub-participant of twenty one(21) respondents were used to explore the factors that affect their readiness. the mean statistics ranged from 2.88 – 3.98. This indicates moderate and high extent of readiness. Teachers indicated a moderate extent of readiness in half of the items (6 out of 12), and the mean statistics of the other half of the items were at the high extent of teachers' readiness. None of the items was at the low extent of readiness. The highest mean statistics was for the item "I can use technology to support my teaching methods", while the lowest was for the item "I believe that high quality of learning experience can occur without interacting with students face-to-face. The study demonstrated that Kuwait teachers were not highly ready to implement the digital curriculum and some issues should be considered to ensure the digital curriculum is effectively implemented. However, it was found in this work that teachers are moderately ready for the implementation of the digital curriculum in both components of readiness; (technical and pedagogical). Teachers identified some factors that hinder their readiness. These factors are related to time constraints, knowledge and skills, infrastructure and technical support. The study however, is in consonance to this work which will discuss teachers' e-learning preparedness as teachers deficiency in e-learning skill is observed. The study also will align to this work in the aspect of lack of e-learning infrastructure which in this work is identified as e-learning environment. Another factor which Flamed and Favizs (2017) looked at which this work will discuss is "technical support".

Mulwa and Kyalo (2013) conducted an empirical study on the influence of principals', teachers' and students' attitude on readiness to adopt e-learning in secondary school in Kitui District, Kenya, the study was conducted in the field of Information and Communication Technology (ICT) use in secondary schools, although according to the study, teachers and students have enjoyed adequate access to an assortment of Information and Communication Technology (ICT) such as computers, laptops, projectors, printers, e-blackboards, mobile phones for use in integration of teaching and learning in schools. A cross-sectional survey research design was adopted for the study. A sample of 66 principals, 66 teachers and 347 students, were involved in the study. The multiphase sampling procedure was adopted for this study. Data were collected using questionnaires and an observation schedule. The resultant information was analyzed by employing the quantitative approach which involved descriptive and inferential statistical procedures. In

correlating principals' attitude and readiness to adopt e-learning, the study revealed that, the principals' belief that learning materials can be easily transported through laptop computers and other storage devices like flash disks and Compact Disc ROMs, that e-Learning will avail information that is not easily available in text books, and the availability of relevant skills in handling e-Learning. On the other hand, there was a negative correlation between the belief that e-Learning will avail information that is not easily available in text books, and the availability of sufficient electronic learning equipment. It can therefore be observed that Principals' positive attitude towards e-Learning had a positive influence on the readiness to adopt e-Learning while, principals' negative attitude was found to have negative influence on readiness to adopt e-Learning in secondary school.

The findings of Mulwa and Kyalo (2013) indicate that there is negative attitude towards e-learning education which has affected the readiness to adopt e-learning in the school system. Student's perception in ineffective infrastructure, especially the inefficiency of the internet also affected the student's readiness. From this study, this work will investigate teacher's readiness in terms of e-learning knowledge and skills that have already been acquired rather than their perception. This study will also investigate the availability of effective internet service Provider (ISP) available in the schools and the entire environment which Mulwa and Kyalo (2013) referred to as infrastructure.

Gordon, Fredrick and Benjamin (2013) conducted a study on "readiness for e-learning in public secondary schools in Kenya". The study adopted a descriptive survey design to establish and determine the extent of readiness to implement e-learning in secondary schools. The study involved principals, teachers and students as the key e-learning adopters. The target population consisted ten public secondary schools in Rachuonyo Districts which received Information and Communication Technology (ICT) infrastructure funding from the government. A census was done on principals strata while a multi-staged random sampling using PPS (Proportionate to Population Size) was applied to students and teachers. Questionnaires were printed and issued to 196 students, 107 teachers and 10 principals from which 170 students, 72 teachers and 10 principals completed and returned the questionnaires which were used in the study. The study tested respondents on the following fundamental computer operations in an e-learning environment: printing documents, surfing the internet, saving documents, sending and receiving email, restarting a computer, beginning a new document and switching off a computer. The general level of experience in handling these basic computer operations was analyzed and it was evident that teachers have expected extent of readiness to perform most of the basic computer operations required to start e-learning implementation in secondary schools. Such as; adequate skills to use the internet resources, manage documents within a computer system, communicate by e-mail and manage computer system. It was observed that opening a file attached to an email and switching a computer on are the only operations which most teachers were able to perform which is an indication of 'ready to go'. Therefore, teachers have necessary technical skills required for e-learning adoption but a few improvements are essential in equipping them with Information and Communication Technology (ICT) skills for successful e-learning implementation.

Time wastage and frustrations while using computers are indicators of incompetency and illiteracy which were observed as barriers to e-learning implementation in schools. Majority of the surveyed teachers do not consider themselves to be very competent with computers and think otherwise. General observation from the study demonstrate that the teachers are uncertain of their competency. The study showed that there is lack of training availability to learn technology. Students need experience and some extent of competency in Information and Communication Technology (ICT) systems for effective use of Information and Communication Technology (ICT) in learning. Low computer literacy level among students is barrier to implementation of e-learning. Though, in the study, students perceived that the use of computer for lesson delivery can be interesting. Teachers perceived the usefulness of computers in learning, training and seminars which indicates that teachers and students are ready to adopt e-learning in schools. Principals indicated their positive response in the readiness to adopt e-learning in their schools. The work of Gordon, Fredrick and Benjamin (2013) will synchronize with this work as they also investigated teachers and students readiness to adopt e-learning in lesson delivery in secondary schools. Though, perception of teachers and students will not be investigated.

METHODOLOGY

The descriptive survey design method was used because, the population of the study was fairly large by its natural settings, and it enabled the researcher to collect original data that described the population of the study. The population of this study comprised teachers and students in Government Secondary Schools in Port Harcourt Local Government Area in Rivers State, Nigeria. The total enrolment of students in secondary schools in Port Harcourt Local Government Area in 2015/2016 session was 25,757; teaching staff 906, the population therefore is 26,663. The sample size of this study was seven hindered and ten (710) generated from the use of Taro Yamane's formula from Students' population and 35% of teachers' population respectively.

The instrument titled "Readiness for E-learning Curriculum Implementation of Business Subjects (ELRECIBSUB)", was to collect relevant information and data for the study. The questionnaire was structured in a way that it minimized bias. Mean and Standard Deviation were used to answer the research questions; a mean statistics of 2.50 and above was accepted and considered high extent while a mean statistics below 2.50 was rejected and considered low extent. The Z-test was used to test the hypotheses at 0.05 level of significant. The hypothesis was accepted if the Z-calculated was less than the Z-tabulated, otherwise, the hypothesis was rejected.

RESULTS

Ho₁: There is no significant difference in the mean rating of teachers and students on the extent of readiness in the Environment and curriculum implementation of Business Subjects in Secondary Schools

Z-Test analysis of responses on the extent of readiness in the Environment and curriculum implementation of Business Subjects in Secondary Schools.

Items	N	Mean	Standard	Df	z-	z-	Decision
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			Deviation	cal	tab	
Teachers	266	2.35	1.04	648	0.4	1.96 Accepted
Students	384	2.39	1.23			

Source: Survey Data, 2018

The data presented in Table 1 reveal that z-calculated value of 0.4 is less than z-tabulated value of 1.96 at 0.05 level of significance. Therefore the null hypothesis was accepted. It can then be stated that there is no significant difference in the mean rating of teachers and students on the extent of readiness in the Environment and curriculum implementation of Business Subjects in Secondary Schools

CONCLUSION

Based on the analysis of data and discussion of findings, the study concluded that the preparedness of secondary schools in Port Harcourt Local Government Area towards the use of e-learning technology in delivering instruction in business subjects to students is a major determinant of the extent and speed at which the use of e-learning technology in delivering instruction in business subjects to students can be achieved. Also, instructional innovations such as the use of internet, educational software, and multimedia should not be undermined, the study also concluded that business subject teachers as well as the students embrace the use of educational software as e-learning technology in delivering instruction in business subjects to students. Finally, the determinant of readiness is built in the teachers, students and the environment.

RECOMMENDATIONS

Considering the importance of e-learning technology in delivering instruction in business subjects to students, the following recommendations were made:

1. Curriculum planners should embrace innovation and as such build in e-learning programmes in the Business Subject Curriculum.
2. There should be the provision of good environment such as private power plants, e-classrooms, e-books etc for e-learning for curriculum implementation of Business Subjects.
3. Government should employ professionals who are proficient in e-learning to manage the e-environment and assist the teachers and the students where necessary.

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