

# CULTURAL FACTORS, PEDAGOGICAL CHALLENGES AND E-LEARNING IN THE UNIVERSITY OF IBADAN, NIGERIA

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## **Abstract**

*Universities are beginning to engage Open and Distance Learning (ODL) mode to mitigate the persistent problem of access to tertiary education in Nigeria and Africa in general. E-learning, a feature of ODL, enables knowledge delivery to learners through computers, intranet, internet, and so on with the benefit of improved academic performance among others. However, the successes of e-learning (perceived usefulness, ease of use, and effective use of learning management system) seem to be at a diminishing rate as the cultural factors (Individualism versus Collectivism; living life styles, education system, place of residence, gender, ethnicity, religious belief, sexual orientation, aesthetics, language and communication), and pedagogical challenges (cumbersomeness of obtaining copyright permission, lack of relevant skills, lack of online class design knowledge, lack of technological infrastructure, and so on) appear to hinder the benefits of e-learning. Previous literature has focused on the benefits of e-learning for education at the detriment of highlighting the significant challenges to e-learning success. This paper, therefore, investigates the relationship between the aforementioned variables. Input-Output Model, Technology Acceptance Model and Systems theory provided the framework, while the descriptive survey design was adopted for the study. Multi-stage sampling procedure was adopted. The study population comprised about 9,000 learners in six disciplines during the 2016/17 academic session and a sample of 877 respondents was drawn from learners and facilitators across the six disciplines using simple random sampling technique. Cronbach Alpha reliability coefficient of 0.78 was obtained from the test of the web-based survey used for collecting data. Descriptive statistics was used for analysis of research questions while Pearson Product Moment Correlation and t-test were used for the hypotheses. The study found a*

*mismatch between the preferred platform facilitators used for teaching and that of learners; high e-learning success and relationship between cultural factors, e-pedagogical challenges and e-learning success. The study recommends the equalisation of preferred teaching/learning platforms.*

## **Introduction**

The increasing prominence of open and distance learning in Nigeria and Africa has led to a paradigm shift from the conventional tertiary education (where it is assumed that at the age of 25 or thereabout, people would have finished education) to life-long learning (where irrespective of age, people could still obtain tertiary education through e-learning). E-learning involves the deployment of Information and Communication Technology tools, internet, digital learning materials and internet-based environment as platform for learning and teaching. According to Rosenberg (2005), E-learning is learning that takes place partially or entirely over the Internet, making information or knowledge available to users always by discounting time restrictions or geographic proximity. Therefore, there are opportunities for anyone, anytime, and anywhere that is capable of reliably producing successful learning outcomes. By implication, e-learning benefits of enhancing education through the integration of curriculum and instruction cannot be overemphasised. However, literature suggests there is no guarantee of improved instructional objective achievement as a result of persuasive usage of Internet technology by learners but on the deployment of effective instructional strategies to maximise students' potentials (Etherington, 2008). Also, research reveals that cultural factors and e-pedagogy challenges could be some of the critical problems hindering e-learning success.

The two factors that instructional designers and lecturers should consider in the design and delivery of e-learning are cultural factors and e-pedagogical challenges. Firstly, the impact of culture on the experiences of students should be taken into consideration because of its benefits of motivating and engaging students in the process of learning; and the need for instructional designers to consider cultural biases in the design of instructions for students use (Sobodic, Balaban and Tomaselvic, 2017). Nigeria, a developing country, has cultures that are intertwined with its ethnic groups. Nigeria has 521 estimated and catalogued languages that include 510 living languages, 2 second languages without native speakers and 9 extinct languages. The languages are resident in over 250 ethnic groups and 900 dialects including Hausa and Fulani 29%, Yoruba 21%, Igbo (Ibo) 18%, Ijaw 10%, Kanuri 4%, Ibibio 3.5%, Tiv 2.5%, and so on

(Commisceo-global.com, 2019). Further, the Nigeria people practice Christianity, Islam, traditional African religions and other way of life such as Judaism. As a culturally diverse country with learners from different *ethnic/nation*, Nigeria has keyed into the ODL strategy of enabling communities of learners from different part of the country to get education. However, there are regions in Nigeria that are categorized ‘educationally backward’. Therefore, what and how learners’ learn and their ability to assimilate may be a function of their different cultural background. In other words, for e-learning designs to be effective, elements of the learners’ cognitive processes, communication, social behaviour, and their interaction with learning technologies (such as computers) should be considered (May, 2015). By implication, learners whose second language is the e-learning’s lingua franca could experience certain level of hindrance for instance. Secondly, the inability to synergise instructional methods, subject matter, and other contextual factors with technology could mar effective online teaching and learning as technology-mediated interaction are dependent on these. Based on experiences of over 15 years’ of distance learning education and training, Vrasidas (2004) constructively critiqued LMS and suggested guidelines for future developments of e-learning systems. While noting the dearth of online teachers, the study listed, among others, lack of functional technological infrastructure, skills, knowledge, support, and training as pedagogical challenges that could mitigate effective online teaching. The study states the major criticism of commercial LMS as replicating the sterile traditional Face-to-Face instruction and not being able to support constructivist learning strategies; challenging facilitators to leverage on the pedagogically sound existing tools to deliver their roles and tasks.

Research perspectives on E-learning success include dropout rates, cultural adaptation, e-learning strategies and performed meta-studies, specific platform use, social environment and collaboration in course completion, technological and financial characteristics, and students’ prior experience on e-learning systems use and success. However, few of these earlier e-learning systems’ success studies have been jointly related to cultural factors and pedagogical challenges, especially in the University of Ibadan, Nigeria. Therefore, it is imperative to carry out this study.

To guide the study, the purpose of the research moulded the following research questions and hypotheses:

***Research Questions:***

- i. What is the level of e-learning success in University of Ibadan, Nigeria?
- ii. What is the preferred e-learning platform among Facilitators and Learners in the University of Ibadan, Nigeria?
- iii. What are the predominant cultural factors that influence e-learning success at University of Ibadan, Nigeria?
- iv. What are the major e-pedagogical challenges that influence e-learning success at University of Ibadan, Nigeria?

***Hypotheses:***

- Ho<sub>1</sub>: There is no significant relationship between cultural factors and e-learning success in University of Ibadan, Nigeria
- Ho<sub>2</sub>: There is no significant relationship between e-pedagogical challenges and e-learning success in University of Ibadan, Nigeria
- Ho<sub>3</sub>: There is no significant difference in e-learning success among facilitators and learners at University of Ibadan, Nigeria.
- Ho<sub>4</sub>: There is no significant difference in e-learning success among males and females at University of Ibadan, Nigeria.

**Literature Review**

The review will begin with literature on ODL in the University of Ibadan, situate e-learning, express the interrelationships between cultural factors, pedagogical challenges and e-learning success, and conclude with a theoretical framework.

*University of Ibadan Distance Learning Centre (UIDLC)*

UIDLC uses blended learning to deliver ODL by combining synchronous (where classes take place in a classroom in real-time through teleconferencing or chat room) and asynchronous (where learners access educational materials at their convenient time anywhere) modes, in addition to face-to-face interactive session (where students and facilitators physically meet to resolve issues relating to learning. The face-to-face interactive session is for a period of two weeks and not compulsory for learners. The UIDLC drives the degree and non-degree

programmes including approved postgraduate courses on non-conventional or non-regular mode – the UI model. Platforms used for the delivery of ODL include; UIDLC website; a UIDLC customised Tablet (to enable students carry out administrative and academic task such as payment of fees, registration of courses, access of preloaded course materials, complete continuous assessments, receive online academic support from facilitators through Google Classroom, etc.); continuous assessment platform, online administrative support, online academic support, e-library, UI Diamond Radio, social media platforms, and telephone contacts (Okunade, 2016).

The University of Ibadan started engaging in correspondence education as Extramural Studies in the Department of Adult Education in the pre Nigeria-independence era. The proposal for the addition of undergraduate courses was approved to begin during the 1971/1972 academic session but the approval had to be represented to the university in 1976. The traditional conservatism that the university is noted for made the programme not commence until 1988. Mechanism was immediately put in place to ensure quality in students' enrolment and content of instruction; emphasizing that the curricular, content of study and teachers of external students was same for the internal students. Though it was resident in the Department of Adult Education, other faculties were instructed to key into the programme. The department metamorphosed from External Degree Programme to External Studies Programme, and to Centre for External Studies in 1992/1993 academic session with faculties of Arts, Sciences and Agriculture participating. At inception, more than 1000 students were admitted as against the proposed 250 students. A Governing Board chaired by the Deputy Vice Chancellor (Academic) was inaugurated. In the face of daunting challenges, the Centre has remained dominant, among dual-mode universities, by tradition and quality of ODL offering (Omoloewa, 2018).

The strength of Ibadan model, parity of esteem, has not been compromised since inception because the admission criteria, curriculum, course-content, examinations, facilitation, and so on for external and internal students are similar. The Distance Learning Centre is the administrative platform while the departments run the academic component. The construction of an ultra-modern computer-based-test facility of 1500-capacity has eased admission and examination processes. From the numerous admission applications, almost 7,000 students were admitted into

six programmes in 2013/14 academic session. The UIDLC Learning Management System (LMS) platform, which has drastically reduced the face-to-face interaction to 2 weeks per semester, encompasses online course registration, online assignment, online academic support, e-library, online course material, online project supervision, online hangout with facilitators, and so on. UIDLC supports students' study with social media networks like Facebook, Google+, Twitter, and so on. UIDLC related programmes (issues and lectures) are broadcast on air via the university's Diamond Radio. UIDLC in partnership with Google (a world class IT organisation) use Google apps (especially Google Classroom) to deliver world class e-learning experience to students. It earned the Centre the honour of being used as a unique case study at the Education Summit of African Ministers of Education in Mauritius and Google VC-CIO Education Summit in Accra, Ghana; and to be recognised as one of the three institutions in Africa to have introduced new approaches to learning using Google for Education. The results of Nigeria University Commission revalidation exercises for ODL led to its consideration as a flagship to be emulated by other aspiring institutions in Nigeria. In addition to the already six disciplines offering ODL, three additional Departments (Sociology, Computer Science and Nursing) in University of Ibadan will commence ODL mode this academic session. The long term admission target is to enrol 100,000 prospective candidates per session. UIDLC has graduated 17 first class students with several students pursuing and obtaining postgraduate programme and degrees up to PhD level, locally and internationally. Indeed, University of Ibadan certifies products worthy in character and learning (Adewole, 2015).

### *E-Learning*

A review of Jarvis's learning society in Olaniran (2016) identified four useful dimensions of learning society as futuristic, planned, reflexive, and market. Futuristic dimension uses technology and computers to provide equal education opportunity for all individuals. Planned dimension is where government and institutions initiate policy/legislation so as to offer education that prepare employees for increasing national and/or global market competitiveness, competencies, widening participation, and lifelong learning. Reflexive dimension focuses on learning new ideas that are capable of altering culture for progress as the society changes from traditional to knowledge-based occupation and use of new technologies and procedures. The final or market dimension subscribes to commoditizing or packaging learning to foster

customer satisfaction thereby making learning a fun process that encourage people to learn. E-learning fits the goals of reflexive and market approaches as expressed in online and open universities' concept of helping people meet the changing demands of modern organization and the flexibility needed in learning and knowledge acquisition without having to be present in traditional classrooms. E-learning enables learners take control of their learning through interaction with desired communication media such as reading books, watching television, listening to radio, and talking to people (facilitators/teachers) who are considered experts on a given subject. E-learning success can be validated when learners' satisfaction has a positive effect on the individual benefits, the use of e-learning systems has a positive impact on students' individual impacts, and students' individual impacts positively influence organizational impacts (Aparicio, Bacao, & Oliveira, 2016).

### *Cultural Factors and E-learning Success*

Research has shown that cultural factors could influence learning to a great extent; for it is only when e-learning eliminates cultural differences, by adapting the cultural context in which it takes place, is e-learning effective. Olaniran (2016) explored issues relating to e-learning in the global workplaces and educational contexts highlighting cultural challenges as central factors mitigating e-learning success. The study stated that there are cross-cultural differences that hinder and can derail the goals of e-learning in global workplaces and expressed the need to consider cultural issues in e-learning if e-learning is to be successful. It established that learners and students at large bring their cultures, values, beliefs and norms into a given learning environment especially e-learning; stating that the collectivistic learners exhibit learning styles that are more group based and relationally oriented. The study further stated that e-learning technologies are designed from and with the goals of supporting individualistic cultural learning styles such as individual freedom and identity with emphasis on task goals than relational goals. In conclusion, the study asserted that different learners' cultural backgrounds affect participation, motivation, satisfaction, and overall performance in e-learning environments.

Cultural influence on learning environment is considered so strong that nations integrate their cultural heritage in curricula to retain traditional functions as required by cultural and social aspects of education. It can also be used to replace existing cultures. Analysing residential

schools attended by aboriginal children in Canada, Bates (2016) stated that culture was used to influence learning environments by undermining or deliberately destroying aboriginal cultures and replacing them with a religious-influenced Western culture. Therefore there is the need to structure e-learning to accommodate culture and its implication on e-learning objectives.

Hameed, Shaik and Hammed (2012) study on effect of cultural factors on students of Pakistan stated that most e-learning systems do not consider cultural diversity of learners, so that learners face many problems during their study. The study incorporated e-learning cultural factors highlighted by Bentley et.al. to find learner's level and consequently proposed and developed an e-learning system prototype that caters for cultural differences of learners. Findings revealed that medium of instruction affect student learning, course contents affect learners, and level of human-computer interaction/exposure affect learners. The need to develop e-learning systems that would cater to cultural differences of learners has been explored in recent studies. Chukwuere, Mavetera, and Mnkandla (2018) acknowledge that Africans are beginning to take advantage of e-learning as a channel for advancing educational advancement and career achievement, and the e-learning developer's challenges of incorporating and managing cultural differences, expectations and perceptions. Therefore, their study investigated the perception of students on the development of a customised culture-oriented e-learning system in their home language. Using quantitative research method among 728 students of North-West University, South Africa, the study found that some students preferred English language as a medium of learning while others preferred their home language. The study noted that the challenges of learners range from lack of engagement to the inflexible e-learning system leading to the discovery of factors that facilitate culture-oriented e-learning system.

Cultural characteristics of individualism and collectivism are used to categorise groups in e-learning; where learners with individualism cultural background direct their behaviour to the attainment of individual goals and students inclined to collectivism culture allow social relationship to prevail over learning tasks (Aparicio, Bacao, & Oliveira, 2016). In other words, students with low values in the individualism/collectivism measure indicate individualism while those with high values indicate collectivism. Studies have not verified whether students' cultural



characteristics, such as individualism versus collectivism (individualism/collectivism), play a determinant role in the perceived e-learning success.

### *Pedagogical Challenges and E-Learning Success*

Traditional education strategy whereby teachers and learners 'Copy, Cram and Reproduce' mitigates education for sustainable development. Such developments can be effected through the combination of technology and e-pedagogy. Many e-learning devices and software are developed for purposes other than education but they are nonetheless adapted for education. Therefore, for e-learning to be successful, pedagogical and effective instructional design challenges should be considered. In e-pedagogy, facilitators combine subject mastery with appropriate learning activities, progression, assessment, quality assurance, grading system, and student support system technologically to achieve learning objectives/outcome (Bjorke, 2011).

The popularity of e-learning technology all around the world has seemingly exposed the challenges being faced by academics. Islam, Beer and Slack (2015) stated some of the challenges to include: inability of facilitators to understand learners' study styles and culture, lack of pedagogical e-learning strategies, lack of relevant technology, lack of technical training that enable facilitators to function effectively, and time management challenges. The study concluded by alerting that these challenges are intertwined and understanding them is vital to successful e-learning outcome.

Enbuska, Rimppi, Hietanen, Ruokonen, Tuisku, and Ruismäki, (2018) investigated possibilities and challenges of e-learning environments in student teachers' piano courses; e-learning environments in comparison to face-to-face or contact lessons; and students' perception of autonomous learning, guided autonomous learning, and group contact lessons. Findings revealed that e-learning environments had good design and content; however, it is important for students to possess some musical skills in order to fully benefit from these environments. To improve piano playing skills and knowledge through independent learning, students should know how to use e-learning platforms and blended learning. Hence, there is need to rethink the accessibility and provision of online study materials in music.

Etherington (2008) stated that e-learning success is being overhyped. While supporting and extending Ross's support for traditional (face-to-face) practices of pedagogy at the primary school level, he contends that E-learning pedagogy is highly problematic in a number of areas at the primary school level and accepted its use in higher education or business enterprise. The study rejected the naïve optimism of employing e-learning in all domain of leaning and the proliferation or *fetishisation* of e-pedagogy at the Australian primary school level. The study raised concerns associated with e-pedagogy such as physical isolation—that is, mind and body must be active in the learning process, pseudo community building, the redevelopment of sociability, the privileging of the written word, a lack of teacher expertise in technology, the recreation of knowledge as performance, the technological divide between parents and children, the reformation of education as a product, the links of E-learning to the economy, the creation of cultural imperialism, the lack of credibility on the web, the lack of spontaneity of technological E-learning, the lack of a sense of place and finally the privileging of technological learning over traditional learning. The study concluded that E-learning has little to offer to education, especially at the primary school level.

Wunder (2017) carried out nineteen Skype interviews on the sampled 17 teachers from five different universities and used phenomenological approach to analyse data. The findings revealed different cultures of learners and teachers' conscious experiences relating to adjustment of didactics when teaching culturally diverse learners in virtual classroom. The study, however, concluded that there is a safe environment for learners and teachers' diverse cultural background if teachers are conscious of their own presence, their cultural background and the effect of dominant culture on their behaviour and that of their students.

### *Conceptual and Theoretical Frameworks*

The study used Technology Acceptance Model, Input-Output Model, and Systems Theory to support the concept. The conceptual framework explains that e-learning will be successful if cultural factors and pedagogical challenges are considered in the design of LMS and delivery of e-learning. This is illustrated with the input-output model and supported with the systems theory in Figure 1.

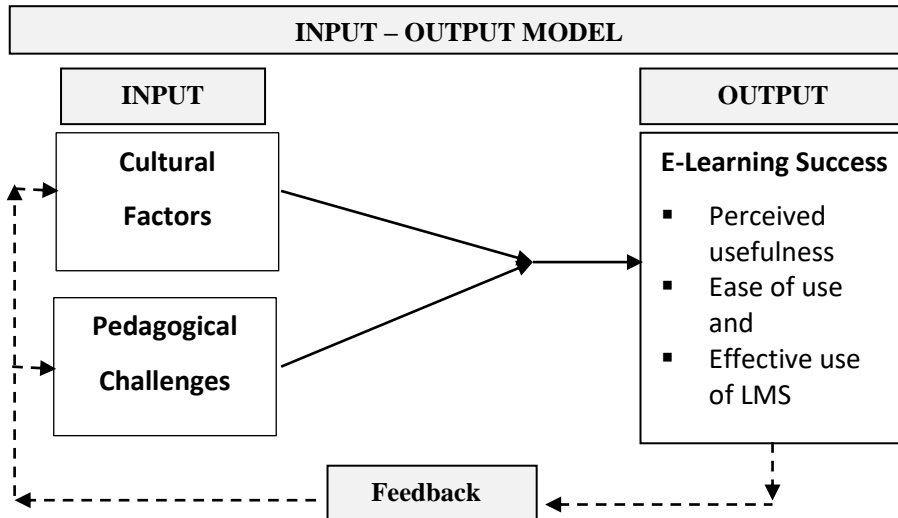


Figure1: Concepts represented in Input-Output Model

Simply, the model states that cultural factors and pedagogical challenges can jointly lead e-learning success and the outcome of e-learning success is feedback to improve the system. A system is a group of independent but interrelated elements whose activities are aimed at achieving the goal of the unified whole.

To measure e-learning success, some studies have assessed the perceived usefulness, ease of use, and effective use of the learning management system. Technology Acceptance Model (TAM), an adaptation of the Theory of Reasoned Action (TRA), models the adoption and use of information technology with a tendency of explaining and predicting the behaviour of users (Borstorff and Lowe, 2007). An illustration of the TAM in Figure 2 shows that the designed features of an LMS or e-learning technology can lead to ‘perceived usefulness’ and ‘perceived ease of use’. Also, ‘perceived ease of use’ can lead to ‘perceived usefulness’. Further, ‘Perceived ease of use’ and ‘perceived usefulness’ jointly leads to ‘Attitude towards using’, and finally, the ‘Actual use of the system’

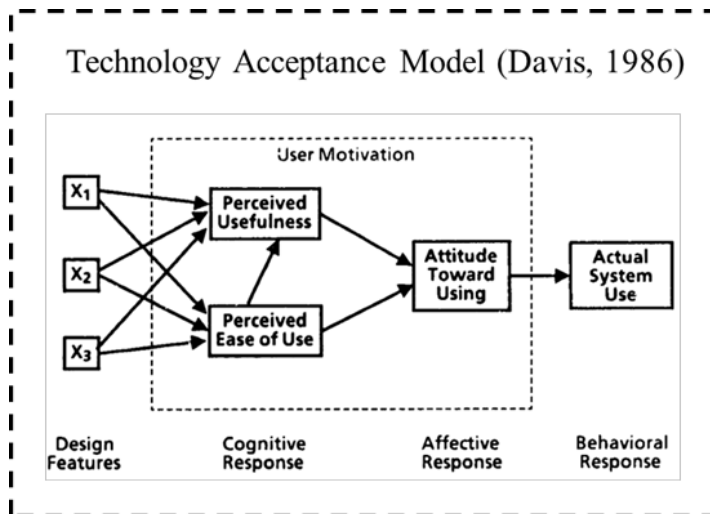


Figure 2- TAM model (Davis, 1986)

## Methodology

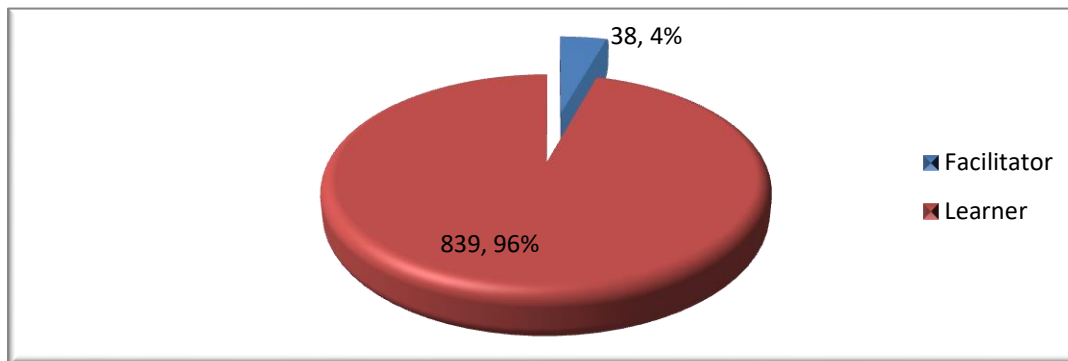
The descriptive survey design of the *ex-post* facto type was adopted for the study. The rationale for adopting it includes the ability of the design to collect data describing existing phenomena for comparison and evaluation purposes. The population of the study comprised all students and facilitators whose faculties and departments run programmes under the ODL mode in the University of Ibadan. There are three faculties and six departments participating ODL mode, over 9,000 students, and about 150 facilitators including e-tutors. A total of 839 learners and 38 facilitators were sampled randomly from the six participating departments. The research instrument was divided into three sections. Section A focused on demographics, Section B on cultural factors and Section C on Pedagogical challenges. Cronbach Alpha coefficient of 0.87 was obtained from the reliability test conducted on the 48-item questionnaire. A link of the web-based survey was sent to all learners' through their DLC dedicated e-mails. The study employed descriptive statistics to analyse demographic data and provide answers to all the research questions by laying emphasis on frequency counts, percentages, mean and standard deviation. The hypotheses were tested with Pearson Product Moment Correlation (PPMC) and T-Test statistical tools

## Results and Discussion

The major findings based on the data collected, collated and analysed via the Statistical Package for Social Science (SPSS) are presented in three sections namely: Section A – Demographic Analysis; Section B – Analysis of Research Questions; and Section C - Test of Hypotheses.

### *Demographic Analysis*

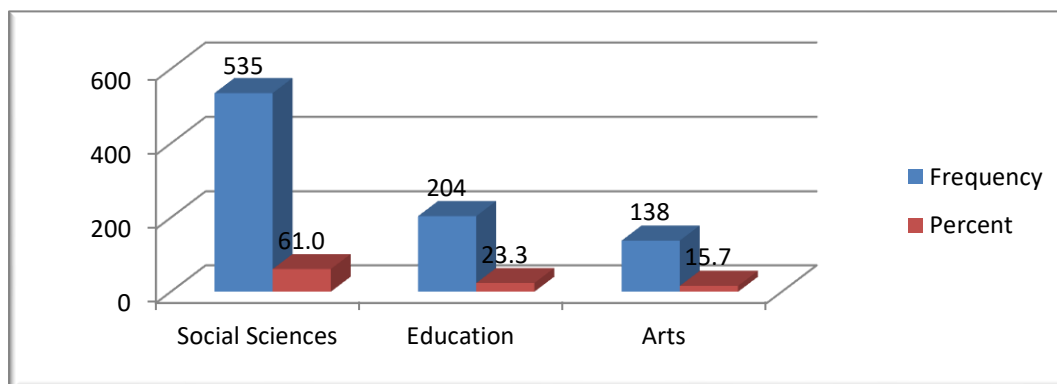
#### i. Respondents Status



*Figure 3: Respondent's Status*

Figure 3 reveals that out of the 877 respondents that participated in the survey, 839 (96%) were learners while the remaining 38 (4%). The result adequately represents the proportion of facilitators to learning in UIDLC

#### ii. Respondent's Faculty



*Figure 4: Respondents' Faculty*

The respondents' breakdown reveal that 535 (61.0%), 204 (23.3%) and 138 (15.7%) were from faculties of Social Sciences, Education, and Arts respectively. The respondents were proportionate to the number of students and facilitators in the faculties, implying adequate representation of the population.

iii. Respondent's Department

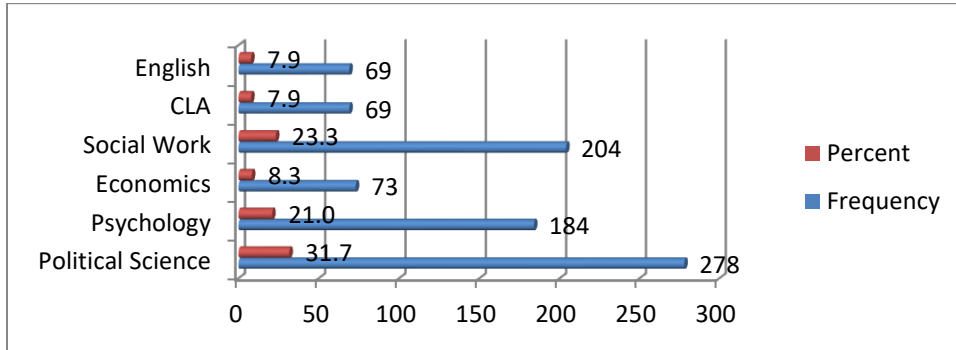


Figure 5: Respondents Departments

Out of the 877 respondents, 278 (31.7%) were from Political Science, 204 (23.3%) from Social Work, 184 (21.0%) from Psychology, 73 (8.3%) from Economics, and 69 (7.9%) each from English and Communication and Language Arts Departments. The number of respondents was in proportion to the number of students and facilitators thus, the sample was an adequate representation of the population.

iv. Respondent's Age

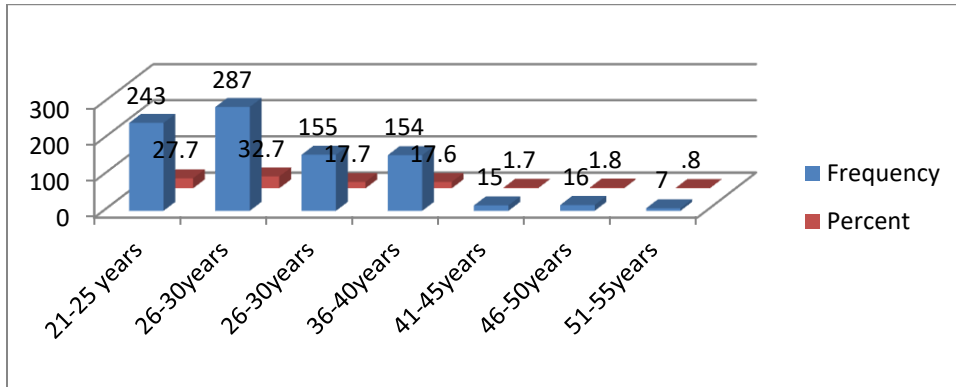


Figure 6: Respondents' Age

Out of the 877 respondents, 287 (32.7%) were between the age range of 26-30 years while only 7 (0.8%) were between 51 and 55 years old. Traditionally, the average age of UI distance learners was about 40 years. Figure 6 results indicate a shift from this tradition. The increasing low access to conventional mode of university education has enabled fresh secondary school leavers, who couldn't gain admission through JAMB, to enrol through the open distance learning mode. The average age is envisaged to reduce further to 25 years in few years as reflected in Figure 6.

iv. Gender

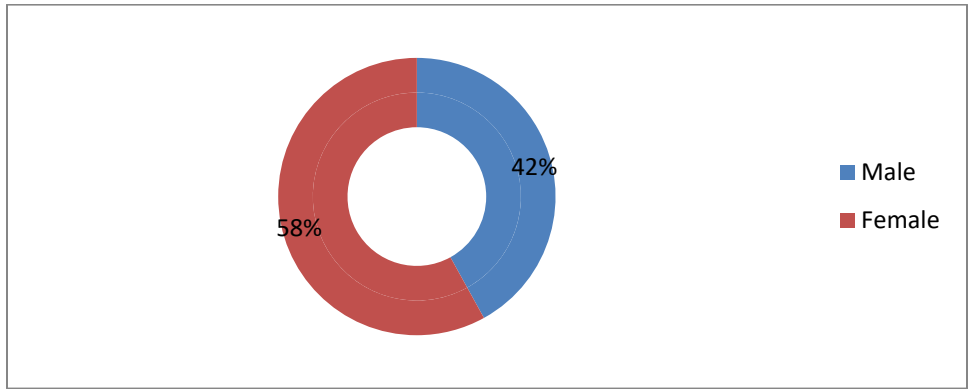


Figure 7: Respondents' Gender

Out of the 877 respondents, 58% were females while the remaining 48% were males. The result imply that there were more female learners than to male learners

vi. Ethnicity

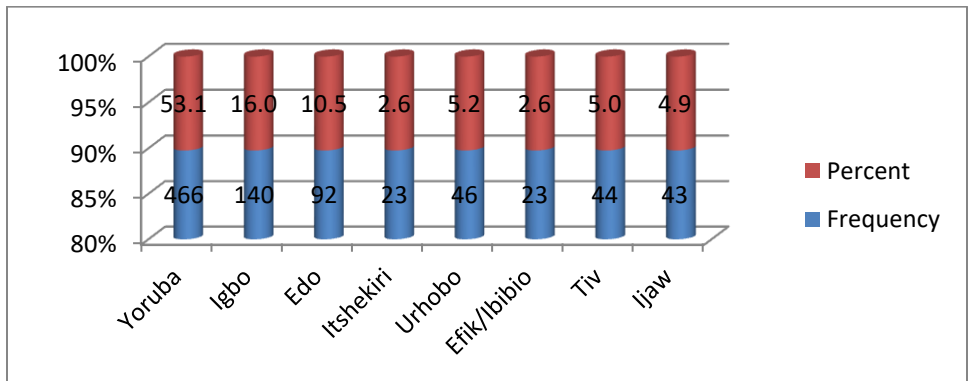


Figure 8: Respondents' Ethnicity

Figure 8 reveal that 466 respondents (i.e. 53.1%) were Yorubas, 140 (16.0%) were Igbos, 92 (10.5%) were Edos, 46 (5.2%) were Urhobos, 44(5.0%) were Tivs, 43(4.9%) were Ijaws, and 23 (2.6%) each were from Itsekiri and Efik/Ibibio ethnic areas. The result implies no missing group in relation to local areas in Oyo State. However, ethnic groups such as Hausa/Fulani, Nupe, Igala, Ebu, Gbagi, etc. found in Northern Nigeria, Kwara, Kogi, and Edo States are missing. This non-reflection of quota system character in University of Ibadan could be as a result of the price of ODL education.

*Section B - Resolution of Research Questions*

The research questions are answered below:

RQi. What is the level of e-learning success in University of Ibadan, Nigeria?

Table 1: E-Learning Success

Description	Frequency	Percent
Disagree / Low	43	4.9
Agree / High	660	75.3
Strongly Agree / Very High	174	19.8
Total	877	100.0

A total of 834 (95.1%) respondents agreed that e-learning was successful. By implication, the respondents agreed that UIDLC learning system was easy to use, of high technological quality, useful for learning, enabled the accomplishment of tasks more quickly, increased chances of getting knowledge, impacted on learning performance, and satisfactory. Thus, the level of e-learning success was high in the University of Ibadan.

RQii. What is the preferred e-learning platform among Facilitators and Learners in the University of Ibadan, Nigeria?

Table 2: Preferred E-Learning Platform

Description	UIDLC LMS / Google Classroom	Blog	WhatsApp	Facebook	Others	Total	%
Facilitator	19	7	7	4	1	38	4.33
Learner	178	89	308	264	0	839	95.67
Total	197	96	315	268	1	877	100.00
%	22.46	10.95	35.92	30.56	0.11	100.00	

The preferred e-learning platform among facilitators was UIDLC LMS/Google Classroom with 19 out of the 38 facilitators stating so. Further analysis revealed that 197 (22.46%) out of the 877 total chose UIDLC LMS/Google Classroom as preferred platform. Among the students, 308 respondents out of the 839 chose WhatsApp as their preferred platform. Also, it was revealed that 315 out of the 877 respondents stated their preference for WhatsApp. There was therefore a mismatch on preferred platform for e-learning between facilitators and learners.

Perhaps, WhatsApp is not considered an e-learning platform in learning management system. Clare Madge et. al (2019) described WhatsApp as a learning tool, extensively used



by international distance education students, to shape their learning process. Extant literature reviewed in their study explains gradual integration of WhatsApp into pedagogic delivery as a result of great opportunities available for teaching and learning. University of Ibadan ODL model recognises this and encourages academic facilitators to use WhatsApp to support and enhance learning (Odiase, Deinne, and Omigie; 2018). This has led to organised learning WhatsApp platforms based on courses taught.

RQiii. What are the predominant cultural factors that influence e-learning success at University of Ibadan, Nigeria?

Table 3: Predominant Cultural Factors

Item	N	Minimum	Maximum	Mean	Std. Deviation	Rank
e-learning culture in UIDLC reveals that social behaviour is driven by personal goals	877	1	4	2.68	0.86	10
e-learning culture in UIDLC reveals that social behaviour is driven by collective goals	877	1	4	3.55	0.73	5
the self-interest of learners prevail over the collective interest	877	1	4	3.24	0.81	7
The success of the group is more important than individual success in UIDLC	877	1	4	3.70	0.72	3
Course materials need to be translated into languages, or local vernaculars	877	1	4	3.08	0.67	9
The cultural references made within the program are relevant to learners	877	1	4	3.09	0.90	8
Learning materials are appropriate to the specific cultural context?	877	1	4	3.35	0.90	6
Imagery (for instance, the use of colours) is appropriate, or do certain colours have negative associations)	877	2	4	3.76	0.46	1
People are figured in such a way that learners can 'see themselves' in the representation when using UIDLC e-learning system	877	2	4	3.62	0.61	4
Clothing is appropriately modest, casual, and/or professional	877	2	4	3.72	0.52	2

The ranking of cultural factors that could influence e-learning, from highest to lowest, were imagery (1), clothing (2), the importance of the group (3), ability to figure people as representation of themselves (4), whether social behaviour is driven by collective goals (5) and so on. The least factor was whether social behaviour is driven by personal goals (10).

RQiv. What are the major e-pedagogical challenges that influence e-learning success at University of Ibadan, Nigeria?

Table 4: E-Pedagogical Challenges

Item	N	Minimum	Maximum	Mean	Std. Deviation	Rank
Cumbersomeness of obtaining permission for using e-copies of learning materials reduces the zeal to teach	877	1	4	2.70	.861	8
Facilitators lack skills relevant for e-teaching	877	1	4	2.94	.831	7
Facilitators lack knowledge to design online classes	877	1	4	2.97	.765	5
Lack of technological infrastructure hampers e-teaching	877	1	4	3.03	.844	3
Facilitators do not have the time to teach online	877	1	4	2.98	.755	4
There's lack of incentives for facilitators to teach online	877	1	4	2.96	.754	6
Traditional teaching culture of Face-to-face interaction is preferable to facilitators	877	1	4	2.59	.622	9
There are no appropriate design and development tools for online teaching.	877	1	4	2.49	.640	10
Technology affordances constrain certain interactions by facilitators when teaching	877	1	4	3.24	.865	1
Certain tasks (e.g. advance calculations) cannot be performed easily by facilitators and learners	877	1	4	3.18	.709	2

The ranking of pedagogical challenges that could influence e-learning, from highest to lowest, were the constrains of technological affordances (1), inability to perform advance calculations (2), lack of technological infrastructure (3), inadequate time to teach online (4), lack knowledge to design online classes (5) and so on. The least factor was no appropriate design and development tools for online teaching. (10).

### Section C - Test of Hypotheses

The null hypotheses were tested at 0.05 level of significance and are as follows:

Ho<sub>1</sub>: There is no significant relationship between cultural factors and e-learning success in University of Ibadan, Nigeria

Table 5: Cultural Factors and E-Learning Success Correlation

Description		E-Learning Success
Cultural Factors	Pearson Correlation	.627**
	Sig. (2-tailed)	.000
	N	877

A PPMC bivariate correlation was calculated to find the relationship between cultural factors and e-learning success. The initial hypothesis predicted a linear relationship between the variables data collected from 877 respondents. The scatter diagrams indicate a linear relationship between the variables. Pearson's bivariate correlation coefficient shows a medium positive linear relationship ( $r(875) = 0.627$ ) that is significant ( $p < 0.05$ ). This implies that the more cultural factors are considered in the delivery of e-learning, the more successful e-learning becomes. The finding is in line with May (2015), Aparicio, Bacao, & Oliveira (2016), Olaniran (2016), and Chukwuere, Mavetera, and Mnkandla (2018). Therefore, instructional designers should consider cultural biases when designing instruction for students' use (Sobodic, Balaban and Tomaselvic, 2017).

Ho<sub>2</sub>: There is no significant relationship between e-pedagogical challenges and e-learning success in University of Ibadan, Nigeria

Table 6: Pedagogical Challenges and E-Learning Success Correlation

		E-Learning Success
E-Pedagogical Challenges	Pearson Correlation	.316**
	Sig. (2-tailed)	.000
	N	877

A Pearson correlation coefficient was calculated to find the relationship between pedagogical challenges and e-learning success. The initial hypothesis predicted a linear relationship between the variables data collected from 877 respondents. The scatter diagrams indicate a linear relationship between the variables. Pearson's bivariate correlation coefficient shows a weak positive linear relationship ( $r(875) = 0.316$ ) that is significant ( $p < 0.05$ ). This implies that the more pedagogical challenges are considered in the delivery of e-learning, the more successful e-learning becomes. The finding is in line with Bjorke (2011), Wunder (2017), and Enbuska, Rimppi, Hietanen, Ruokonen, Tuisku, and Ruismäki, (2018).

Ho<sub>3</sub>: There is no significant difference in e-learning success among facilitators and learners at University of Ibadan, Nigeria.

Table 7: E-Learning Success among Facilitators and Learners

Group Statistics										
		Respondents Status	N	Mean	Std. Deviation	Std. Error Mean				
E-Learning Success		Facilitator	38	2.92	.273	.044				
		Learner	839	3.16	.479	.017				
Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
E-Learning Success	Equal variances assumed	14.164	.000	-3.045	875	.002	-.239	.078	-.392	-.085
	Equal variances not assumed			-5.044	47.992	.000	-.239	.047	-.334	-.144

An independent sample t-test was calculated comparing the mean of facilitators to the mean of learners. A significant difference was found [ $t(875) = -3.045; p < 0.05$ ]. The mean of the Learners ( $Mean = 3.16, SD = .479$ ) was significantly different from the mean of Facilitators ( $Mean = 2.92, SD = .273$ ).

Ho<sub>4</sub>: There is no significant difference in e-learning success among males and females at University of Ibadan, Nigeria.

Table 8: E-Learning Success among Males and Females

Group Statistics										
		Gender	N	Mean	Std. Deviation	Std. Error Mean				
E-Learning Success		Male	368	3.13	.478	.025				
		Female	509	3.16	.473	.021				
Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
E-Learning Success	Equal variances assumed	.708	.400	-1.004	875	.315	-.033	.032	-.096	.031
	Equal variances not assumed			-1.003	785.910	.316	-.033	.033	-.097	.031

An independent sample t-test was calculated comparing the mean of males to the mean of females. No significant difference was found [ $t(875) = -1.004; p > 0.05$ ]. The mean of the

Male(*Mean* =3.13, *SD* =.478) was not significantly different from the mean of Female(*Mean* = 3.16, *SD* =.473).

### **Conclusion**

The study adduced cultural factors and e-pedagogical challenges to the seeming low e-learning success. The study found a mismatch between preferred platform facilitators use for teaching and that of learners; high e-learning success and that the more cultural factors and e-pedagogy are considered in the delivery of e-learning, the more successful e-learning becomes. The study therefore concludes that there is relationship between cultural factors, e-pedagogical challenges and e-learning success and recommends the equalisation of preferred teaching/learning platform.

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Title of the Paper: Cultural Factors, Pedagogical Challenges and E-Learning in the University of Ibadan, Nigeria

Sub-theme: Emerging Themes in Higher Education 1  
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