Investigation On Students And Facilitators Self-Efficacy Towards Utilization Of I-Learn Platform For Instruction At National Open University, North-Central, Nigeria

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ABSTRACT
I-learn platform is a domesticated interactive learning management system (LMS) which students and facilitators use in a virtual classroom setting. The competency of students and facilitators in handling this platform is a factor that determines its success. Thus, the study aimed at investigating students and facilitators' self-efficacy towards utilization of the platform at Study Centres of National Open University in North Central Nigeria. Descriptive survey design was adopted. Two research questions were raised to guide the study and two null hypotheses formulated and tested at 0.05 level of significance. The target population were all students and facilitators in the North Central States of Nigeria. A sample size of 450 (360 students and 90 facilitators) were selected using multi-stage sampling techniques. Two research instruments were used for data collection. The instruments were validated by educational technology experts. Cronbach alpha statistics was used to obtain reliability coefficient indices of the two instruments and both was found to be 0.85 each. The data were analyzed using Mean, Standard deviation and ANOVA. Findings revealed that male and female students and facilitators' self-efficacy levels on utilization of the platform were high. Findings also indicated that there was significant difference between male and females' self-efficacy levels on the use of the platform. It was recommended among others that female students and facilitators should have regular training which might be in form of workshops and seminars to refresh their skills on LMSs usage.
Keywords: Students, Facilitators, Self-efficacy, I-Learn, Utilization of I-Learn

INTRODUCTION
Man cannot do without communication and this is because of the important role it plays in their daily lives as well as in the society at large. As an active member of the larger society, man needs to possess efficient communication skills from all points and edges (Raj & Preeti, 2013).
Badmus (2012) observed that this search for effective approach to teaching and learning has actually produced a variety of suggested instructional approaches. The importance of using information and communication technology (ICT) materials to enhance learning cannot be over-emphasized. The role of ICT in modern teaching and learning is rapidly becoming one of the most important and widely discussed issues in contemporary education policy. However, the rapid development in ICT has made its use in learning environment to become a commonplace. The incursion of ICT into education system led to integration of technology into classroom environment. ICT has created ample opportunities for improved

teaching and learning process in such a manner that learners can interact with knowledge medium in an active and constructive ways (Folarin, 2016). Accordingly, feasible application of ICT for instructional delivery in universities worldwide and Nigeria in particular is generally gaining recognition because of great importance and appropriateness it offers. Several ICT tools are making education to become increasingly personalized and universally accessible. Today' s learners are constantly seeking information to address academic problems by taking advantage of digital and network technologies. In this information age, students cannot be considered as passive consumers of information but rather active co-producers of content, knowledge and skills which are largely due to applications of ICT in teaching and learning process, otherwise known as educational technology.

Educational technology is a systematic and organized process of applying modern technology to improve the quality of education. It is a systematic way of conceptualizing the execution and evaluation of the educational process, the learning and teaching and the application of modern education teaching techniques (Aniah & Tukura, 2011).

The concepts of educational technology provide great advantage on modern learning over traditional because feedback between students and teachers is instant and enhanced since learning space extends beyond the four walls of a classroom (Fathema *et al.*, 2015). If properly utilized, it helps students acquire the skills they need to survive in a complex and technology-driven society. Similarly, it changes the way teachers teach by offering educators effective tools of reaching different categories of students and at different time and locations. One important example of these tools is electronic learning system popularly called e-learning.

The core business of teaching and learning in higher education programme and most especially, distance learning is being profoundly affected by integration of ICT. However, learning in the 21st century is becoming more student-centred and oriented towards a lifelong learning through the introduction of e-learning. Accordingly, the application of computer technology in classroom environment continues to play a vital role in enhancing teaching and enriching learning (Falode *et al.*, 2018; Ebru, 2010). In the recent times, e-learning appears to be a noteworthy method of curriculum delivery because it provides learners with educational practices that available anywhere and at any time (Harun & Mustafa, 2016). One of the fundamental features of e-learning is that the limits which were associated with time and space in conventional mode of learning have been minimized. In essence, e-learners should be self-directed and have control over their learning. However, the emergency of e-learning system is an enabler to the discovery of interactive learning management systems (LMSs) in instructional content delivery.

Globally, the focus now seems to be curriculum delivery through an interactive platform that is flexible, faster and more student-centred such as LMSs which are software applications meant for administration, documentation, tracking, reporting, and delivery of educational contents (Falode, *et al.*, 2018; Jorge, *et al.,* 2017).

Accordingly, LMSs are very useful in organizing coursework and assessment, facilitating staff and student interactions and can act as repositories of learning objects (Holmes, 2018). In line with its mandate to provide wider access to quality higher education National Open University of Nigeria takes full advantage of the use of web-based technologies such as i-learn platform to conduct an effective teaching and learning process among her stakeholders.

I-learn platform is a domesticated LMS established by National Open University of Nigeria (NOUN) purposely to enhance and support curriculum delivery at different study centres across the country. It is a web-based platform developed and maintained by NOUN for communication between students and facilitators as well as providing a storage place for all types of information. In addition, the commercialization and globalization of education are probably parts of changes brought about by LMSs. It allows students to access online lectures with features such as virtual classroom, course management, content authoring, assessment, video streaming among others thereby bringing teaching-learning activities to the door-steps of the students. Through these innovative features, students and facilitators can collaborate in real time during the online instructional content delivery by using internet-enabled smartphones and computers.

Moreover, it helps the facilitators to reflect on students' learning outcome as well as meeting the needs of individual students in a virtual environment. The platform served as an agent of mass communication because of its features that provide educational significance to thousands of students at various study centres across the country. The interactive aura of the internet has conferred unparalleled and unprecedented popularity on e-learning and by extension i-learn platform (Holmes, 2018). Although, the traditional (conventional) mode of learning allows students to interact with the instructor, but the opportunities for students to interact with each other and create their personal class space are limited.

This development has encouraged many educational institutions to introduce LMSs to facilitate face-to-face learning process most especially in open and distance learning institutions. NOUN is reputed to have had the largest number of registered students compared to other universities in the country and has taken the lead in distance learning models. As a result, the platform could be of good use in the hands of students and facilitators towards the achievement of instructional objectives at NOUN because of her diversity and spread. The instructional significance of the platform for interactive instructional delivery is enormous. However, when properly utilized teaching becomes more effective, facilitators become more efficient and students' learning outcomes would be greatly improved. However, students and facilitators' self-efficacy levels towards utilization of the platform might determine its adoption and effective usage.

Self-efficacy is situational in nature rather than being viewed as a stable construct. However, self-efficacy can be regarded as an individual's confidence in one's ability to organize and execute a given course of action in order to accomplish a task or solve a problem (Eccles, 2002).

In this context self-efficacy refers to students and facilitators' competency in utilizing i-learn platform for teaching and learning purpose. That is to say, self-efficacy otherwise called personal efficacy is the confidence in one's own ability to achieve intended academic results when using i-learn platform for learning purpose.

Self-efficacy is a key factor that contributes to success (or otherwise) of students in learning environment because it influences the choice learners make and subsequent course of action they take (Pajares, 2002). Consequently, since self-efficacy affects every area of human endeavour, it implies that the belief students and facilitators hold regarding their abilities to utilize the platform for teaching and learning at NOUN will strongly influence their competency to face i-learn challenges as well as choices they make out of it.

Studies have shown that students' self-efficacy level of students on utilization of LMSs was high (Ibrahim, 2017; Eke *et al.,* 2014) and there was no significant difference between male and female students' self-efficacy level on students on utilization of i-learn platform (Percia, 2013; Manuel *et al*., 2010; Adamus *et al*., 2009). However, studies have also revealed that teachers' self-efficacy level on utilization of LMSs was high (Holmes, 2018; Duru & Ozoji, 2011) and there was significant difference between male and female teachers' self-efficacy level (Muries & Masele, 2017; Percia, 2013; Manuel *et al*., 2010)

Despite the benefit of the platform, there is paucity of literature that reveals the success or otherwise of utilization of the platform by students and facilitators of NOUN. Could this be due to low self-efficacy level of students or facilitators towards its utilization? A need to ascertain users' self-efficacy level towards utilization of the platform therefore, arises. Thus, the study was carried out to investigate the students and facilitators' self-efficacy level towards utilization of i-learn platform for instruction at National Open University in the North-Central Nigeria.

Aim and Objectives of the Study

The aim of the study was to investigate the students and facilitators' self-efficacy level towards utilization of i-learn platform for instruction at National Open University of Nigeria in the North-Central Nigeria. Specifically, the study:

1. Investigated the self-efficacy level of students on the usage of i-learn platform for instructional delivery at NOUN study centres in North Central States of Nigeria.
2. Examined the self-efficacy level of facilitators on utilization of i-learn platform for instructional purpose at NOUN study centres in North Central States of Nigeria.

Research Questions
The following research questions guided the study:
1. What is the self-efficacy level of students on utilization of i-learn platform?
2. What is the self-efficacy level of facilitators on utilization of i-learn platform for instructional purpose?

Research Hypotheses
The following null hypotheses were formulated and tested at 0.05 level of significance:

HO₁   There is no significant difference between male and female students' self-efficacy level on the usage of i-learn as instructional platform.

HO₂   There is no significant difference between male and female facilitators' self-efficacy level on utilization of i-learn platform for instructional delivery at NOUN

METHODOLOGY
The research design adopted for this study was a descriptive survey. A descriptive survey is concerned with the collection of data purposely to answer the existing questions with respect to the current situation of subject matter under study. The variables investigated were student and facilitators' self-efficacy level towards utilization of i-learn at National Open University in the North-Central Nigeria and gender was the moderating variable.

The population of the study comprised of all students and facilitators at 23 study centres of National Open University in the North-Central Nigeria. The sample size of the study was 450 respondents which consisted of 360 students (192 male and 168 female) and 90 facilitators (68 male and 22 female). A multi-stage sampling technique was adopted.

Purposive sampling technique was used to select two study centres from each cluster while random sampling technique was used to select students and facilitators. Two researcher-designed questionnaires were used for the study namely: structured Questionnaire on Students' Self-efficacy towards utilization of i-learn (QSS) and structured Questionnaire on Facilitators' Self-efficacy level towards utilization of i-learn (QFS) which were validated by experts in educational technology. Five point Likert scale format options were adopted in which Strongly Disagree (SD) was awarded 1 point, Disagree (D) awarded 2 points, Undecided (U) awarded 3 points, Agree (A) awarded 4 points and Strongly Agree (SA) awarded 5 points. A benchmark of 3.0 was used as acceptable mean agreement for 5-point Likert scale. A reliability coefficient of 0.85 was obtained for each of the instruments using Cronbach alpha statistics. Data collected were analysed using Mean and standard deviation to answer research questions while Analysis of Variance (ANOVA) was used to test the hypotheses at 0.05 alpha level.

RESULTS AND DISCUSSION
Research Question One: *What is the self-efficacy level of students on utilization of i-learn platform?*
Table 1: Mean and Standard Deviation of Students' responses on Self-efficacy level on utilization of I-Learn Platform

S/N	Items	N	$\bar{X}$	SD	Decision
1	Through i-learn platform I can deal effectively with any concept in my field	360	2.96	1.31	Disagree
2	I can manage to solve difficult problems when using i-learn for learning purpose	360	3.06	1.28	Agree
3	When I have challenges in my area of specialization I can find solution through i-learn platform	360	3.27	1.20	Agree
4	Thanks to my resourcefulness, I know how to handle unforeseen learning situation(s) through i-learn platform	360	3.15	1.19	Agree
5	With the help of i-learn I can achieve my academic goals without much stress	360	3.32	1.38	Agree
6	I can come up with a brilliant idea through i-learn whenever I encounter problem with my study	360	3.50	1.23	Agree
7	I can solve most academic problem online if I invest the necessary effort in i-learn platform	360	3.69	1.24	Agree
8	I am good at maintaining contacts with all participants when using i-learn for group study	360	2.98	1.27	Disagree
9	I can get what information I want at my own time and pace when using i-learn for study purpose	360	3.36	1.24	Agree
10	Through i-learn I can access any learning skills that focus on digital-age technology	360	3.56	1.35	Agree
11	I derive joy when using i-learn to expatiate a concept to my group members	360	3.54	1.31	Agree
12	I feel excited whenever a group member understands the point I emphasized on i-learn platform	360	3.67	1.32	Agree
13	I-learn resource is a gate way to my professional and technological preparedness	360	3.65	1.38	Agree
14	I am capable of suggesting right solution to any academic issue raised through i-learn resources	360	3.27	1.25	Agree
15	I have confidence in my ability to excel in through i-learn platform	360	3.47	1.30	Agree
	Grand (Mean and Standard Deviation)		**3.36**	**1.28**	**Agree**

Key: N = total number of students $\bar{X}$= mean   SD = standard deviation Decision mean = 3.0

The data presented in Table 1 shows that a total number of 360 students responded to 15 items each and the respondents agreed with 13 items which their mean scores is above the benchmark of 3.0 and disagreed with items 1 and 8 with mean scores below cut-off point of 3.0. Since, the grand mean scores (3.36) is above the cut-off point of 3.0, all the students agreed to the majority of the items, an indication that students' self-efficacy level towards utilization of i-learn platform is high. The Table also revealed that the standard deviation (SD) of the items ranged from 1.19 to 1.38 which was below 1.28. This is an indication that the respondents are not far from the mean and one another in their responses. This also indicated that the items are valid.

Research Question Two: *What is the self-efficacy level of facilitators on utilization of i-learn platform for instructional purpose?*

Table 2: Mean and Standard Deviation of Facilitators' responses on Self-efficacy level on utilization of I-Learn Platform for Instructional purpose

S/N	Items	N	$\bar{X}$	SD	Decision
1	I have confidence in my abilities to teach effectively through i-learn platform	90	3.29	1.47	Agree
2	I have ability to respond to student's comments and posting feedback instantly	90	3.38	1.31	Agree
3	I focus on my students instead of feeling discouraged whenever they face a difficult task when using i-learn	90	3.11	1.03	Agree
4	Use of i-learn platform enhances my professional development	90	3.47	1.43	Agree
5	I believe I can excel in knowledge impartation through the help of i-learn platform	90	3.19	1.28	Agree
6	I am capable of modelling innovative thinking to my students through i-learn platform -	90	3.29	1.29	Agree
7	I am good at managing a class in which each student is pursuing his/her personalized learning activities	90	3.40	1.07	Agree
8	I am good at accessing professional development opportunities that focus on continuous improvement	90	2.72	0.94	Disagree
9	I enjoy discussing use of i-learn platform with other facilitators in my study centre	90	2.76	1.33	Disagree
10	I engage students in exploring real-world issues using i-learn resources to support teaching	90	3.58	1.36	Agree
11	I am confident of adapting my teaching plans to incorporate digital learning tools	90	3.62	1.56	Agree
12	I find it easy to create learning task that requires students to collaborate with other s	90	3.00	1.41	Agree
13	I am competent to develop personal responsibility for lifelong learning in my students	90	3.14	1.50	Agree
14	I encourage use of ICT in teaching and learning to improve critical thinking abilities of my students	90	3.24	1.09	Agree
15	I am competent in preparing students on how to utilize electronic resources	90	3.32	1.27	Agree
	Grand (Mean and Standard Deviation)		**3.23**	**1.29**	**Agree**

Key: N = total number of facilitators $\bar{x}$= mean   SD = standard deviation Decision mean = 3.0

The data presented in Table 2 shows that the respondents agreed with 13 items which their mean scores is above the benchmark of 3.0 and disagreed with items 8 and 9 with mean scores below cut-off point of 3.0. Since, the grand mean scores (3.23) is above the cut-off point of 3.0, all the facilitators agreed to the

majority of the items, an indication that facilitators have high self-efficacy level on utilization of i-learn platform for instructional purpose.

The Table also revealed that the standard deviation (SD) of the items ranged from 0.94 to 1.56 which was below 1.29. This is an indication that the respondents are not far from the mean and one another in their responses. This also indicated that the items are valid.

Hypothesis One: There is no significant difference between male and female students' self-efficacy level on the usage of i-learn as instructional platform.

Table 3: ANOVA Analysis of Male and Female Students' responses on Self-efficacy level on the usage of I-Learn as Instructional Platform

Gender of Self-efficacy of Students	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	415.151	1	41.257	2.78	0.09
Within Groups	53348.138	358	149.017		
Total	53763.289	359			

The result of the analysis of variance on male and female students' self-efficacy on the usage of i-learn as instructional platform as presented in Table 3 revealed a F (1, 358) = 2.78, p = 0.09.

With this result, the hypothesis was accepted because p-value of 0.09 on the Table was higher than the pre-set level of significance of p > 0.05. It implies there is no significant difference between male and female students' self-efficacy level on the usage of i-learn as instructional platform.

Hypothesis Two: There is no significant difference between male and female facilitators' self-efficacy level on utilization of i-learn platform for instructional delivery at NOUN study centres in the North Central States of Nigeria.

Table 4: ANOVA Analysis of Male and Female Facilitators' responses on Self-efficacy level Towards utilization of I-Learn Platform

Gender of Self-efficacy of Facilitators	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	1181.715	1	1181.715	9.73	0.002
Within Groups	10681.441	88	121.380		
Total	11863.156	89			

The result of the analysis of variance on male and female facilitators' self-efficacy towards utilization of i-learn platform as presented in Table 4 revealed a F (1, 88) = 9.73, p = 0.002. With this result, the hypothesis was rejected because p-value of 0.002 on the table was lesser than the pre-set level of significance of p < 0.05. It implies there is significant difference between male and female facilitators' self-efficacy levels towards utilization of i-learn platform at NOUN study centres in the North Central States of Nigeria.

DISCUSSION OF FINDINGS
Findings of the study revealed that male and female students' self-efficacy levels on utilization of i-learn platform was high at NOUN study centres in the North Central States of Nigeria. However, the study showed that there was no significant difference between male and female students' self-efficacy levels towards utilization of the platform. Both groups generally agreed that they could solve some academic problems and get further clarifications in their area of specialization when using the platform. This is in line with previous findings of the researchers (Ibrahim, 2017; Eke *et al.,* 2014; Percia, 2013; Manuel *et*

al., 2010; Adamus, *et al.,* 2009) who found that self-efficacy affected users' perceived ease of use and attitude towards utilization of LMSs.

Similarly, findings from this study revealed that male and female facilitators' self-efficacy level on utilization of the platform for instructional purpose was high. It was also revealed that there was significant difference between male and female facilitators' self-efficacy level on utilization of the platform. Male facilitators agreed that they responded to learners' comments through the platform by posting the feedback instantly and that they enjoy accessing professional development opportunities that focus on continuous improvement of digital-age teaching skills (LMSs) whereas the female facilitators disagreed with same notion.

The result was consistent with earlier findings of researchers (Holmes, 2018; Muries & Masele, 2017; Percia, 2013; Duru & Ozoji, 2011) whose studies revealed that female teachers did not utilize internet applications in classroom as did by their male counterparts because they lacked required skills to operate the online resources and also that men tend to use online media more than women while the latter could not utilize ICT effectively for instructions due to their lower capacity in computer application. This is in agreement with studies conducted by Manuel *et al*. (2010) and whose earlier findings showed that men and women express varying degrees of anxiety, acceptance and interest in utilization of learning management systems. The implication is that lower competency (self-efficacy level) of teachers in using the platform might impact negatively on students' learning outcomes.

CONCLUSION

I-learn as an interactive instructional delivery platform holds a lot of benefits that could help to improve teaching and learning process if enabling environment is provided at NOUN study centres in North Central Nigeria. However, the study concluded that students and facilitators viewed i-learn to be a useful curriculum delivery platform which supports and enhances collaborative learning among the users.

RECOMMENDATIONS

Based on the findings of this study the researcher made the following recommendations:

1. Students and facilitators should have regular training which might be in form of workshops and seminars so as to refresh their skills on LMSs usage.
2. University management should be keen enough and ready to play much role in ensuring LMSs usage among students and teachers by investing in new and emerging instructional technologies with provision of internet facilities at free or low cost because students were in agreement that cost of data is very high.
3. LMSs supported instructional platforms should be made as a major teaching strategy in open and distance learning institutions as findings of this study indicated its general acceptability by the users.

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