

Evaluation of Undergraduates' Readiness Towards Online Assessment in Tertiary Institutions in Bayelsa State

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Abstract

This study assessed undergraduates' readiness level towards online assessment in State and Federal tertiary institutions in Bayelsa State. A descriptive survey research design was adopted for the study. Three research questions and corresponding research hypotheses were raised to guide the study. Sample of 499 undergraduates drawn from 4 tertiary institutions in Bayelsa State was used in the study. The instrument for data collection was an “*Undergraduates Readiness towards Online Learning Questionnaire (URTOLQ)*”, developed by the researchers and validated by experts. The reliability co-efficient of the instrument was established using Kuder-Richardson 21 formula (KR_{21}) and a value of 0.79 was obtained which was considered appropriate for the study. The research questions were answered using mean and standard deviation, while the null hypotheses were tested using t-test statistics. It was revealed that the undergraduates' readiness level towards online assessment was low and ignorance, lack of equipment, inability to adjust to new ways are some of the causes of low level of readiness.

Keywords: Undergraduates, Readiness level, Online assessment, Tertiary institutions.

INTRODUCTION

The assessment role in teaching-learning process involves judging the relevance and adequacy of an individual's learning and giving it a value according to a set of criteria for which the educational institution takes responsibility. Educational assessment procedures remain the corner-stone for establishing the quality, relevance and effectiveness of the instructional processes in the schools. This is informed by the whole lot of attention and resources committed to this aspect of the educational system (Aminu, 2012). There is the believed that without realistic educational assessment in schools it will be very difficult to obtain necessary information as feedback from classroom instruction.

For a very long time, until the arrival of computers, paper based tests were the only means of assessment available to educators and instructors who jotted down a set of questions on a paper and then distribute these papers to learners, wait for them to complete and submit the test before the instructors can grade the tests, write feedback and prepare reports. It was a time consuming activity until when online assessment systems arrived that the ideas of pen and paper became redundant and slowly gave way to a better, more effective system of assessment (Ojerinde, 2015).

Moreover, JISC (2014) defined Online assessment as the end-to-end electronic assessment process, that ICT (Information Communication Technology) is used for the whole assessment processes from the presentation of questions to the saving of the learners responses. Most of the studies agree that online assessment is an electronic assessment, in which all the assessment procedures from the start to the end of assessment should be carried out electronically. This means that the design, test implementation, recording the response and providing the feedback are all

completed using ICT. Online assessment is an umbrella term that describes any type of assessment that depends on electronic communication (Edo, 2016). It is a generic term covering a wide set of ICT-enhanced applications and processes which includes: technology-driven assessment, e-assessment, computer-based assessment, web-based assessment, virtual classrooms, digital collaboration and networking (Aminu, 2012).

Online assessment in education is vital since a single set of tests or assessments can be attempted on many devices at the same time. The answers can be automatically graded and the responses are scored in auto generated report. The offline test, though a single set of test cannot be taken on two devices simultaneously; the responses are stored in a data base, the grades are assigned manually and the report are prepared much later.

Online assessment has enhanced the measurement of learner outcomes and made it possible for them to obtain immediate and direct feedback Gilbert (2011). It essentially, creates a system to assess students, which take into account the educational goals and help students to develop their skills which will be a useful for the society for long-term Ridgway (2014). Online assessment can have different forms such as, automatic administrative procedures, digitizing paper-based systems and online testing that includes multiple choice tests and assessment of problem solving skills. Edo (2016) indicated that, online assessment includes supporting the assessment by using a computer for example: with web-based assessment tools. However, Reju and Adesina (2018) clarify that E-assessment comprises the end-to-end electronic assessment procedures.

Although, the indispensability of online assessment in the role enhancing educational achievement has been universally acknowledged, but report from tertiary institutions in Nigeria has shown that the extent of its usage is still low (Edo, 2016, Oduval, Ikogi & Umoh, 2020). Many variables had been identified as responsible for underutilization of online assessment, which includes; lack of knowledge of using tools, lack of time to look for tools and lack of computer related skills to operate device, lack of devices in schools and Inability to acquire devices, low readiness level, little or no access to internet, cost of data and ignorance of the existence of tools associated with the use of technology-driven assessment among lecturers.

Online assessment readiness has been defined as how prepared stakeholders or institutions are to implement e-learning (Ezekwe, Onwe & Udu, 2014). It incorporates a number of different aspects and should be assessed before online assessment is introduced (Mac-Ikemenjima, 2005), indicating that it is a characteristic that should be measured prior to the propagation of online assessment. It includes student' capability to adapt to changes in technology, collaborative synchronous e-learning and asynchronous, self-paced learning. It is dependent upon students' discipline and motivation to engage in a self-driven learning experience and respond to instructions that are issued via the Internet (Ezekwe, Onwe & Udu, 2014). Mastery capacities of lecturers to search, select, analyze and evaluate information rather than just technical operation of technological equipment is a major challenge (Edo, 2016). This means that they must be creative and efficient at using digital tools, communicate and collaborate with other people to actually produce, publish and commercialized their researches, materials and information.

Edo (2016) examined the attitude of academic staff towards utilization of e-learning in teaching and learning in universities in Rivers State. A descriptive survey research design was adopted for the study. Three (3) research questions and hypotheses guided the study. A sample of 706 lecturers from the three (3) universities was used in the study. The instrument for data collection was an attitude of an "Attitude of Academic Staff Questionnaire". Research questions were answered using mean and standard deviation, while z-test statistics was used to test the hypotheses. It was revealed that academic staff attitude towards e-learning was poor.

Ezekwe, Onwe & Udu, (2014) investigated the effect of e-learning readiness levels of students. A total of 960 students formed the sample of the study. A descriptive survey design was adopted for the

study. The results revealed that students' readiness level was low and that readiness level does not change with gender.

Dike (2013) examined teachers' attitude towards e-learning in Tanzanian higher learning institutions. Survey research design was adopted for the study. The study involved 258 teachers from 4 higher learning institutions obtained through stratified, simple random sampling. Questionnaires was used for data collection chi-square statistics was used to test hypotheses. It was revealed teachers have positive attitude towards e-learning and computer exposure played a statistically significant contribution to their attitude.

Research efforts concerning online learning and assessment has majorly focused on awareness, extent of usage and challenges associated with its use among lecturers. However, there is scant evidence in the literature on learners' readiness level towards online assessment in Nigeria. Since undergraduates are at the interface between educational policy and the lecturers for whom the policy is intended, hence their readiness level towards online assessment is worth considering in any education development initiative

PURPOSE OF THE STUDY

The main purpose of this study is to determine undergraduates' readiness level towards tertiary institutions in Bayelsa State. Specifically, this study sought to compare the readiness level of;

- i) Female and male undergraduates towards online assessment in State and federal tertiary institutions in Bayelsa State.
- ii) Undergraduates in state and federal online assessment in tertiary institutions in Bayelsa State.

Research Questions

The following research questions were raised to guide the study.

- i) What is the difference in the readiness level of Female and male undergraduates towards online assessment in tertiary institutions in Bayelsa State?
- ii) What is the difference in the readiness level of undergraduates in state and federal online assessment in tertiary institutions in Bayelsa State?

Research Hypotheses

The following null-hypotheses were formulated and tested at 0.05 level of significance

H₀₁: There is no significant difference on the readiness level of female and male undergraduates towards online assessment in tertiary institutions in Bayelsa State.

H₀₂: There is no significant difference on the readiness level of undergraduates in state and federal online assessment in tertiary institutions in Bayelsa State.

METHODOLOGY

This study adopted a descriptive survey research design. Descriptive survey research design, according to Lawrant (2018), is the one in which a group of people or item is studied by collecting analyzing data from only a few individuals or items considered to be representatives of the entire group. This design is appropriate for this study since information will be gathered from a sample of the population (undergraduates from both state and federal tertiary institutions in Bayelsa), who are familiar with the ideas relating to the purpose of study with the aim of generalizing the results for the entire population. The population of the study comprised of all undergraduates in the 2 federal and 7 state tertiary institutions in Bayelsa State. A criterion reference sampling technique was adopted for the study. First tertiary institutions with education faculty were selected which resulted to 2 institutions (1 Federal and 1 state). Secondly, all the 607 year 2 students in the various departments that makes the faculty in the 2 selected school formed the sample of the study. The instrument for data collection was a questionnaire developed by the researchers, tagged; "*Undergraduates Readiness towards Online Learning Questionnaire (URTOLQ)*" It consists of two (2) sections,

namely; Section A and B. Section A measured the demographic variables of the respondents, Section B consist of a 12-item on the READINESS LEVEL on a 4-point Likert scale of Strongly Agree =4, Agree =3, Disagree = 2 and Strongly Disagree = 1. The content and face validity of the instrument was done by two experts from measurement and evaluation. Their corrections and suggestions resulted to the final draft used in the study. The instrument was trial tested using twenty (20) other undergraduates that did not participate in the research but possess the same characteristics of the population of interest. The reliability co-efficient of 0.75 was obtained using Kuder-Richardson 21 formula which was considered appropriate for this study. The researchers personally visited the sampled undergraduates to administer the instruments. The entire 607 copies of questionnaire sent out to the respondents were returned but 499 which represents 82.2% was found useful for the study. The data gathered was analyzed using mean and standard deviation for the research questions and t-test at 0.05 level of significance to test the hypotheses. The decision rule for answering the research questions was arrived at by finding the average of the 4-point scale, thus; $\frac{4+3+2+1}{4} = \frac{10}{4} = 2.50$ thus, any item with mean of 2.50 and above was interpreted a high level, while mean score below were interpreted as Low level.

For the hypotheses, if calculated t-value is greater than the critical t-value, reject null hypotheses. Otherwise accept the null hypotheses.

Results and Analysis

Research Question 1: What is the difference in the readiness level of Female and male undergraduates towards online assessment in tertiary institutions in Bayelsa State?

Table 1: Mean and Standard Deviation of Male and Female Undergraduate Readiness Level

S/N	Items	Male (N = 232)			Female (N =267)		
		\bar{x}	St.D.	Decision	\bar{x}	St.D.	Decision
1.	I have the basic skills to use a computer	3.10	1.13	High	2.85	0.66	High
2.	I can create presentations using PowerPoint, create spreadsheets using Excel and prepare documents using Word for content delivery	2.32	1.02	Low	2.27	0.89	Low
3.	I know how to communicate using email, Skype and send text/audio/video files using cloud computing	2.16	0.86	Low	2.34	0.64	Low
4.	I know how to download and install software	2.23	0.87	Low	2.01	1.25	Low
5.	I have the basic skills to search for information by browsing the internet and receive data	2.40	0.88	Low	2.51	0.77	High
6.	I can troubleshoot most problems associated with using a computer	2.36	0.84	Low	2.12	0.87	Low
7.	I have access to a computer in the school	3.60	1.21	High	3.23	1.12	High
8.	I have access to relevant hardware and printers/scanners/overhead projectors	2.34	0.64	Low	2.45	0.66	Low
9.	I have access to adequate software	2.98	0.79	High	2.76	0.85	High
10.	I have access to high speed internet	2.36	0.82	Low	2.44	0.69	Low
11.	I am interested to upgrade my work performance through e-learning	2.41	1.06	Low	2.47	0.71	Low
12.	The thought of using e-learning technologies motivates me	2.38	0.63	Low	2.36	0.62	Low
Aggregate Values		2.45	0.98	Low	2.31	1.04	Low

Table 1 above shows the mean scores of male and female undergraduates' readiness level on towards online assessment in tertiary institutions in Bayelsa State. The aggregate of 2.45 and 2.31 respectively, show that both male and female undergraduates had a low readiness level on towards online assessment.

Research Question 2: What is the difference in the readiness level of undergraduates in state and federal tertiary institutions towards online assessment in Bayelsa State?

Table 2: Mean and Standard Deviation of Undergraduates in State and Federal Tertiary Institutions

S/N	Items	State (N = 259)			Federal (N = 240)		
		\bar{x}	St.D.	Decision	\bar{x}	St.D.	Decision
1.	I have the basic skills to use a computer	2.65	0.76	High	2.67	0.87	High
2.	I can create presentations using power point, create spreadsheets using excel and prepare documents using word for content delivery	2.32	0.67	Low	2.26	0.63	Low
3.	I know how to communicate using email, skype and send text/audio/video files using cloud computing	2.18	0.59	Low	2.21	0.73	Low
4.	I know how to download and install software	2.31	0.61	Low	2.46	0.81	Low
5.	I have the basic skills to search for information by browsing the internet and receive data	2.22	0.65	Low	2.35	0.61	Low
6.	I can troubleshoot most problems associated with using a computer	2.08	0.79	Low	2.01	0.63	Low
7.	I have access to a computer in the school	2.10	0.52	Low	2.38	0.68	Low
8.	I have access to relevant hardware and printers/scanners/overhead projectors	2.18	0.64	Low	2.29	0.66	Low
9.	I have access to adequate software	2.03	0.77	Low	2.05	0.61	Low
10.	I have access to high speed internet	2.17	0.87	Low	2.50	0.72	High
11.	I am interested to upgrade my work performance through e-learning	2.51	1.12	High	2.63	0.94	High
12.	The thought of using e-learning technologies motivates me	2.39	0.66	Low	2.47	0.71	Low
Aggregate Values		2.31	1.04	Low	2.39	0.86	Low

Table 2 above shows the mean response scores of undergraduates of state and federal tertiary institutions towards online assessment. The aggregate mean values of 2.31 and 2.39 respectively, show that undergraduates from both state and federal tertiary institutions had a low readiness level toward online assessment.

Research Hypotheses

H₀₁: There is no significant difference between the readiness level of female and male undergraduates towards online assessment in tertiary institutions in Bayelsa State.

Table 3: t-test Statistics on the Readiness Level of Male and Female Undergraduates

Categories	N	\bar{x}	St.D.	d _f	P	t _{cal}	t _{crit}	Decision
Male	232	2.45	0.98	497	0.05	0.66	1.96	Don't
Female	267	2.31	1.04					Reject H ₀₁

Source: Fieldwork (2021).

The result of table 3 indicated that the t_{cal} value is 0.66 which is lower than the t_{crit} value, 1.96. This implies that the null hypothesis is not rejected. Therefore, there is no significant difference between the readiness level of female and male undergraduates towards online assessment in tertiary institutions in Bayelsa State.

H₀₂: There is no significant difference on the readiness level of undergraduates in state and federal tertiary institutions towards online assessment in Bayelsa State.

Table 4: t-test Statistics on the Readiness Level of Undergraduates in State and Federal Tertiary Institutions

Categories	N	\bar{x}	St.D.	d_f	p	t_{cal}	t_{crit}	Decision
State	259	2.31	1.04	497	0.05	1.46	1.96	Don't
Federal	240	2.39	0.86					Reject H ₀₂

Source: Fieldwork (2021).

The result of table 4 indicated that the t_{cal} value is 1.46 which is lower than the t_{crit} value, 1.96. This implies that the null hypothesis not rejected. Therefore, there is no significant difference on the readiness level of undergraduates in state and federal tertiary institutions towards online assessment in Bayelsa State.

DISCUSSION OF FINDINGS

Finding from research question I revealed that the readiness level of male and female undergraduates toward online assessment was low. The finding from research hypotheses 1 also revealed that there is no significant difference between the readiness level of female and male undergraduates towards online assessment in tertiary institutions in Bayelsa State.

This finding is in line with that of Edo (2016) who reported that academic staff in the universities has not utilized modern facilities in teaching and learning. In other words, the conservative mode of teaching is preferable by them in Rivers State. Also the finding supports Munif (2017) who reported that indicated that male and female academic staff is of the same opinion on their attitude to the use of e-learning. This implies that the readiness level towards online assessment does not changed with gender.

Finding from research question II revealed that the readiness level of undergraduates in state and federal tertiary institutions towards online assessment is low. The hypothesis further confirms that there is no significant difference on the readiness level of undergraduates in state and federal tertiary institutions towards online assessment in Bayelsa State. This finding corroborates with that of Goode (2010) who reported that attitude towards e-learning is not a function of type of institution.

CONCLUSION

Based on the findings, it is therefore concluded that the readiness of undergraduates of tertiary institutions is low and that gender and type of tertiary have nothing to do with undergraduates' readiness level toward online assessment.

RECOMMENDATIONS

- Lecturers should be trained to adequately utilize online assessment tools.
- Online assessment usage should be made compulsory in teaching and learning so that undergraduates will develop the right attitude towards it.

- Online assessment tools should be provided to enable develop the required mindset to use them readily.

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