AFRICAN JOURNAL OF EDUCATIONAL ARCHIVES
Vol. 9, Issue 1, - April/June, 2024. ISSN p2536-748x, e-2565-7498

Geography Students' Assessment: The Need for Technology Inclusion in Tertiary Institutions in Yobe State, Nigeria

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Abstract
The study examined the need for technology inclusion in the assessment of geography students in tertiary institutions in Yobe State Nigeria. Three objectives were formulated to: assess the status of geography students' assessment in Yobe state tertiary institutions of Nigeria; examine the advantages of integrating technology into geography students' assessment in Yobe state tertiary institutions of Nigeria; and identify the challenges hindering the adoption of technology in geography students' assessment in Yobe state tertiary institutions of Nigeria. Three research questions were formulated in line with the objectives of the study. Descriptive survey design was employed for the study. The population of the study comprises of twenty-eight (28) geography lecturers and one hundred and thirty-nine (139) three hundred level students' of 2023/24 session from Yobe State University, Damaturu and Federal University, Gashua, which make the total of one hundred and sixty-seven (167) as the population figure. The sample size is one hundred and thirty-two (132) lecturers and students of geography. The sample size was determined using sample size table prepared by Research Advisers (2006), simple random sampling was used in the administration of the instrument. The instrument used for the study was questionnaire, titled 'Technology Inclusion for Geography Student's Assessment (TIGSA)'. TIGSA was validated, pilot tested and found reliable at 0.72 reliability coefficient. Descriptive statistics of frequency count and percentages were employed while analyzing the data collected from the subjects. The study found that, the status of Geography students' assessment in Yobe State tertiary institutions of Nigeria is traditional in nature; integrating technology into Geography assessment has advantages of making things easy to all the stakeholders; and erratic power supply, ineffective internet services, and computer scarcity among others are the challenges bedeviling the technology inclusion into geography students' assessment in Yobe state tertiary institutions, Nigeria. The researchers recommended that, there is need for all tertiary institutions to integrate the use of technological resources while assessing their students in order to cope with the 21st century challenges; lecturers should be given an intensive training on online assessment to enable them carry out their duties effectively as the key stakeholders of content delivery and assessment; and power, internet

service, computers among others be adequately provided for effective inclusion of technology into geography students' assessment in Yobe state tertiary institutions, Nigeria.

Key words: Geography Students' Assessment, Need, Technology Inclusion, Tertiary Institutions

Introduction

Globalization and 21st Century challenges forced human beings to integrate technology in their total endeavors. Thus, education as one of the society's institution requires technology inclusion in the areas of policy making, curriculum development, curriculum implementation, curriculum assessment. Therefore, Geography as a course of study or subject being assessed at tertiary and senior secondary school levels has to integrate the use technology while implementing its content and in the process of students' assessment. However, Abayomi, (2018) revealed that, the integration of internet service in tertiary institution is very law, even though some of the internet facilities were made available to almost all the tertiary institutions.

The study went further to review related studies, findings and observations of previous researches for discussions. The review covers the observation pointed by Owolabi, Oyewole and Oke (2013) who stressed that, the corps of teachers who are expected to initiate reforms into the Nigerian education system went through the traditional system without exposure to information and communication technology. Balogun (2018) observed that, the teaching and learning process in the last decades undergone a significant metamorphosis from a purely traditional modeled manual service delivery system to a more dynamic technologically-driven system. According to Emoji (2021) many tertiary institutions are still battling with the traditional technology of print media despite the demand for distance access to information.

In a research conducted by James and Edys (2010) which assessed the Perspectives on the Integration of Technology and Assessment, where the paper gives consideration to strategies for developing balanced, multilevel assessment systems that involve articulating relationships among curriculum-embedded, benchmark, and summative assessments that operate across classroom, district, state, national, and international levels. It discusses the multiple roles for technology in an assessment-based information system in light of the decision support needed from the multiple actors who operate across levels of the education system. The paper concludes with a consideration of the current state of the field as well as the potential for technology to help launch a new era of integrated, learning-centered assessment systems. Conole and Warburton (2005) in their research found that, Computer-supported assessment makes it possible to enrich and make assessment tasks more authentic, for example, incorporating multimedia presentations and to enable better alignment of tests to students' levels of understanding. Freeman and McKenzie (2002) also noted that, computer-mediated learning environments are valuable for assessment purposes as they enable tutors to present milestones for complex tasks with timed release and alerts to monitor student activity and

achievement, take action and support those students who fall behind or are in difficulty. The milestones and records of activity also enable students to monitor and reflect on their own progress and that of their group.

In a study titled 'Assessment of Students' Usage and Availability of Electronic Media Facilities in Colleges of Education: Problems and Prospects' conducted by Badmus (2011) revealed that, respondents concurred that media technology is challenging the boundaries of the educational structures that have traditionally facilitated and supported learning. According to Abu (2014) erratic power supply has seriously endangered internet connectivity among tertiary institutions. It is based on the foregoing that the researchers as lecturers in Geography and Education Departments, Yobe State University, Damaturu, motivated to find out the status of geography students' assessment; the advantages of integrating technology into geography students' assessment; and the challenges hindering the adoption of technology in geography students' assessment in Yobe State tertiary institutions of Nigeria.

Statement of the Problem

Technological tools are considered to be the most important aspect of human life. This however warrants the need to include the technology in all human spheres, students' assessment process inclusive. This may likely yield a positive result considering the level of globalization and the extent of digitalization of the 21st century. Despite the need for technology integration into students' assessment process to cope with the challenges of the current century; it was still reported by Abayomi (2018) that the integration of internet service in tertiary institution is very law, even though some of the internet facilities were made available to almost all the tertiary institutions. On this note, the researchers intended to identify the status of geography students' assessment; the advantages of integrating technology into geography students' assessment; and the challenges hindering the adoption of technology in geography students' assessment in Yobe State tertiary institutions of Nigeria.

Objectives of the Study

The objectives of the study are to:

1. Assess the status of geography students' assessment in Yobe State tertiary institutions of Nigeria;
2. Examine the need of integrating technology into geography students' assessment in Yobe State tertiary institutions of Nigeria;
3. Identify the challenges hindering the adoption of technology in geography students' assessment in Yobe State tertiary institutions of Nigeria.

Research Questions

The following research questions guided the study:

1. What is the status of geography students' assessment in Yobe State tertiary institutions of Nigeria?
2. What is the need of integrating technology into geography students' assessment in Yobe State tertiary institutions of Nigeria?
3. What are the challenges hindering the adoption of technology in geography students' assessment in Yobe State tertiary institutions of Nigeria?

Methodology

Descriptive survey design was employed for the study. The population figure is one hundred and sixty -even (167) consisted of geography lecturers and three hundred level student's of 2023/24 session from Yobe State University, Damaturu and Federal University, Gashua. The sample size is one hundred and thirty-two (132) lecturers and students of geography, this was determined using sample size table (2006) prepared by research advisers. Simple random sampling was the technique used for sampling the respondents, while, proportionate distribution was used while assigning the sample to schools under the study. The instrument used for the study was questionnaire, titled 'Technology Inclusion for Geography Student's Assessment (TIGSA)'. TIGSA was validated, pilot tested and found reliable at 0.72 reliability coefficient. Descriptive statistics of frequency count and percentages were employed while analyzing the data collected from the subjects.

Results

The researchers administered the instrument at the institutions concerned and retrieved a total of one hundred and twenty-four (124) questionnaire out of one hundred and thirty-two (132) questionnaire distributed. Thus eight (8) questionnaire were missing. Hence, presenting a result collated from one hundred and twenty-four (124) respondents.

Research Question 1: What is the status of geography students' assessment in Yobe State tertiary institutions of Nigeria?

Table 1: Frequency and percentage count of status of geography students' assessment in Yobe State tertiary institutions of Nigeria.

S/N	Status of Geography Students' Assessment in Yobe State Tertiary Institutions of Nigeria	Agreed	Disagreed
1	Geography students in Yobe state tertiary institutions are being assessed through computer-based test	65 (52.4%)	59 (47.6%)
2	Geography students in Yobe state tertiary institutions are being assessed through pen and paper test	118 (95.2%)	06 (4.8%)
3	Geography students in Yobe state tertiary institutions are very much familiar with the process of online assessment because of its usability	30 (24.2%)	94 (75.8%)

4	Geography students in Yobe state tertiary institutions are not familiar with the process of online assessment because they always go for pen and paper examination	81 (65.3%)	43 (34.7%)
5	Geography lecturers in Yobe state tertiary institutions always like to assess students through online assessment	39 (31.5%)	85 (68.5%)

The result on Table one showed that, Geography students are being assessed through pen and paper test; they are not much familiar with the process of online assessment because of its usability; and the lecturers like to assess students through online assessment. This means the status or level of Geography students' assessment in Yobe State tertiary institutions of Nigeria is traditional in nature.

Research Question 2: What is the need of integrating technology into geography students' assessment in Yobe State tertiary institutions of Nigeria?

Table 2: Frequency and percentage count of advantages of integrating technology into geography students' assessment in Yobe State tertiary institutions of Nigeria

S/N	**Advantages of Integrating Technology into Geography Students' Assessment in Yobe State Tertiary Institutions of Nigeria**	**Agreed**	**Disagreed**
1	Technology based assessment make things easy for geography students	121 (97.6%)	03 (2.4%)
2	Use of technology while assessing geography students will drastically reduce the rate of examination malpractice	107 (86.3%)	17 (13.7%)
3	Online assessment is capable of making geography students more competent in the use of information and communication technology resources	98 (79.0%)	26 (21.0%)
4	Geography lecturers will find the result compilation very easy when the students' assessment is done online	114 (91.9%)	10 (8.1%)
5	University management will get all geography results ready for Senate Business Committee (SBC) meeting without any unnecessary delay when the students are assessed online	105 (84.7%)	19 (15.3%)

Respondents' views on Table two revealed that, technology based assessment make things easy for geography students; the use of technology while assessing geography students will drastically reduce the rate of examination malpractice; online assessment is capable of making geography students more competent in the use of information and communication technology resources; Geography lecturers will find the result compilation very easy when the students' assessment is done online; and University management will get all geography results ready for

Senate Business Committee (SBC) meeting without any unnecessary delay when the students are assessed online. Thus, integrating technology into Geography assessment has advantages of making things easy to all the stakeholders.

Research Question 3: What are the challenges hindering the adoption of technology in geography students' assessment in Yobe State tertiary institutions of Nigeria?

Table 3: Frequency and percentage count of the challenges hindering the adoption of technology in geography students' assessment in Yobe State tertiary institutions of Nigeria.

S/N	Challenges Hindering the Adoption of Technology in Geography Students' Assessment in Yobe State Tertiary Institutions Of Nigeria	Agreed	Disagreed
1	Inadequate technical knowledge by some of the geography lecturers discourages the integration of technology into geography students' assessment	82 (66.1%)	42 (33.9%)
2	Erratic power supply is one of the challenges bedeviling the integration of technology into geography students' assessment	99 (79.8%)	25 (20.2%)
3	Ineffective internet services affects the use technology for geography students' assessment	107 (86.3%)	17 (13.7%)
4	Computer scarcity is a challenge towards online geography students' assessment	113 (91.1%)	11 (8.9%)
5	Primitive ideology by some of the geography lecturers affects the use of technology for geography students' assessment	56 (45.2%)	68 (54.8%)

The result on table three showed that, the challenges hindering the adoption of technology for geography students' assessment in Yobe state tertiary institutions include: inadequate technical knowledge by some of the geography lecturers; erratic power supply; ineffective internet services; and computer scarcity. Therefore, there are common challenges bedeviling the technology inclusion into geography students' assessment in Yobe state tertiary institutions, Nigeria.

Discussions

Finding number one revealed that, Geography students are being assessed through pen and paper test; they are not much familiar with the process of online assessment because of its usability; and the lecturers like to assess students through online assessment. This means the status or level of Geography students' assessment in Yobe State tertiary institutions of Nigeria is traditional in nature. This finding is in conformity with the result of Abayomi, (2018), who revealed that, the integration of internet service in tertiary institution is very law, even though

some of the internet facilities were made available to almost all the tertiary institutions. It is also in agreement with Owolabi, Oyewole and Oke (2013) who stressed that, the corps of teachers who are expected to initiate reforms into the Nigerian education system went through the traditional system without exposure to information and communication technology.

Result number two showed that, technology based assessment make things easy for geography students; the use of technology while assessing geography students will drastically reduce the rate of examination malpractice; online assessment is capable of making geography students more competent in the use of information and communication technology resources; Geography lecturers will find the result compilation very easy when the students' assessment is done online; and University management will get all geography results ready for Senate Business Committee (SBC) meeting without any unnecessary delay when the students are assessed online. Thus, integrating technology into Geography assessment has advantages of making things easy to all the stakeholders. This result is in line with the result of Conole and Warburton (2005) who found that, computer-supported assessment makes it possible to enrich and make assessment tasks more authentic.

Finding number three revealed that, the challenges hindering the adoption of technology for geography students' assessment in Yobe state tertiary institutions include: inadequate technical knowledge by some of the geography lecturers; erratic power supply; ineffective internet services; and computer scarcity. Therefore, there are common challenges bedeviling the technology inclusion into geography students' assessment in Yobe state tertiary institutions, Nigeria. The result of Abu (2014) concurred with this current finding, where the later disclosed that, erratic power supply has seriously endangered internet connectivity among tertiary institutions.

Conclusion

The researchers concluded that, the status of Geography students' assessment in Yobe State tertiary institutions of Nigeria is traditional in nature; integrating technology into Geography assessment has advantages of making things easy to all the stakeholders; and inadequate technical knowledge by some of the geography lecturers, erratic power supply, ineffective internet services, and computer scarcity are the challenges bedeviling the technology inclusion into geography students' assessment in Yobe state tertiary institutions, Nigeria.

Recommendations

Based on the findings of the study, the researchers recommended as follows:

1. there is need for all tertiary institutions to integrate the use of technological resources while assessing their students in order to cope with the 21st century challenges;
2. lecturers should be given an intensive training on online assessment to enable them carry out their duties effectively as the key stakeholders of content delivery and assessment; and

3. power, internet service, computers among others be adequately provided for effective inclusion of technology into geography students' assessment in Yobe state tertiary institutions, Nigeria.

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