

## **Linkage and Advancement Services for Sustainable Digital Literacy Skills Among Undergraduates in Bayelsa State**

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**ABSTRACT:** *In the contemporary educational landscape, the integration of digital literacy skills stands as a pivotal determinant of academic success and professional preparedness. The study explored how the linkage and advancement services can sustain the acquisition of digital skills among undergraduates in Bayelsa State, Nigeria. A descriptive survey research design was adopted for the study. Two (2) research objectives were formulated to guide the study. The population of the study comprised of all principal officers of the ICT units, Linkage and Advancement units, and undergraduates from the seven tertiary institutions in Bayelsa State. A structured questionnaire was used to collect the quantitative data. Experts in Measurement and Evaluation and the field of Education will validate the instruments for data collection. The data gathered was analyzed using descriptive through Statistical Package for Social Science (SPSS) version 26. Findings revealed that the extent to which linkage and advancement services enhance sustainable digital literacy among undergraduates in Bayelsa State is low. It was recommended that the tertiary institution management ensure that Linkage and Advancement services are harnessed for sustainable improvement of digital literacy among undergraduates in Bayelsa State.*

**KEYWORDS:** linkage and advancement services, sustainable digital skills undergraduates

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### **INTRODUCTION**

In the contemporary educational landscape, the integration of digital literacy skills stands as a pivotal determinant of academic success and professional preparedness. As the world increasingly relies on technology, the acquisition and mastery of digital skills have transformed from mere assets to absolute necessities, shaping the foundation upon which future advancements, employability, and societal contributions are built. Amidst this technological evolution, the role of linkage and advancement services in fostering sustainable digital literacy among undergraduates in Bayelsa State emerges as a paramount concern deserving in-depth exploration (Charles-Owaba, 2022).

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Bayelsa State, nestled in the Niger Delta region of Nigeria, presents some unique educational landscape rich in cultural diversity but faced with challenges in access to and integration of digital resources and skills. The imperative for robust linkage and advancement services aimed at nurturing sustainable digital literacy among its undergraduate populace cannot be overstated. Understanding this imperative requires an exploration of several critical facets.

Omeodu and Charles-Owaba (2021) disclosed that the term "linkage" encapsulates the network, collaboration, and connectivity between educational institutions, technological infrastructure, industry partners, and governmental bodies. Linkage services facilitate the provision of accessible and state-of-the-art digital resources, such as computer labs, high-speed internet access, and software tools essential for nurturing digital literacy. Moreover, these services bridge the gap between academic curriculum and real-world applications, ensuring a seamless transition of theoretical knowledge into practical digital skills indispensable in today's workforce.

Charles-Owaba (2021) disclosed that advancement services are instrumental in propelling the continual growth and enhancement of digital literacy skills among undergraduates. These services encompass a spectrum of initiatives, including targeted training programs, mentorship opportunities, workshops, and seminars. They aim to cultivate a culture of innovation, critical thinking, and adaptability crucial for navigating the ever-evolving technological landscape.

However, the efficacy of these services in Bayelsa State hinges not only on resource provision but also on the strategic integration of digital literacy into the academic curriculum (Abazie, 2021). The alignment of courses with contemporary technological advancements, the practical application of digital skills through projects and internships, and the encouragement of active engagement beyond the classroom are integral elements that fortify the educational framework. The impact of comprehensive linkage and advancement services transcends individual skill acquisition (Kairutha, 2020). It extends to the empowerment of undergraduates as catalysts of societal progress, fostering a digitally literate populace capable of addressing local challenges through innovative technological solutions. Furthermore, such initiatives contribute to the broader goal of socioeconomic development by enhancing the region's competitiveness in the global digital economy (Zabairu, 2020).

The endeavor to cultivate sustainable digital literacy skills among undergraduates in Bayelsa State necessitates a concerted effort to establish robust linkage and advancement services within the educational framework. The evolution of these services is pivotal in not only shaping the academic journey of students but also in equipping them to thrive in an increasingly digital-centric world while becoming key contributors to the region's growth and development.

### **Purpose of the Study**

The study explored how linkage and advancement services can sustain the acquisition of digital skills among undergraduates in Bayelsa State, Nigeria. Specifically, this study achieved the following:

- i. Identified linkage and advancement services for sustainable digital literacy among undergraduates in Bayelsa State.

- ii. Determine the extent to which linkage and advancement services enhances sustainable digital literacy among undergraduates in Bayelsa State.

### Research Questions

The following research questions were formulated to guide the study:

- i. What are the available linkage and advancement services for sustainable digital literacy among undergraduates in Bayelsa State?
- ii. To what extent does linkage and advancement services enhance sustainable digital literacy among undergraduates 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, 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 principal officers of the ICT units, Linkage and Advancement units and undergraduates from the seven tertiary institutions in Bayelsa State. Quota sampling method was used to sample out 10 respondents each from each of the 3 units (Linkage and Advancement, ICT and Undergraduates) in the various institutions. This resulted to 250 respondents which formed the sample of the study. The instrument for data collection was a questionnaire developed by the researcher, tagged; "Linkage and Advancement Services for sustainable Digital Literacy Among Undergraduates *Questionnaire (LASDLAUQ)*" It consists of two (2) sections, namely; parts I and II. Part I measured the demographic variables of the respondents, while part II is further divided into: Section A and B. Section A, consist of a 10-item on the available linkage and advancement services for sustainable digital literacy among undergraduates in Bayelsa State and B consist of 10 items on the extent does linkage and advancement services enhance sustainable digital literacy among undergraduates in Bayelsa State. The instrument was structured on a 4-point rating scale of major (M), Moderate (Mo), Undecided (UD) and Minor (Mi) with corresponding values of 4, 3, 2, and 1 respectively for research question 1. For the research question 2, the items were structured as Very High Extent (VHE), High Extent (HE), Low Extent (LE) and Very Low Extent (VLE) which is rated as 4, 3, 2 and 1. The content and face validity of the instrument was done by 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 respondents that did not participate in the research but possess the same characteristics of the population of interest. The reliability co-efficient of 0.79 was obtained using Cronbach Alpha formula which was considered appropriate for this study. The data was analyzed using mean and standard deviation for the research questions. 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 a mean of 2.50 and above was interpreted a high level, while mean score below were interpreted as a Low level.

## ANALYSIS AND RESULTS

### Research Questions

#### Research Question 1

What are the available linkage and advancement services for sustainable digital literacy among undergraduates in Bayelsa State?

**Table 1: Mean and standard deviation of respondents on available linkage and advancement services for sustainable digital literacy among undergraduates in Bayelsa State.**

S/N	ITEMS	X	SD	REMARK
1.	The university provides adequate access to computers, internet facilities, and other digital resources for educational purposes.	3.2549	0.43688	<b>Major</b>
2.	The university offers comprehensive training programs to enhance digital literacy skills among undergraduates.	3.5637	0.49714	<b>Major</b>
3.	The university provides sufficient technical support (e.g., IT help desk) to assist students in using digital tools effectively.	3.4363	0.49714	<b>Major</b>
4.	Support and facilitate productive cross-country technical, academic and administrative interactions and exchanges involving undergraduate and post-graduate traineeship schemes.	3.4363	0.49714	<b>Major</b>
5.	Commercialization of research findings, inventions and innovations.	3.5673	0.49714	<b>Major</b>
6.	There are mentorship or guidance programs available to help students navigate and utilize digital platforms for academic purposes	3.2549	0.43688	<b>Major</b>
7.	The courses offered at the university integrate digital literacy skills effectively into their curriculum.	3.5637	0.49714	<b>Major</b>
8.	There are opportunities for practical application of digital skills learned in the classroom through projects, internships, or research.	3.4363	0.49714	<b>Major</b>
9.	The university organizes workshops, seminars, or events to create awareness about the importance of digital literacy.	3.4363	0.49714	<b>Major</b>
10	Students are actively encouraged to participate in initiatives promoting digital literacy beyond the academic curriculum.	3.5673	0.49714	<b>Major</b>
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**Source: Fieldwork (2023)**

Table 1 above shows the mean and standard deviation of respondents on available linkage and advancement services for sustainable digital literacy among undergraduates in Bayelsa State. All items had mean values above the cut-off mean of 2.50, which indicates that they are significant linkage services and advancement for sustainable digital literacy among undergraduates in Bayelsa State. Hence, mentorship or guidance programs are available, the courses offered at the university integrate digital literacy skills effectively into their curriculum,

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the university provides adequate access to computers, internet facilities, and other digital resources for educational purposes, the university offers sufficient technical support (e.g., IT help desk) to assist students in using digital tools effectively, comprehensive training programs to enhance digital literacy skills among undergraduates, commercialization of research findings, inventions and innovations, support and facilitate productive, traineeship schemes, organizations workshops, seminars, or events to create awareness about the importance of digital literacy and encouraged to participate in initiatives promoting digital literacy beyond the academic curriculum are major available linkage and advancement services for sustainable digital literacy among undergraduates in Bayelsa State.

### Research Question 2

To what extent do linkage and advancement services enhance sustainable digital literacy among undergraduates in Bayelsa State?

**Table 2: Mean and standard deviation of respondents on the extent to which linkage and advancement services enhance sustainable digital literacy among undergraduates in Bayelsa State.**

S/N	ITEMS	X	SD	REMARK
1.	The university provides adequate access to computers, internet facilities, and other digital resources for educational purposes.	2.2549	0.43688	LE
2.	The university offers comprehensive training programs to enhance digital literacy skills among undergraduates.	1.5637	0.49714	L.E
3.	The university provides sufficient technical support (e.g., IT help desk) to assist students in using digital tools effectively.	1.4363	0.49714	L.E
4.	Support and facilitate productive cross-country technical, academic, and administrative interactions and exchanges involving undergraduate and post-graduate traineeship schemes.	1.4363	0.49714	L.E
5.	Commercialization of research findings, inventions, and innovations.	1.5673	0.49714	L.E
6.	There are mentorship or guidance programs available to help students navigate and utilize digital platforms for academic purposes.	1.453	0.43688	LE
7.	The courses offered at the university integrate digital literacy skills effectively into their curriculum.	1.67	0.49714	LE
8.	There are opportunities for practical application of digital skills learned in the classroom through projects, internships, or research.	2.03	0.49714	LE
9.	The university organizes workshops, seminars, or events to create awareness about the importance of digital literacy.	2.45	0.49714	LE
10	Students are actively encouraged to participate in initiatives promoting digital literacy beyond the academic curriculum.	2.03	0.49714	LE

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**Source: Fieldwork (2023)**

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Table 2 above shows the mean and standard deviation of respondents on the extent to which linkage and advancement services enhance sustainable digital literacy among undergraduates in Bayelsa State. All items had mean values below the cut-off value of 2.50, which indicated a low extent. Hence, the extent to which linkage and advancement services enhance sustainable digital literacy among undergraduates in Bayelsa State is low.

## **DISCUSSION OF FINDINGS**

The results in research question 1 revealed that mentorship or guidance programs are available, the courses offered at the university integrate digital literacy skills effectively into their curriculum, the university provides adequate access to computers, internet facilities, and other digital resources for educational purposes, the university offers sufficient technical support (e.g., IT help desk) to assist students in using digital tools effectively, comprehensive training programs to enhance digital literacy skills among undergraduates, commercialization of research findings, inventions and innovations, support and facilitate productive, traineeship schemes, organizations workshops, seminars, or events to create awareness about the importance of digital literacy and encouraged to participate in initiatives promoting digital literacy beyond the academic curriculum are major available linkage and advancement services for sustainable digital literacy among undergraduates in Bayelsa State. This finding is in line with Brume-Ezewu (2019) who examined information communication technology (ICT) and digital literacy skills as mechanisms for effective teaching in Nigerian colleges of education and reported a high availability.

The results in research question 2 revealed that, the extent to which linkage and advancement services enhances sustainable digital literacy among undergraduates in Bayelsa State is low. this is in line with the findings of Kulkarni (2021) who assessed the digital literacy skills among secondary school children in Abuja and reported that the extent of awareness was low. Also, the study supports Abazie (2021) who assessed the level of digital literacy and use of ICT resources by secondary school teachers in Awka South, Anambra State.

## **CONCLUSION**

The study explored how linkage and advancement services can sustain the acquisition of digital skills among undergraduates in Bayelsa State, Nigeria. The study has established that mentorship or guidance programs are available, the courses offered at the university integrate digital literacy skills effectively into their curriculum, the university provides adequate access to computers, internet facilities, and other digital resources for educational purposes, the university offers sufficient technical support (e.g., IT help desk) to assist students in using digital tools effectively, comprehensive training programs to enhance digital literacy skills among undergraduates, commercialization of research findings, inventions and innovations, support and facilitate productive, traineeship schemes, organizations workshops, seminars, or events to create awareness about the importance of digital literacy and encouraged to participate in initiatives promoting digital literacy beyond the academic curriculum are major available linkage and advancement services for sustainable digital literacy among undergraduates in Bayelsa State. Also, the study, affirmed that the extent to which linkage and

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advancement services enhances sustainable digital literacy among undergraduates in Bayelsa  
State is low.

### **Recommendations**

Based on the findings of this research, the following recommendations were made:

1. The tertiary institution management should ensure that Linkage and Advancement services are harnessed for sustainable improvement of digital literacy among undergraduates in Bayelsa State
2. Undergraduates should be encouraged to improve their digital skills.

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